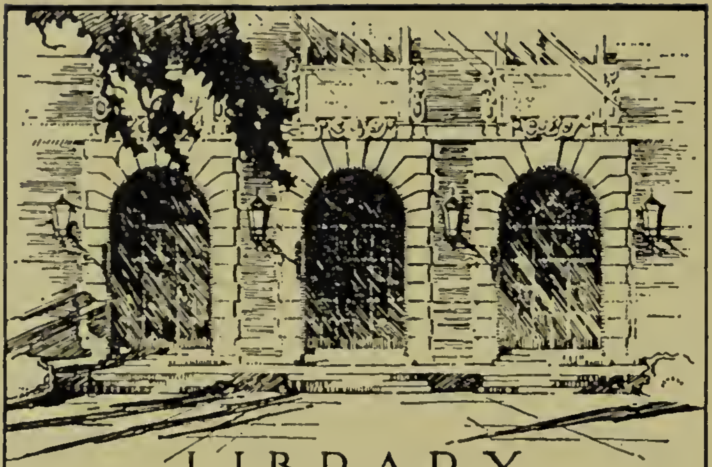

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THE

BRITISH MEDICAL JOURNAL:

BEING THE

JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

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EDITED FOR THE ASSOCIATION BY

ERNEST HART, Esq.,

HTHALMIC SURGEON AND LECTURER ON OPHTHALMIC SURGERY AT ST. MARY'S HOSPITAL MEDICAL SCHOOL, LONDON.

VOLUME II FOR 1868.

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BRITISH MEDICAL JOURNAL:
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EDITED BY ERNEST HART, Esq.

LONDON: SATURDAY, JULY 4, 1868.

LECTURES
ON THE
PRINCIPLES OF SURGICAL DIAGNOSIS:
ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

By F. LE GROS CLARK, F.R.C.S.,
Surgeon to St. Thomas's Hospital, and Examiner in Surgery in the University of London.

Lecture I.—Introductory.

Mr. President and Gentlemen,—

When honoured by being elected to the Professorship of Human Anatomy and Surgery in this College, the duties of which I am now about to fulfil, I became sensible of the difficulty of selecting a suitable subject on which to address so learned an audience. My attention has not been directed to any branch of anatomy or surgery the special cultivation of which could constitute a justification or apology for authoritative teaching, or could hold out a hope of my enunciating any startling or attractive novelty. Under these circumstances, and in these days of aspiring talent, it may probably be thought by many that I should have exercised a wiser discretion, if I had acted on my first impulse to abstain from tempting adverse criticism by declining the proffered honour; and I fear that, having accepted it, my temerity is rather aggravated by the selection of what may be deemed an ambitious subject. Having thus, Sir, placed myself in this dilemma, I fear I have no alternative but to crave forgiveness for my temerity, and the indulgent consideration of my auditors, whilst I strive to fulfil an arduous and responsible duty, which I certainly should not have sought, but which, however I might shrink from its performance, I did not feel myself at liberty to decline.

The natural alliance which exists between anatomy and surgery invests their combined pursuit with a peculiar interest to both student and teacher—a circumstance which is readily intelligible when we bear in mind that the lessons imparted and acquired are applied knowledge; and most learners have a greater aptitude in the acquisition of such information than in learning the rudiments of a science, the application of which they must defer until the details are mastered. And it is assuredly more agreeable to teach such practicable application of facts, than to dwell on abstractions, which fail to fix the attention of the majority of students.

I do not mean, by these observations, to imply that anatomy is to be studied solely in subserviency to surgery, or that my remarks are not applicable, though in a minor degree, to other branches of professional study. In many of our pursuits, from the earliest period of education, it is requisite to instil the habit of patiently waiting until lapse of time shall unfold the *cui bono* of our work; but, in anatomy, I apprehend that the practical application of what is learned cannot be inculcated too soon.

The subject on which I have elected to address you is so comprehensive, and constitutes so important a section of medical science, that I think it excusable to devote my first lecture to the consideration of some circumstances which appear to me to have an influential bearing on its successful study and pursuit. The diagnosis of disease is the chief end and purpose of clinical instruction, and continues to be cultivated by the scientific practitioner with unrelaxing earnestness throughout his career.

The natural and fitting tendency of all scientific research is the development of principles or laws; and this result is promoted, though not actually attained, by the grouping and classification of the fruits of observation. The attractiveness of discovery, which is the legitimate goal of persevering and intelligent industry, is apt to allure and beguile the impatient student; and I fear that, in medicine as in other pursuits, hasty generalisation is still a prevalent fault, and operates to the prejudice of its scientific progress. The explanation of this may be sought and found in the eagerness of the ardent student to distinguish himself by finding some short by-path to fame; and statistical records are not infrequently laid under contribution to prove the reality of an hypothesis or to support a crude suggestion. This abuse of an invaluable element in the advancement of medical knowledge is much to be regretted. Statistical records, to be available, must be extensive, and at the same time must be handled with discretion and entire impartiality; for, in the hands of the enthusiast or of the insincere inquirer, statistics not only lose their trustworthiness, but become a source of mischievous fallacy and of incalculable error.

The fact is, that the real discoveries in practical medicine are few, compared with the legion of *re*-discoveries which each successive generation makes—so many old dishes, as my esteemed master, Mr. Travers, once remarked to me, served up under new covers. Yet these rediscoveries, which every attentive observer makes for himself, are by no means to be despised by their proprietor: they constitute, in fact and in the aggregate, the most valuable part of his experience—a possession, indeed, which in great measure is purely personal, which was not inherited, and which cannot be transmitted to another. Yet it is sad to contemplate how vast the stores of invaluable knowledge which are thus lost to the profession, as each practised hand and eye and matured judgment are withdrawn from amongst us by death; and it is much to be deplored that so many of our public men, surgeons of eminence, whose appointments afford them large means of observation, should leave no record of their experience. I am aware that something is being done by the publication of Hospital Reports; but might not the evil I complain of be further remedied by more free intercourse between the Surgeons of our different Hospitals, whereby an interchange of thought and opinion might be facilitated, and the results recorded, from time to time, in some available and enduring form?

The accumulation of materials is essential to the progress of surgery, as of every other branch of practical medicine, and, indeed, of science generally; but their true and permanent usefulness is realised more in a reflected than in a direct sense: it consists in the establishment of Principles—that which I may venture to term inductive surgery, as distinguished from the study of those consequences of laws which is the occupation of the deductive mind. The inductive genius is rare, the master builders are few; yet we may all recognise the value of their discoveries, and endeavour to impress on those whom we teach the importance of leading principles. I venture to dwell on this point, as one of vital interest in our schools; for I believe that, as hasty generalisation is to be deprecated on the one hand, so our students should be taught, on the other, not to attach an undue value to details—to that which is visible and tangible. It is a serious, and I fear not uncommon, fallacy for them to adopt, that the chief purpose and end of their student-life is to collect precedents for future use. Certainly these opportunities ought not to be neglected; but the learner should habitually realise that these facts, by which he lays so much store, are suggestive of higher and more general principles, and that they possess a significance which it is his business to unfold and master; as it is thus alone that he can employ them with safety and with advantage. The treatment of fracture affords a familiar illustration of my meaning; for, without some reference to the principles which guide the surgeon in his treatment, the student must often be much perplexed in what he witnesses. The valuable principle which Pott inculcated, of position to secure muscular rest, is, I believe, generally recognised; but its adoption is not, because it cannot be, universal. Obstacles which cannot be thus controlled interpose, and necessitate the introduction of another and opposing principle, and the consequent employment of a different mode of treatment: yet Pott's principle is just and rational. How little, then, does the student carry with him which will avail him in future practice, if he merely watch the position of a limb, and the form of splint adopted in certain isolated cases of different fractures, and do not seek further the explanation of the principle, and of the numerous exceptions to it. The treatment of hæmorrhage, under various circum-

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stances, affords another illustration in point; and so, indeed, does every branch of surgery in a more important or minor degree. But perhaps in no instance is the value of principles, in diagnosis as well as treatment, more aptly exemplified than in the various complications which are met with in the class of injuries which I propose to discuss in these lectures. And I would remark, that principles are not to be ignored or rejected because they do not admit of universal application. If we adopt them, they must become, so to speak, articles of faith on which we may rest, although we fail to discern always their bearing or relation in particular instances.

The subtle agencies which influence the living organism so materially modify existing conditions at different times, in diverse temperaments, and under varying circumstances, as to compel us also to modify and adapt our treatment in individual cases. Yet, I repeat, this is no reasonable ground for falling back on the empiricism of precedent: it may, indeed, stimulate us to further exertion and research, in the hope of attaining, by another step in generalisation, to some higher principle or law, which shall include the apparent exception to that which we now recognise as our guide.

The learned philologist, Max Müller, in speaking of the historical progress of the science of language, remarks that "each physical science begins with analysis, proceeds to classification, and ends with theory;" but he goes on to observe, that "there are frequent exceptions to this rule; and it is by no means uncommon to find that philosophical speculations, which properly belong to the last or theoretical stage, were attempted in physical sciences long before the necessary evidence had been collected or arranged." Such, in truth, appears to me to be the history of the progress and development of all the natural sciences. The love of order and classification leads to premature generalisation, notwithstanding the consequent inconsistencies. Various are the expedients then resorted to for the purpose of reconciling circumstances and opinions which are irreconcileable in the then existing state of our knowledge; but, as we climb the hill and our sphere of vision becomes more extended, the perspective of the surrounding prospect is corrected; each object assumes its proper place and due proportions, and harmony reigns where formerly all was discord and confusion.

The progress of generalisation in pathology and therapeutics is necessarily impeded by the obscurity which envelopes the operations of the living organism. We know so little, comparatively, of the influence of life, that we are continually foiled in our anticipations; our calculations, based on antecedent experience, miscarry; and we are compelled to forego conclusions, from the lack of coherence in our data. Observations, which we at one time felt justified in placing in the same category, cease to exhibit their former resemblance and relation when seen under different circumstances; and the step we thought we had gained must be reluctantly retraced. Even that which we witness after death—the morbid anatomy of the changed textures, as displayed under the microscope, and subjected to chemical analysis—fails to inform us on points of deepest interest to us,—the *modus operandi* of the morbid agent, whatever it may be. We see the passive result, but miss the active agency by which this result was produced. Even therapeutic surgery is often coarse in its application, and purely mechanical in its operation. Certainly, where there is not positive mutilation, the wider the divergence from Nature's indications, the more disastrous is the consequence of her resistance, and the greater, usually, the risk of failure. "Naturam expellas furcâ, tamen usque recurret."

Yet some steps in advance have been made, especially in the accurate observation of chemical and mechanical changes in the living frame. The development of caloric generally in varying states of disease, and even topically in local affections, is a subject fraught with much interest, and promises to throw light on many obscure conditions which it is the province of the surgeon to treat. The electric condition of the body, considered dynamically, under various conditions of diseased action where the nervous system is involved, is another field for investigation to which I had looked hopefully in the illustration of these lectures. But I find this delicate subject so surrounded by difficulties arising from the many elements of disturbance, both intrinsic and extraneous, that I have been compelled to defer the experiments I had contemplated.

To the microscope we are much indebted for the display of morbid changes in the living mechanism. It has revealed to us that the first material step in inflammation is disordered, and then arrested, movement of the blood-corpuscles. But why does this occur as the consequence of some exciting cause acting locally? There is not, so far as I have been able to observe, any transudation, at this earliest stage, of the serous menstruum from the capillaries; the only reasonable explanation which offers itself, as it appears to me, is that a non-material agency is interfered with. There is a mutual living relation between the blood-vessels and their contents—its nature is still subject of conjecture—the interruption of which, for even a brief space, is fraught with risk, and its suspension for a longer time with certain mischief. The remaining steps in the development and consequences of inflammation are capable of demonstration. Yet, as this subject is treated and taught, I think much of the complexity which surrounds it is due to inattention in generalising; and might be removed by the avoidance of expressions which are liable to misconstruction. Perhaps I should speak more correctly if I say such expressions as I refer to should have their conventional meanings strictly defined and limited. Thus, acute and chronic inflammations simply refer to degrees of intensity or duration; and specific inflammation in all its varieties, means only this condition occurring a sa consequence of, or allied with, some constitutional peculiarity. In all of these instances, the actual state which we denominate inflammation is identical, though varying, as I have said, in degree; and modified, in this respect and in the consequences it entails, by accidental circumstances. Again, as regards these consequences, it is too often the habit to view them as distinct from each other, and to describe them under the several heads of adhesive, suppurative, ulcerative, phagedænic, and gangrenous inflammation; whereas the same remark applies here as to the pre-existing condition—these results are only different phases of the same state, modified by accidental circumstances.

In slow ulceration, or progressive death of texture, the dead or effete matter is thrown off with the material supplied for repair. In phagedæna, the rapid destruction, without reparative effort, leaves the foul and sloughy surface. In gangrene, death falls suddenly on this part *en masse*; and the dry or moist form is associated with the existing condition of the part, whether natural or acquired.

Again, an ulcer is but an open abscess, and an abscess a closed ulcer. In one, the effete matter and accumulated but wasted material for reparation are retained; in the other, they are continually draining away. The abscess must be converted into a hollow ulcer before it will heal. A sinus holds an intermediate position between the two; it has no special characteristic, except that which is due to its form and the consequent mechanical obstacle to its healing. So, in like manner, although there are distinguishing features in the consequences of inflammation affecting different tissues, there is identity in all essentials; the points of non-resemblance being dependent on the physical peculiarities of the affected textures. Bone-abscess, diffused suppuration, caries, necrosis, what are they but the consequences of the same proximate causes acting in bone, as in tissues differing in the physical characters of density and resistance and in their elementary constituents? But in all there is the same organisation—the same, that is, in quality, though varying in degree; and there is thus, in all, the susceptibility to injury, the necessity for repair, and the liability to death; therefore we find, as we should anticipate from such data, that the same phenomena are witnessed, in these various lesions, attending the reparative inflammation or hyperæmia of the injured part, though stamped by the peculiarities of locality or of tissue, which thus impart apparently special characteristics that are, in reality, accidental and unimportant. So, likewise, in actual reparation. The agglutination of the broken ends of a severed bone, the healing of an abscess, the separation of a sequestrum, the closing of a carious cavity, are essentially identical with the healing of wounds in soft parts by adhesion, the separation of slough, and granulation.

I do not adduce those facts as novel; but simply as exemplifying the importance of generalising where we can, and of the value of general principles in reading the phenomena of disease and in interpreting its problems.

Inflammation is not now viewed as essentially mischievous in its tendency—a disease *per se*, to be combated by all available means in our power. Its friendly services are, indeed, under certain circumstances, hailed with satisfaction. I would even venture further, and regard inflammation as always friendly in design, though that intention is often frustrated, or aggravated into mischief. I think it doubtful whether inflammation is ever the *primum mobile* in the evil consequences which are, in one sense justly, attributed to it. Even in such inflammations as those affecting joints or the lungs, some peculiarity of constitution, coupled with a hidden concatenation of accidental circumstances, predisposes to that general condition, in which some locally acting cause suffices to light up an inflammatory attack—a conjecture which is supported by the various results, in different individuals, consequent on the same exciting cause. Thus, local injuries, exposure to cold or malaria, may be followed by different degrees and diverse sequences of inflammation, or attacks of various organs, according to the idiosyncrasy, temperament, or hereditary tendency of the patient; periostitis, pneumonia, rheumatism, peritonitis, may result, in different individuals, from the same exciting cause, whilst others will escape unscathed; and even the same individuals may secure immunity at one time, whilst, under other occult circumstances, they succumb to some acute inflammatory attack. To say that one organ is more susceptible than another, or that the same individual exhibits a varying degree of susceptibility at different times is no explanation. What we want to know is, the reason of this suceptibility; and in this we should have revealed to us the real predisposing cause which, when stimulated into activity, suffices to excite the resentment of the vascular system.

In surgery, these relations, so momentous in diagnosis, are often less obscure, and therefore more demonstrable than in medicine; and yet they require comprehensive study to render them intelligible. Exclusive pursuits in our profession, embodied in the practice of specialties, have, for this reason, the effect of retarding the progress of scientific surgery. In defence of this innovation, it has been urged that a division of labour, as well as an exclusive devotion of time and ability to one particular class of diseases, must have the effect of extending our knowledge, by the enlarged opportunities which thus fall to the few, and the consequent accumulation of materials from which to draw accurate conclusions as to the pathology and treatment of disease. I venture to suggest that there is much sophistry in this plausible reasoning. The effect of such division of labour is unquestionably often to concentrate the practice of some particular branch of surgery in the hands of those who have striven to acquire a special reputation; but, in proportion to such success, the very exclusiveness of the pursuit must leave the practitioner neither time nor opportunity to cultivate other branches of his profession. Nor is it in human nature to resist what I may term the warping influence of exclusive study under such circumstances. Conditions are liable to be viewed through a special medium; and defective experience, if not practical ignorance, in general surgery, compels the specialist to trust to precedent in his limited sphere. The *art* of surgery —its special manipulative details—may be acquired by the exclusive practitioner, and he may affect authoritative teaching in his particular subject; but, I apprehend that scientific surgery cannot look for aid in this direction; and I look with more than doubtful misgiving on a principle of subdivision which offers so much temptation to members of our profession, because fostered and fed by public patronage and liberal remuneration.

I wish to be understood as making these remarks in reference to *exclusive* practice. That accident or taste should direct the surgeon's attention to some particular subject, is both natural and admissible. Most of our best monographs are, indeed, due to this circumstance; and their value is, I contend, greatly enhanced thereby. Such are the dissertations of Cooper on dislocations, Lawrence on hernia, and of Brodie on diseases of the joints, not to refer to many older monographs, and others of more recent date.

May I not also exemplify my meaning by reference to that speciality, the operative department of which is, by common consent and for an obvious reason, permitted to remain in the hands of few—I allude to ophthalmic surgery. The most successful cultivators of this department of surgery have been gentlemen whose position and reputation were also associated with general surgery; and the most valuable contributions in ophthalmology have been derived from such men as Travers, Lawrence, Tyrrell, Dalrymple; and such is likewise the case with their successors. It could not, in truth, be otherwise in the pathology of an organ the diseases of which have been, in a qualified sense justly, styled an epitome of those of the whole frame.

Other incidental, but not necessary, evils result from this splitting into fragments of our professional practice. The popular success which so often attends an exclusive pursuit is a temptation to the production of crude compilations, containing premature generalisations and authoritative expression of opinions, which the experience of the writers in no way justifies. And I would venture to add, that early success in practice is not the boon which many young men are disposed to regard it; and I am sure it is, in the aggregate, detrimental to the science of the profession which their natural endowments calculate them to illustrate and adorn. There is a risk that they will acquire merely empirical knowledge if their time is at once absorbed by the exacting requirements of active practice. In spring time the seed must be sown; and it is well that the early energy of youth should be devoted to those scientific pursuits, which at once elevate the standard of the student's qualifications, and which have contributed largely to the development of surgery as a science. Sure I am that the fruit of many a promising worker's time has been lost to the profession in consequence of the premature engagements of a successful practice—a misfortune which rarely befals him whose ambition it is to acquire a reputation as a general surgeon; whereas, the history of our profession supplies many striking instances among our distinguished surgeons of the fruitful cultivation of science in their youth, as well as the permanent influence such early devotion of their time and talents has had on their own future career.

It may be objected, sir, that this subject, to which I have ventured to call attention, affects only the metropolitan cities, and, in a minor degree, our large provincial towns. This is, in one sense, true; yet the prejudicial influence on education must be felt throughout the breadth and length of the land, if special hospitals are to absorb the public practice, and exclusive practitioners are to monopolise the public confidence. But I will not pursue this question further. Perhaps I have already dwelt too long on an innovation which, I apprehend, contains within itself its own corrective.

As I have frequently employed the expressions "Science" and "Principles" in reference to the study of surgery, it may be convenient that I explain what meaning, in this relation, I attach to these words. I believe that the principles of surgery are too often regarded as derived directly from observation only, without inductive reasoning founded thereon. But there are greater truths beyond the immediate ken of our senses. Science deals with the mutual relations of objects observed or facts recorded; it implies classification, arrangement, harmony, and the development of knowledge based on admitted truths. Thus, independent facts are not to be employed as precedents only; they must be subjected to the test of comparison, grouped into classes, and thus moulded so as to form the basis on which intelligible principles of practice are founded.

The successful pursuit of the loftier walks of science implies a high order of intellect. To observe assiduously, and even to apply, judiciously, acquired knowledge, does not constitute even the ordinary man of science. To possess a just claim to this title, he must cultivate the habit of estimating correctly the evidence of his senses, and of judging between that which is simply matter of opinion and that which is true; and he must also further possess the qualifications to weigh, compare, and analyse, and the capacity to educe just conclusions from his premisses.

If the foregoing remarks are just, I think that the inference which I desire to draw from them may be conceded; viz., that long observation and practical experience are not the only measure of the surgeon's capacity to practise his profession successfully; because, if he trust to precedent alone, he does not practise scientifically. And I am the more anxious to insist on this view, as the public estimate of professional capacity is, unfortunately, measured by a very different standard. It might be an interesting subject for speculative inquiry, were this the place and time, why charlatanism of the most palpable and shameless character should so readily impose on the credulity of even the educated public. The responsibility of this anomaly does not rest with the profession, but is due to the partial education of those who are deluded, and to their consequent inability to distinguish between the claims of scientific cultivation and ignorant pretension. I remember a passage in the preface to Dr. Whateley's *Elements of Logic*, in which the author defends the study of this science with his usual acumen and pointed felicity of illustration. "A sailor," he remarks, "will perhaps despise the pretensions of medical men, and prefer treating a disease by common sense; but he would ridicule the proposal of navigating a ship by common sense, without regard to the maxims of nautical art." And so, he proceeds to point out, with respect to other special pursuits, educated persons would not recommend a reliance on common sense alone, to the neglect of those systems of rules which, in their respective arts, have been deduced from scientific reasoning aided by experience. Let us hope, as I am disposed to anticipate, that, when a larger infusion of the scientific element is mixed with the literature taught in our public schools and universities, the status and acquirements of the professional man will be more justly appreciated, because better understood, by the public.

On the other hand, the early instruction of our young men must ever have an influential bearing on their future career; and the habit of looking beyond that which is presented to the observation of the senses cannot be too soon instilled. In almost every walk of life, we see the same truth exemplified, whether it be in the philosopher, the artist, the soldier, or the mechanic. It is not the man of precedent who rises above the level of mediocrity; but it is he whose capacity enables him to avail himself of combinations which elude the ordinary observer, and whose foresight appears to endow him with an intuition, which is, in reality, the offspring of deep study and careful thought. In a sound preliminary education we have the best guarantee that these mental requirements will be satisfactorily fulfilled. Our profession may be congratulated on the progress which has been made of late years in securing a higher standard of preparatory education in those who aspire to practise medicine and surgery; and I think, Sir, that this College has no reason to be ashamed of either a tardy recognition of this important step, or of indifference or laxity in the effort to realise it. Yet it is to be regretted that there must be a limit to the required qualifications both for the study and practice of medicine. Unfortunately, the inducements which now exist for young men to enter the profession are not of such an alluring character, in comparison with other engagements, as to admit of the introduction of further impediments by applying a too rigid test of scientific proficiency. The law of supply and demand might, no doubt, regulate admission to our profession, if a corresponding principle determined the remuneration of the medical man. If such were the case, there could be no objection to an exclusive standard. But we know this is not so, either in public appointments or in private practice; and the necessary consequence of such a standard would be to starve the public service, and to deny to our teeming population a sufficient supply of qualified medical men.

(*To be concluded.*)

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

HEAD AND HAND PRESENTATION.

By E. T. R. TENISON, M.D., Keith Terrace, Shepherd's Bush, W.

MRS. F., aged 21, was in her first labour at the full period. The membranes ruptured five hours from the commencement of the pains. On examination two hours afterwards, I discovered the presentation to be head and right hand, the fingers of which reached to the border of the posterior fontanelle. I made several attempts to push the hand and arm upwards, but all my efforts were fruitless. As the uterine action was not immoderate, and the pelvis roomy and well developed, I determined to leave the case to nature. The labour progressed favourably, and a healthy male child was expelled twenty-two hours after the membranes ruptured. The suffering was not more than usual in first cases, with the exception of the last half hour. The patient made a good and rapid recovery.

Head and hand presentations are excessively rare. Churchill states that no example is mentioned by Drs. J. Clarke, Collins, or Jansen; and only three (in 75,903 cases) by Mesdames Lachapelle and Boivin.

CELLULAR INFLAMMATION OF MAMMA.

By JOSHUA PARSONS, Esq., Frome.

MRS. J., aged 43, was confined on December 17th, 1862. The labour was tedious, owing to malposition of the child, the vertex presenting; but the case did well for twelve days, when rigor and great general debility, with much pain of the right breast, were complained of. Poultices and a supporting, but not stimulating regimen, were resorted to, and as soon as a red point was perceived an incision was made. Nothing but sanious watery fluid was discharged; and on enlarging the opening the interior of the swelling was seen to be filled with a dark coloured, brawny slough. In spite of energetic treatment, the patient sank rapidly, and died on the twenty-first day after delivery. The whole organ was found converted into an undistinguishable gangrenous mass.

On the 5th of March in the present year I attended in the same house Mrs. K., aged 23, who was delivered of her first child after an easy labour. On the seventh day she complained of rigors with pain and swelling of the left breast. Poultices were applied for several days, but the general symptoms becoming serious, a deep puncture of the breast was made in the most painful part, and some pus discharged with temporary relief. The pain and febrile symptoms repeatedly returned for more than two months, attended by a succession of small abscesses in all parts of the organ, which, after discharging streaky pus for a few days, closed up, leaving a deep sulcus where each occurred. During the whole of the time healthy milk exuded from the nipple, and the glandular tissue appears to be left untouched, though the organ is reduced to a singularly shrunken and distorted condition.

The above cases appear to me to record a rare form of disease, as well as a curious coincidence. The structure attacked seems to have been the cellular, rather than the glandular, textures of the part, and the inflammation to have been of a furuncular type, as characterised by the great pain and constitutional disturbance, in contrast with the small amount of swelling and discharge, and the nature of that discharge in the latter case.

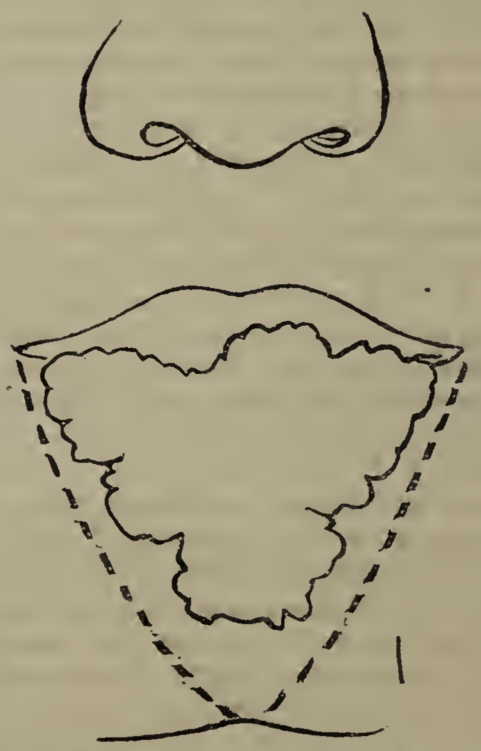
NOTES ON THE OPERATIVE SURGERY OF THE FACE.

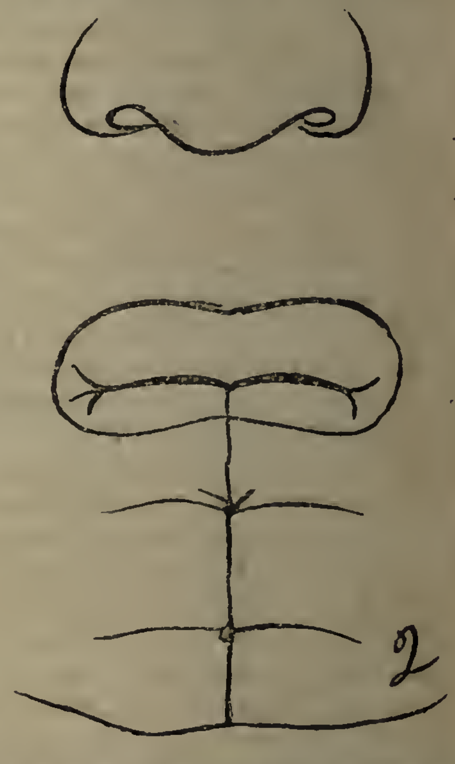
By FURNEAUX JORDAN, F.R.C.S.,
Surgeon to the Queen's Hospital, Birmingham; Professor of Surgery at the Queen's College; etc.

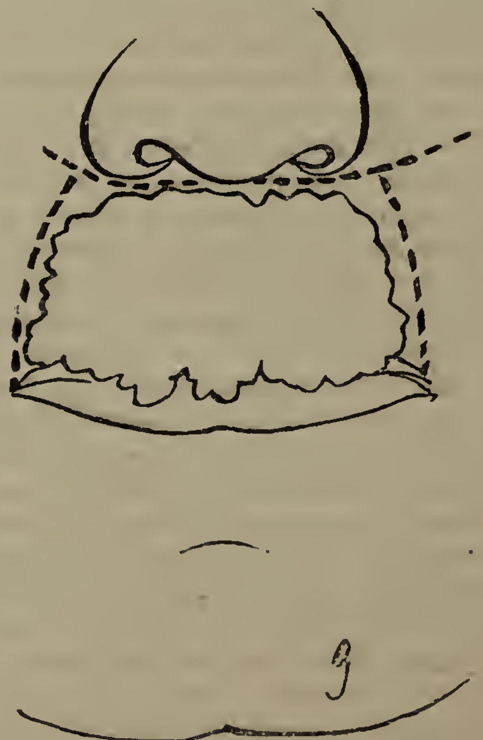
I.—THE RESTORATION OF THE LIP, LOWER OR UPPER, AFTER COMPLETE REMOVAL.

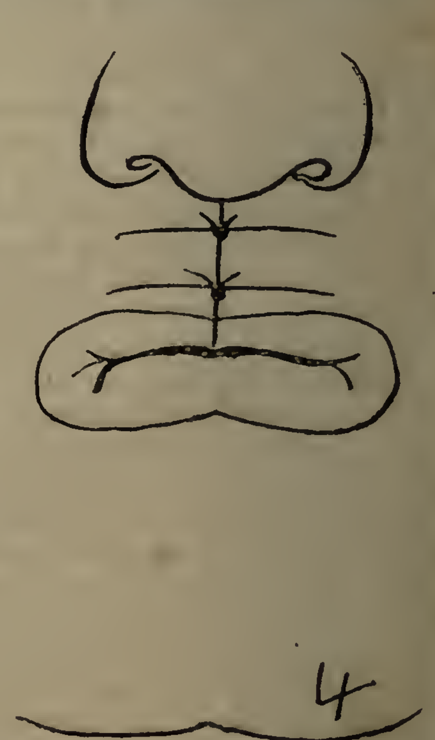
CIRCUMSTANCES may arise which require the complete removal of either the upper or the lower lip. Not long ago, I was required to remove the whole of the upper lip, an operation which I performed in the manner indicated in the third and fourth diagrams. I have several times removed the whole of the lower lip as seen in figs. 1 and 2. I am, therefore, able to say, unhesitatingly, that a mouth may be made from one lip. The lower can be made into lower and upper lips; the upper can be made into upper and lower. The cut margins (of cheek) can be brought together with certainty of union. Any one may bring the angles of his mouth together over the closed jaws. The cut parts are to be brought together (this is very important) with thick silver wire. Wire as thick as an ordinary brass pin causes no irritation; it does not cut, and very powerful traction can be made with it. The simple suture should be used, and should include a great amount of tissue. The cheek should be separated freely from the jaw, so that the deep parts may come together easily as well as the skin.

With intentional brevity, all other details are left to be told by the diagrams. Fig. 1 shows the removal of the lower lip; and fig. 2, the appearance a few days afterwards. Fig. 3 shows the removal of the upper lip; and fig. 4 the appearance after a few days. The latter two diagrams also show the best method of operating on severe hare-lip—not forgetting the thick wire.









Advantages.—The incisions are the simplest and the least extensive that can be made for the removal of the disease; yet they are sufficient for the restoration of the lip. The natural margin of the lip is retained. The only cicatrix left is the single one in the middle line. The resulting mouth shortly becomes an excellent one, perfectly useful, and not inartistic.

A CASE OF VAGINAL ATRESIA AND ABSENCE OF MENSTRUATION CURED BY THE USE OF TANGLE-TENTS.

By W. MURRAY, M.D., M.R.C.P.Lond.,
Physician to the Newcastle-upon-Tyne Dispensary, etc.,

MISS A. B. C., a young lady, aged 27, slightly marked with the pits of small-pox, consulted me fifteen months ago. She complained of a severe pain in the hypogastric region, and radiating pains in the back, loins, and lower extremities. She had suffered in this way for some years, and she said her pains were periodically increased at intervals of five or six weeks. On further investigation, it appeared she had menstruated only once or twice in her life, and that the show scarcely amounted to a teaspoonful on each occasion. On proceeding to examine the uterine organs, I was surprised to discover that the vagina was a mere *cul-de-sac*, an inch deep, terminating in a conical depression. The walls of the *cul-de-sac* were made up of cicatricial tissue; and at the fundus of the depression in which the *cul-de-sac* terminated, I detected a minute opening* through which a No. 1 elastic bougie would scarcely pass. In order to make a further diagnosis of the case, I determined to introduce a tangle-tent into the minute orifice I had discovered, and then to pass the uterine sound through it. This was done; and on passing the sound, I introduced my finger into the rectum and felt the point of the instrument projecting through the solid barrier in the vagina into a cavity above. Beyond this upper part of the vagina I could feel a round body very like the uterus in size and shape. As the dilatation had caused some pain, and as no immediate result followed it, the patient and her friends declined further interference at this time, and I did not see her again until August last. I then found her suffering as before, and very much altered in appearance; her countenance was haggard, her manner hysterical, and her nutrition impaired by constant vomiting. She was now prepared to go through any kind of treatment to obtain relief.

Having obtained the assistance of Mr. J. B. Fife, whose advice and surgical skill proved invaluable throughout the whole procedure, I dilated the small opening running through the closed portion of the vagina, until it admitted the tip of the little finger. At this point an accident occurred, from the string attached to the tent having given way, leaving the tent firmly impacted in the newly formed canal, where it remained for about thirty hours, when Mr. Fife removed it by making a slight notch in the canal on each side of it. When the tent was removed, the finger could be freely passed through the opening it had formed into the upper part of the vagina, and there we found a somewhat contracted but perfectly formed cervix uteri. The dilatation was now continued freely by sponge-tents until a large speculum could be passed into the vagina. The uterine sound was then passed, and a very minute os uteri was discovered by it. The sound, when twisted a little to the right, could be introduced an inch deep into the cervix uteri. This enabled us to secure the introduction of a small softened tangle-tent in the direction indicated by the sound, and by a little careful manipulation, the tent slipped almost overhead into the uterus. When this tent was withdrawn the next day, a very free passage into the uterus remained. Both the vagina and the uterus now showed an obstinate disposition to contract and assume their former condition, so that we were compelled to incise the cervix uteri freely with Greenhalgh's hysterotome, and to keep both the canal of the cervix and the vagina constantly dilated for some days.

Exactly one month from the time the hysterotome was used, the menstrual flow appeared and continued for three days. In every respect the period and the flow were normal. From this time the patient improved rapidly in general health. At the end of another month, finding the os uteri slightly contracted, I introduced a tent for a few hours, and gave the patient two doses of aloes. After this, the menstruation again took place, but it was unfortunately stopped by a severe fright received by the young lady during the following night. From this time all went on well till another month elapsed; then she began to suffer pain, to vomit, and to assume a hysterical manner, but after waiting patiently for a few days, relief of all these symptoms was obtained by the reappearance of menstruation for the third time. On this occasion, it was full, free, painless, lasted five days, and left the patient quite well, without ache or pain. Six or eight menstrual periods have now occurred; for the most part they have been very satisfactory, and on each occasion they have been followed by great improvement of the patient's health.

The chief point of interest in this case is the entire abeyance of the menstrual functions of the uterus during a period of at least fourteen years from the age of puberty. The entire want of action previous to the dilatation of the parts was proved by the total absence of retained menstrual fluid. I might add, that it is quite clear the closure of the vagina was produced by the extension of small-pox into the vulva, and subsequent ulceration of the walls of the vagina. The case strongly commends the use of dilatation instead of cutting in cases of closure of mucous canals of all kinds; and where no opening exists to permit of this, I should introduce a fine trocar, and then leave a tangle-tent in its place as a commencement of the dilating process.

In a subsequent communication, I hope to draw attention to the cure of false anus by the use of tents, and to show that by stretching such fistulous openings, we can rely upon such an amount of contractile inflammatory action being set up as to close them.

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* I must mention the existence of several large pits near the vulva. These, the patient's mother remembers, were the result of small-pox, from which her daughter suffered when she was two years old

THE PATHOLOGY OF RIGORS:

ILLUSTRATED BY A CASE OF HEMIPLEGIA, FROM DISLOCATION OF THE ATLAS, PRECEDED AND ACCOMPANIED BY CONSTANT SHIVERING AND SENSE OF COLDNESS.

BY J. BURNEY YEO,
Resident Medical Tutor in King's College.

THE following case, extracted from the second volume of Cruveilhier's *Pathological Anatomy*, fell under my observation after reading Dr. G. Johnson's lecture in the BRITISH MEDICAL JOURNAL on the Pathology of Rigors. As it appeared to me to afford very remarkable, and, of course, entirely undesigned, support to the explanations therein given of their phenomena, I called Dr. Johnson's attention to the case; and he agreed with me that it was of so singular a nature as to deserve translation.

Femme La Croix, aged 68, came under notice on October 13th, 1832, with hemiplegia of the right side; paralysis both of sensation and motion. The hemiplegia came on suddenly, while she was in the hospital of La Charité, into which she had been admitted six months before for *severe shivering, which never left her* (un grand frisson qui ne la quittait jamais). Warm baths were prescribed for her; and it was after one of these baths that she became paralysed. One curious point is, that at first she was uniformly paralysed, or rather enfeebled, on both sides (affaiblie des deux côtés), and it was only later that the hemiplegia came on. She stated that ever since the commencement of her illness she had *felt frozen* (glacée). The hottest applications could not make her warm. The cold "penetrated even to the marrow of her bones". The surface of the body was cold to the touch, like "touching a cold-blooded animal." She complained of severe pain behind the right ear, and suffered much from painful cramps of the lower limbs. She remained in this condition till Jan. 30th, 1833, when she died.

During all this time, the coldness was constant. Cruveilhier observes, "La constance de l'algidité était toujours pour moi un nouveau sujet d'admiration."

The *post mortem* examination shewed that the *raison anatomique* of the hemiplegia and other symptoms was a displacement of the atlas, producing compression of the cord immediately below the medulla oblongata. This compression had borne more on the right than the left half of the cord, and had led ultimately to its disorganisation. In the right half, the *débris* of the cord was grey, without a vestige of white substance. In the left, the *débris* contained still a little white substance. The annular ligament of the odontoid process was large and yellowish, with little chalky plates in its substance, much like the alterations undergone by the coats of arteries. The odontoid, or check ligaments, were much weakened, and their fibrous bundles separated by a reddish substance. They permitted the odontoid process to play backwards and forwards so as to produce an incomplete luxation.

Cruveilhier observes that the displacement was due to disease of the ligaments uniting the odontoid process to the occipital bone and the atlas, probably of rheumatic origin.

There is no evidence whether in this case, at the onset of the shiverings, the sense of cold was simply subjective, as we know it to be in ague and in many other cases. It may have been so; although at the time when this patient came under Cruveilhier's observations, six months after the first appearance of these symptoms, and when she had become hemiplegic, the surface was unusually cold.

There can be little doubt, when one takes into consideration the cause of the displacement in this case, that it must have been gradual; and the primary effect of such gradual displacement would be an interference with the vascular supply of the cord, either by direct pressure on the spinal arteries, or by pressure and stretching of the vertebral arteries, which this partial dislocation of the atlas must of necessity produce. In either case, there would be a corresponding anæmia of the cord.

This case, then, appears to offer something like a demonstrative proof that there exists a very close connection between the phenomena of rigors and an anæmic condition of the spinal cord. The singular character of the phenomena presented by this case did not escape Cruveilhier's observation; but the only kind of explanation he attempts is vague and unsatisfactory in the extreme. He says, "The coldness, so manifest and so considerable during the course of the illness, lends support to the opinion of those physiologists who consider the spinal cord as the principal centre of animal heat."

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. THOMAS'S HOSPITAL.

CASE OF ADDISON'S DISEASE.

(Under the care of Dr. BRISTOWE.)

THE following case of Addison's disease was referred to in an early number in January this year, when detailing the notes of a case which died under the care of Dr. Greenhow in the Middlesex Hospital. The boy at that time was daily expected to die; but, as occurs in so many cases of the kind, and indeed is a striking symptom of the disease, he recovered so much, that he enjoyed a fair condition of health, and was sent to Walton Convalescent Hospital. The fatigue, however, was too much for him; and, as usually happens, he was suddenly prostrated; and, although he improved again slightly, he speedily died. The case presented most of the typical symptoms of the disease; but the scars remaining of a pale colour, while the surrounding skin was deeply impigmented, is certainly unusual. Another interesting feature observed was the depth of discolouration of the skin decreasing when the patient was improved in health.

W. A., aged 16, employed at a wholesale druggist's, was admitted into the hospital on September 30th. He had been in excellent health until about Christmas of 1866. At that time he fell through a trapdoor, and bruised the sacral region; he injured himself, however, so slightly that he continued at his work as usual. To this accident he attributed his present illness. It would seem that pain in the sacral region came on about three weeks after the accident, and continued, off and on, though never very severely, ever since; but somewhere about the same time a change of colour was first detected in his skin. His mother observed that he got "yellow-like all over," but that it could not be "the yellow jaundice," because his "eyes were not yellow." The change of colour was recognised by himself, and by all who knew him. He had been becoming darker and darker throughout his illness. He had been very weak from the commencement, and his weakness had increased upon him; he had been quite unable to work, and had been confined to his bed, more or less; now and then being up for a day, generally for a few hours only, and not unfrequently in bed all day long. He had complained also of frequent headaches, and of frequent nausea and sickness; yet his appetite had generally been good. He had lost flesh somewhat. He had had weakness in the legs, but probably only proportionate to weakness of other parts. There did not appear to have been any actual paralysis. It should be added that his original complexion was said to have been tolerably fair, and like that of other members of his family.

When admitted, he had an universal deep bronze hue, darker in some parts than others, and especially dark in the lumbar and dorsal regions. A few slight scars, and old (?) marks (especially the latter) were deeply discoloured round the edges, their centres affording a marked relief against the surrounding discoloration. He complained of slight tenderness about the sacrum; but there was no other evidence of any disease there. He was extremely weak, but in no degree paralysed. He had a very fair appetite, but was occasionally sick. The tongue was clean; the bowels regular. There was no evidence whatever of heart-disease, lung-disease, of hepatic, or of renal affection. He was thin, but far from being emaciated.

On the evening of admission, he caught cold, which was followed by some sore throat, and slight bronchitis. These symptoms, however, left him after a few days, and he returned to the state in which he was on admission.

Since then his symptoms continued very much as they were stated to have been before admission. He was extremely weak, rarely able to remain up for more than a few hours a day, sometimes, however, seeming to regain a certain amount of strength for several days together, and every now and then keeping his bed entirely for a week or more. His sickness continued, but varied very greatly. Sometimes he was for days, and even for a week or two, without any feeling of nausea; at other times he suffered from attacks of sickness every day, or every day or two, and occasionally he had severe attacks of sickness, lasting for several days together. The severe attacks of sickness were always associated with severe occipital headache, and, indeed, the headache, in a less severe degree, generally attended his attacks of nausea or vomiting. His tongue was always clean; his appetite generally good (even at the time when he was suffering from sickness); his bowels for the most part regular, and his urine normal in quantity and quality; his pulse was always very small and weak, and somewhat quick. Since the slight attack of bronchitis on admission, he at no time had cough, or other indications of pulmonary disease, and the heart's sounds were quite normal. There never was the slightest symptom of paraplegia; nor indeed any good reason to believe that his sacral tenderness was due to any positive disease in that part, or even to the effects of his fall. Shortly after his admission, his weight was found to be seven stone ten pounds. It diminished a little since then; but not more than two or three pounds. He grew, however, a good deal in height. His temperature (under the tongue) was ascertained shortly after admission to be 98·2.

During his stay in the hospital he had two or three attacks, in which his life was despaired of. The worst of these occurred about the beginning of November, and lasted several days. He then complained of severe occipital headache, great nausea and depression, with coldness of surface (especially in the hands and feet), and blueness of nose. His pulse at the same time was scarcely perceptible. His temperature under the tongue was 98·4. He was treated during this attack with brandy and other stimulants.

It may be added to this, that later in October he suffered for several days from severe pain in micturition; there was, however, no crystalline matter in the urine. Again, early in December, he had an attack of diarrhœa.

December 20th. Although there was no marked increase in the severity of his more urgent symptoms, he had for the last few days been becoming weaker. Able from the first to get up and walk about a little, he could now scarcely be said to do so; for when attempting to walk, he staggered a little, seemed to have difficulty in lifting his legs, especially the left, and took advantage of every help in crossing the ward, and was thoroughly exhausted and forced to get into bed again. He still moved freely in bed. He became very depressed when anything unusual occurred around him. He had grown in height considerably since admission, and apparently lost flesh, although the emaciation was by no means marked. The bronzing appeared to vary with his symptoms, the sister and nurses having remarked that the colour was deeper when he felt better. The pain in the head was still present. There were small patches of a brownish colour on the buccal mucous membrane, and a blue mark on the gum, over the last molar on the right side, on the edge of the tongue on the same side, and a faint line of the same character, at least, on the upper lip. Pulse 84, small and weak. Appetite bad, thirst urgent. Percussion over both apices was moderately fair, and also the breathing. At no time had the temperature been above normal. He was unable to pass urine in the recumbent position. His urine was acid, copious, and very pale, specific gravity just over 1000; it contained no albumen, and gave considerable effervescence on the addition of nitric acid.

At this time it seemed as though death were at hand. He rallied, however; and, with the exception that on two or three occasions during the next month or two he had a comparatively slight attack of headache, sickness, and depression—slight, either from lasting a short time only, or from not being very intense—he enjoyed what was for him a fair average condition of health. Indeed, on March 19th, he seemed as well as he was at the time of admission. His tongue was clean, his appetite good, his weight a few pounds heavier than it was at first. He was, of course, exceedingly weak, could bear no fatigue, and the dark brown colour of skin remained. He was then sent to Walton Convalescent Hospital. But the fatigue of the journey brought on a severe attack of sickness, headache, and dyspnœa, from which he did not recover. At the end of five days, he was brought back to St. Thomas's. He was in the last stage of debility; his extremities were cold; his nose was red; his pulse was scarcely perceptible; he had severe pain in the head and back and constant sickness. For a day or two after admission, he improved a little; but on the 26th the symptoms increased again in severity, and on the morning of the 27th he died.

At the *post mortem* examination, the only two abnormal conditions discovered were—1, the extreme and general discoloration of the skin; 2, tuberculated disease of both suprarenal capsules; the right being enlarged and weighing eighty-six grains, the left atrophied and weighing sixteen grains only. Every other organ was perfectly healthy.

The treatment throughout was very simple. In the first instance, quinine and iron were employed; but, during his severe attack, before mentioned (in which his life was despaired of), a mixture, containing chloroform and ammonia, was prescribed. The chief treatment, however, had been dietetic. He had a fair amount of stimulus (wine or brandy), and all the nourishing food that he could take.

UNIVERSITY COLLEGE HOSPITAL.

POPLITEAL ANEURISM: CURE BY PRESSURE IN TWENTY-EIGHT HOURS.

(Under the care of Sir Henry Thompson.)

The patient, J. D., aged 59, a labourer, was admitted on April 16th. About seven weeks previously, he was at work making a wheat-stack. He had to pitch up straw to a great height, and consequently had to tiptoe a great deal. He did not feel any pain at the time, but the following morning he felt soreness and pain in the right popliteal space. He continued, however, for a fortnight, to walk five or six miles to work and back daily, although it caused him great pain. He then left off, as the pain was too great to allow of his walking, and the limb was considerably swelled. He, after some slight treatment, was advised by his medical man to come to the hospital.

On admission, there was an oval tumour, about the size of a small orange, in the popliteal space, painless, smooth, non-adherent to the skin, and distinctly circumscribed. It was situated immediately over the aspect of flexion, and extended rather more below than above the head of the tibia. There was a distensible excentric impulse synchronous with the heart's systole, ceasing when the femoral was compressed, and refilling again with a bound when the pressure was removed. Pulsation was perceptible in the anterior peroneal artery. In the anterior, but not posterior, tibial artery, a blowing, but not very loud murmur, was audible on auscultation. The cutaneous veins were enlarged over the tumour. The circumference of the affected limb was five-eighths of an inch in excess of its fellow.

As the tumour was small, it was thought expedient first to adopt the treatment by flexion. Accordingly, on the following day, the limb was bandaged, gently flexed upon the thigh, and retained in that position by additional bandages. The flexion caused no pain. The limb was kept in this position four days, until 2 P.M. on the 21st, by which time no difference in the pulsation was perceptible. Mr. Ernest Hart saw the case, and flexed it more completely. The limb, however, was set free on the 23rd, as the knee had become swollen and painful. On the following morning, at eleven o'clock, the leg having been previously bandaged with stocking elastic, a Carte's compressor was applied over the femoral artery just opposite Poupart's ligament, and another one about four or five inches lower down. The patient himself, a very intelligent man, changed the compressor about every three-quarters of an hour, and felt little discomfort from its application. *By half-past hree on the following day, twenty-eight hours after the first application of he compressor, all pulsation in the tumour had ceased.*

The patient from this time had no bad symptoms; he slept and took his food well. The compressors, which had been kept on at half-pressure since the pulsation ceased, were loosened altogether on the 28th, although not taken off the limb; and the bandages partly undone. He was able gradually to straighten his leg. The tumour gradually diminished, and left merely a small hard tumour. He got up for the first time on May 9th, but was unable to put his foot to the ground; and slight œdema resulted on the following day, which, however, gradually diminished. He was speedily able to walk, at first with the ssistance of crutches; and left the hospital on the 8th, perfectly well.

BEDFORD GENERAL INFIRMARY.*

ANEURISM OF THE POPLITEAL ARTERY CURED BY COMPRESSION.

By W. G. Johnson, Esq.

AMUEL R., a healthy-looking man, aged 27, employed in the marine ervice, was compelled to leave it two years ago, on account of an neurism of the right popliteal artery. He was sent to Haslar Hosital, where continued pressure by the finger was kept up for five weeks; but, as this pressure seems to have been performed by the nurses, it would appear doubtful whether it had a fair trial. It did not, however, succeed; and a tourniquet was then applied, which became unbearable at the end of twenty-four hours, and had to be discontinued. The femoral artery was then tied in the middle of the thigh, and he left the hospital cured. His employment at gun-drill necessitated a constant bending of the knee. His next employment was in draining and digging, which likewise compelled the legs to be bent.

He was admitted into the Infirmary on July 27th last, with a popliteal aneurism of the left side. The tumour was about the size of a small hen's egg. Two tourniquets were applied to the thigh—one immediately below Poupart's ligament; the other at the middle of the thigh. Pressure was made by both, but one always exerted a much firmer pressure than the other; and, as soon as the pressure became uncomfortable, one tourniquet was relaxed, and the other tightened. In this way he went on, alternating the pressure of the tourniquets (keeping the surface underneath them sprinkled with starch), for eighteen weeks. Pressure was then gradually taken off, and the tourniquets removed. Pulsation had entirely ceased. There was, however, a slight return of pulsation at the end of three weeks, which rendered it necessary to apply a single tourniquet for three more weeks, at the end of which time it had again ceased. He was kept in the hospital two more weeks, and discharged cured in January last. I saw him again a few days ago, and examined his leg. It appeared to be cured, a small solid mass occupying the place of the former pulsating tumour. He has been employed in bricklaying for the last three months.

MIDDLESEX HOSPITAL.

EXTRACTION OF A SEWING-NEEDLE FROM THE RECTUM FIVE DAYS AFTER IT HAD BEEN SWALLOWED.

(Under the care of Mr. Hulke.)

Slender, flexible, though strong objects, as small fish-bones, commonly enough traverse the alimentary canal when swallowed and are voided *per anum*; the same not uncommonly happens when a pin is swallowed. Needles frequently pierce the walls of the canal, and produce grave results. An instance of this, where a needle pierced the aorta and gave rise to fatal hæmorrhage, was reported not long since from this hospital.

In the following case, however (for which we are indebted to Mr. Thomas Flower, Senior House-Surgeon), the needle did not cause any inconvenience till it reached the rectum, where its arrival was marked by extreme pain. A man, aged 37, came to the out-patient room January 17th, 1868, stating that five nights before, while drinking a pot of beer, he felt something scratch his throat, but he had not thought anything more of it. He complained now, however, of pain in the lower bowel, so severe that he compared it to a stake being thrust into him. It had come on suddenly the night before, without any assignable cause. No fissure on the verge of the anus or other cause calculated to produce such suffering could be seen, but at the depth of the forefinger what was at first thought to be a pin could be just felt. The sphincter ani was so spasmodically contracted and the examination so painful, that the foreign body could not be removed without chloroform, under the influence of which a slender three-bladed urethral speculum was passed, and a sewing-needle with a loop of thread was removed with forceps. One end of the needle was sticking in the gut, while the other end was free and directed upwards. A little soreness continued for a few days, after which no more inconvenience was felt.

DUBLIN HOSPITAL REPORTS.

MERCER'S HOSPITAL.

SYPHILIS, FOLLOWED BY LEFT HEMIPLEGIA: EPILEPTIFORM CONVULSIONS: EXOPHTHALMIA: TOTAL LOSS OF VISION, WITH LATERAL DEVIATION OF RIGHT EYE: PTOSIS OF LEFT EYELID, WITH PARTIAL LOSS OF SIGHT OF LEFT EYE: RECOVERY.

(Under the care of Dr. Moore.)

We are indebted to Mr. Richard Townsend, B.A., for the following report.

John O'S., aged 27, formerly a soldier, was admitted into Mercer's Hospital, on the 29th May last, the immediate cause of his admission being an ulcerated throat. In 1858 this patient stated that he contracted venereal disease, which, at the end of six weeks, was cured by mercury, and was not followed by either sore throat or eruption. He had venereal disease (chancres) again in 1861, in 1864, and in 1866, the last attack being attended with sore throat. In February, 1867, whilst in a railway carriage, he fell asleep, and on awaking found he had completely lost the power of his left side. While under treatment for the paralysis of the left side, he lost the sight of his right eye. About a year ago he first suffered from epileptiform seizures, which have recurred up till the present. About the first of May last he remarked his left eyelid was beginning to droop, and that his urine escaped involuntarily.

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* Read at the annual meeting of the South Midland Branch, 1868.

On admission into hospital, he looked sallow and dingy, the "septum narium" was gone, and there was a profuse purulent discharge from the nostrils. He had ptosis of the left eyelid, his left pupil was dilated, and comparatively insensible to light; vision in the left eye was impaired, but the sight of the right eye was totally gone, and there was lateral deviation of the eye-ball. There was exophthalmia of both eyes, especially of the left. The uvula had been destroyed by ulceration, and there were several foul ragged ulcers on the anterior pillars and on the hard and soft palate; he never suffered from nodes, nor was there any eruption on his skin. The "fits" occurred on an average four or five times during the week, but occasionally two or three in one day. Neither the sensation nor temperature of the paralysed side was altered. The urine was of normal specific gravity, and contained no albumen. He was ordered to take eight grains of iodide of potassium in syrup of bark three times a-day, and "nitrate of copper" was applied to the ulcers on the hard and soft palate.

On June 8th, the exophthalmia was disappearing; and he could elevate the left eyelid much better. He had no fit for a week, and the ulcers on the throat were looking more healthy; the urine was of normal specific gravity, and free from albumen.

On June 15th, with the exception of the sight of the right eye (which seemed irremediably gone), the patient was in every respect improved. He had had no epileptiform seizure for fifteen days; the ptosis of the left eyelid was scarcely perceptible; the sight of this eye was better; the ulcers were healed; and he walked without any sign of paralysis. He was dismissed; but was ordered to continue the iodide of potassium in eight-grain doses three times a day.

Dr. Moore remarked that this case bore a close analogy to that of the woman, E. D., who sometime ago was admitted into Mercer's Hospital. Shortly after her marriage, she contracted syphilis from her husband, which was followed by an eruption, sore-throat, nodes, epileptiform convulsions, and hemiplegia (left). In this case, also, there was drooping of the left lid and strabismus; all these symptoms yielded to iodide of potassium, and she left the hospital without any evidence of paralysis. In neither of these cases of left hemiplegia was there any aphasia, or even imperfection of speech, at any time.

SYPHILIS: RŪPIA: RIGHT HEMIPLEGIA WITH APHASIA.

(Reported by Mr. DAVID BROWN.)

J. E., aged 25, was admitted into Mercer's Hospital early in June. He states that his father was a waiter, of intemperate and dissolute habits, and died of paralysis; his mother is alive and healthy. From the year 1859 till 1865, this patient admits that he was never free from venereal disease of some form, during which time his habits generally were bad. On the night of April 22nd, 1865, he went to bed with perfect use of all his extremities; on the following morning, he was found with loss of power of his right side, and unable to speak. He remained in this state for some time. Gradually, however, he recovered the use of his extremities to some extent, and also his speech; he had no fits, and his memory was unimpaired.

On admission into hospital, he looked a man prematurely old, spoke slowly and indistinctly, was slightly deaf, dragged the right leg, and was unable to raise any substance with the right arm. There was an eruption over his face, nose, and shoulders, and marks of rupia on his forehead, forearms, etc. The temperature of both sides was normal; his urine was 1030 specific gravity, loaded with lithates, contained no albumen; he was thirsty, and could not sleep. He was ordered five-grain doses of iodide of potassium in syrup of bark three times a day, liberal diet, and porter.

The following is the present state of the patient. He speaks more intelligibly; his appearance generally is improved; he can make more use of his arm; he still drags the right leg; the eruption is disappearing from the face. He has been ordered to continue the iodide of potassium.

Dr. Moore dwelt on the importance of instituting the most careful inquiry into the family history in such cases as those detailed, before arriving at any conclusion as to their real character. In the first case, there was no evidence of the paralytic and epileptic affections being "hereditary," and therefore the repeated syphilitic contractions must be regarded as its most rational exciting cause. In the second case, the dissolute habits of the patient's father (who died paralysed) must be coupled with the man's own syphilitic contractions, thus rendering the case a combination of "hereditary" and "tertiary" syphilitic paralysis. Dr. Moore went on to say, still we were not to attribute to syphilis every paralytic affection which might set up in a patient who had repeatedly contracted syphilis; but if he or she had never suffered from nervous affections of any kind, and if the epileptic or paralytic symptoms took place without any other obvious exciting cause, and also if they occurred about the date of "tertiary" symptoms generally, he thought they might fairly and safely be termed syphilitic, more especially as paralytic affections, the result of lesions of the central ganglia from hæmorrhage, were comparatively rare to young persons. As regards the treatment, Dr. Moore placed most reliance on the iodide or bromide of potassium, especially the former. Occasionally, the biniodide of mercury or corrosive sublimate in doses of one-sixteenth of a grain will be found efficacious combined with bark.

REVIEWS AND NOTICES.

THE SURGICAL TREATMENT OF THE DISEASES OF INFANCY AND CHILDHOOD. By T. HOLMES, M.A. Cantab., Surgeon to the Hospital for Sick Children and St. George's Hospital. London: Longmans. 1868.

MR. HOLMES is rapidly securing a place among the foremost surgeons of the country, and may certainly claim already a leading position amongst the surgical writers of the day. Few men, who have so short a past and so brilliant a prospect before them, can look back upon so much sterling work. Not to speak of his constant and devoted services to the Pathological Society, of which during several years he has been a secretary and always one of its most valued contributors, and the volunteer author of the Classified Index to its *Transactions*, he has edited Gray's *Anatomy;* laboured for years to the completion of the splendid pathological collections of St. George's; taken a large part in the preparation of the admirable and elaborate Catalogue lately noticed in our columns; prepared, jointly with Dr. Bristowe, a standard Report on the Construction of British Hospitals, for the Medical Officer of the Privy Council; taken a very active share in the compilation of the new nosology of the College of Physicians; greatest of all his labours, he has arranged, edited, and largely written in, the *System of Surgery*; co-edited the *St. George's Hospital Reports;* and, besides probably other work less publicly known, now issues a complete treatise on the Surgery of Children's Diseases. In all the various works to which we have referred, there is not a portion which has not been well and thoroughly done. It is all true work, with the materials accumulated from all sides, fairly used, honestly acknowledged, and judiciously treated. It all bears a relation to his own personal opportunities of examination and research, and has an individual vitality which springs from his own intellect and thoughtful labours on the matter in hand. This volume offers no exception. As surgeon to the Hospital for Sick Children, he has had large opportunities of comparing nature with books, and disease with the classical accounts of it; of watching the results of treatment, practising "conservative surgery", and testing alleged improvements in the surgery of infants. In this handsome and well-illustrated book, Mr. Holmes traverses the whole field of the surgical diseases of childhood. We regret that we cannot here follow him; but we could not point to a safer guide. Writing with an honesty that approaches sometimes to brusqueness, and with a plainness that is occasionally startling in its Saxon strength of diction, he has produced a masterly treatise that will endure, and to which surgeons of this and of other countries will turn as an exposition of the best principles and practice of this day, and the most complete guide extant to the subject of which it treats.

NOTES ON BOOKS.

Army Marriages. By BROWN BESS. Belfast: 1868. The system of enforced celibacy entails, no doubt, a good deal of immorality; but the life of a married soldier is anything but such as we can recommend, involving, as it does, a good deal that is reprehensible and immoral too. There must be a large increase in the barrack accommodation before the soldier's wife and family occupy the positions which respectable and modest women ought to do. We should be very glad to improve the soldier's moral position, and raise him in the social scale, by allowing a considerably larger number to marry, if decent accommodation and provision could be made for them, under the circumstances of a soldier's life; but we do not see how this is to be done.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 4TH, 1868.

OLD AND NEW BRANCHES: CUMBERLAND AND HAMPSHIRE.

To pause for a moment, and, Janus-like, to cast a glance on the past and future, is a privilege that we take in passing the threshold of each secular epoch. The half-year which we end, and that which we commence, are radiant with promises more than half fulfilled. The actual growth of the Association continues after the extraordinary rate which began early last year, and which it is almost permissible to regard as no longer exceptional. During last year, seven hundred members joined the Association; already this year we have more than four hundred and fifty new associates. A new and valuable Branch is this week formed in Cumberland and Westmoreland, including a limited and not very thickly peopled district, but starting with forty members. We have reason to hope that in Hampshire, where we count many members in Southampton, Portsmouth, and the vicinity, but where there is as yet no Branch organisation, early steps will be taken so as to enable the numerous and public spirited practitioners of that district to take full part in our great professional work, to be adequately represented in our general organisation, and to add to and receive from the strength of our fraternal union. Some of the questions now most actively agitated by our Association, and about to be discussed at Oxford, are questions which men such as those of Hampshire, whose names will be found in a report elsewhere, will be recognised as peculiarly fitted and interested to discuss. Among these questions are—the kind of education desirable for the practice of State Medicine; the machinery for the means of obtaining direct representation in the Medical Council—for our Association has advanced this question by an important stage since its meeting at Dublin; free admission to hospitals; tariffs of medical fees and remuneration of club medical officers—in continuation of the resolutions of our Birmingham Branch meeting; gratuitous medical service; medico-legal evidence; Poor-law medical reform. For the discussion of these grave questions, which will be brought forward at the General Meeting in August by authorised persons—and for efficient action upon them—we need all the force which can be given by a wide-spreading organisation, a thorough union of classes, and a permanent central representative body, with far extending local sources of information and authority, such as our British Medical Association can and does furnish. Hence we hail with satisfaction the prospect of fresh Branches of this great Association in any districts yet unprovided; and watch with pleasure the daily increasing number of our members. We are able to offer them, by the advantages of co-operation, as a material return for their modest annual subscription of a guinea, besides the advantages of association, a weekly journal such as private persons sell for more than half as much again, and which yet provides the funds for organisation; and at the annual and Branch meetings, we enjoy each year in an increasing degree the advantages of union for the highest professional and social objects. The meeting at Oxford promises to illustrate the full strength of the Association. Assembling in a great and ancient seat of learning, with a President and President-elect, each remarkable for his elevation of character and wide sympathies, no less than for his culture and scientific eminence, we shall meet in sections carefully arranged with a view to scientific efficiency, and presided over by the most eminent professional persons, and shall yet find time for earnest efforts to aid the ethical and social progress of the profession and the public, and abundant opportunities for cordial association and for the strengthening of the ties of personal friendship and of general fraternity.

THE WEEK OF THE MEDICAL COUNCIL.

Medical Education and the Constitution of the Council have formed, as there was reason to believe they would, the chief subjects of discussion in the Medical Council. On Medical Education the debate was long, and, to our mind, in a great measure unnecessary, as the question to be decided was little more than the formation of a Committee, and the discussion will have to be repeated when the Report is brought up. The Committee, as well as one on State Medicine, moved for by Dr. Acland, will not report till next year. The Medical Education Committee is large, and is to take the evidence from teachers. The State Medicine Committee, while smaller in number, includes some of the best and most experienced thinkers on the subject. Its report will be of great value; for this is peculiarly a subject which requires to be considered *ab ovo*, and to be moulded into a sound, symmetrical, well-balanced shape, by those who have thought most about it. On the Constitution of the Medical Council, the Council, after receiving a deputation from the Committee of Council of the British Medical Association, and discussing at great length a motion by Dr. Andrew Wood in favour of the election of members by the general body of the profession, came to the conclusion by a large majority, that, under present circumstances, it was not expedient to consider the question of attempting to obtain a change of constitution. Our readers will find a full report of the discussions at another page.

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Dr. Hood has been elected Treasurer of Bethlehem Hospital. He will, we believe, retain his office as Visiting Physician to the Chancery Lunatics.

It will be observed that Mr. Swinton has announced his views as a candidate for the University of Edinburgh, in a very able and statesmanlike address.

A requisition is being numerously and influentially signed by Glasgow and Aberdeen graduates, calling upon Dr. Andrew Clark to come forward as a candidate for the representation of the Universities of Glasgow and Aberdeen. His politics are of a broadly liberal character, and he is an advocate of compulsory education. Dr. Clark has great powers of thought and expression, and is eminently fitted by natural gifts for a parliamentary career.

At the Children's Hospital, Mr. Howard Marsh has been elected Assistant-Surgeon. There were two other candidates—Mr. Berkeley Hill, whom the Medical Committee placed first; and Mr. Alexander Bruce, who was placed second. Mr. Marsh was third, and was not recommended. It is much to be regretted that the Managing Committee should have set aside the recommendation of their Committee, although all three are unquestionably good and eligible men. It is especially so, if we are correctly informed that Dr. West did not convey to his colleagues the impression that he intended to endeavour to upset, in the General Committee, the decision arrived at in the Medical Committee, in whose deliberations he took part.

WE grieve to have to announce the death of Matteucci, celebrated throughout Europe as a physicist and electrician of the highest eminence.

A VERY numerously attended and satisfactory meeting of the Contagious Diseases Association was held this week in London, under the presidency of Sir Thomas Watson, Bart., M.D.; when that eminent physician, Lord Lifford, Sir John Simeon, Bart., M.P., Mr. Mitford, M.P., Mr. Skey, and others, supported its views.

SIR GEORGE GREY took occasion on Tuesday, in the House of Commons, *à propos* of the recent question by Mr. Grove, to explain the circumstances under which Mr. Holmes was allowed to hold the office of Surgeon-in-chief to the Police and retain private practice. He paid a just compliment to his attainments and character.

THE Lord Justice-General Inglis has obtained a much larger and more general support, in his candidature for the rectorship of the University of Edinburgh, amongst graduates of various political opinions, than was at first expected. His Committee includes a most formidable array of influential names.

WE are glad to see that Mr. Goddard will call attention in Parliament to our remarks of last week upon the necessity for public mortuaries, and will help to enforce it upon vestries, and thus assist in carrying out this important public object.

THE first number of the new monthly literary venture of Mr. Macmillan—*The Practitioner*—appears this week, in very attractive guise. It is excellently printed, and contains a variety of very interesting and purely therapeutical matter, valuable in every-day practice, by M. Maisonneuve, Dr. Russell Reynolds, Mr. J. N. Radcliffe, Dr. Sidney Ringer, and Dr. Anstie; together with reviews, summaries, notes and queries, and a bibliography. It well fulfils the promise of its prospectus, and is likely, we should think, to be both useful and welcome to a large circle of practitioners.

THE usual annual dinner of the Fellows of the Royal College of Surgeons, after the election of members of Council, took place on Thursday afternoon at the Albion Tavern, under the chairmanship of Professor Partridge, F.R.S., who was supported by several distinguished Fellows. It was stated that the gentleman selected for the chairman next year was our learned associate, Mr. James Syme; and that Mr. E. C. Hulme, the Honorary Secretary, had resigned that post, which he had so ably filled for several years, and was succeeded by Mr. Thomas Carr Jackson, Surgeon to the Great Northern Hospital—an announcement which gave great satisfaction.

THE annual meeting of the Metropolitan Association of Medical Officers of Health was held on Wednesday, July 1st, at the Scottish Corporation Hall, Fleet Street, when Dr. Druitt was re-elected President for the ensuing year; Mr. Liddle, Drs. Aldis and Iliff, Vice-Presidents; Dr. Aldis, Treasurer; and Drs. Buchanan and Vinen, Honorary Secretaries. The Secretaries presented a report recapitulating the work of the Association, and especially the subjects discussed at the evening meetings: the earth system of conservancy; animal vaccination, described by Dr. Ballard; Dr. Letheby on the degree to which the atmosphere is vitiated by respiration; Dr. Haviland on the connexion between geology and disease; Mr. Torrens on his Artisans' Dwellings Bill; and Mr. Chadwick on the construction of dwellings. Dr. Letheby had continued his able series of water-analyses.

THE PROTOXIDE OF NITROGEN.

THE use of this gas as an anæsthetic in this country is steadily on the increase. It has been successfully administered twice a week since we first noticed the subject to a number of patients at the Dental Hospital, and also in private practice. Great improvements have been made in the instruments employed for its administration; and the suggestion which we made on the first introduction of the gas that it should be compressed and liquefied for use, has been successfully realised on a small but practical scale. On Monday and Tuesday morning, Dr. Thomas W. Evans, of Paris, to whom we owe the present introduction of the gas in this country, administered the anæsthetic in the liquid state to several patients at the Dental Hospital, Soho Square, and it has been used in one operation for squint. He had brought the gas compressed into this state in a bronze bottle, a suitable valve being attached, by means of which the required quantity was allowed to escape into an ordinary bag. Anæsthesia was induced with the usual rapidity and success. Dr. Evans further proposes to employ the gas in the liquid state as a local anæsthetic by refrigeration, and demonstrated its powerful effects in this way. Of its use in this way we can say little until further experience has been gained. On the other hand, as a general anæsthetic, we have in London its autograph credentials of success in about 27,000 cases; and they exist elsewhere in more than twice that number.

THE DUKE OF EDINBURGH.

EVERY one who has seen Prince Alfred since his return must be gratified by his healthy bronzed aspect; and, although he has lost flesh, he is in excellent health. The serious and very painful wound which he suffered not only healed with remarkable rapidity—after a period of acute pain and much anxiety—but has left absolutely no traces; and there is now even barely a skin-mark to indicate an injury which was within a hair's breadth of causing instant death.

CHEMICAL PROMOTIONS.

THERE is some stir in the chemical world *apropos* of existing vacancies and probable promotions. Unfortunately the number of remunerative offices which can be held by scientific chemists in this country is small, and the emoluments, for the most part, are absurdly insufficient. That accomplished chemical pluralist, Dr. Frankland, having resigned one of the least lucrative of his positions, Dr. Odling will succeed him—whether wholly or in part seems not quite clear. Dr. Odling will, we believe, associate with himself a co-lecturer at St. Bartholomew's Hospital; and this will probably create a vacancy in the chemical chair of another metropolitan medical school. Dr. Lyon Playfair will also, it is understood, vacate the chemical chair in the University of Edinburgh, in the case of his election to represent the University in Parliament. It is expected that he will be succeeded by Dr. Anderson, Professor of Chemistry in the University of Glasgow.

THE CONSTRUCTION AND FITTING-UP OF METROPOLITAN WORKHOUSES.

THE Poor-law Board have just issued a circular letter informing the guardians of the poor in London that they have prepared instructions for the guidance of architects in the construction of workhouses and workhouse infirmaries. These instructions are intended as a general guide to the architect employed by the guardians, and are not designed unduly to fetter his discretion in the preparation of plans for the consideration of the guardians, or to apply to every detail connected with the construction of the workhouses; but the Poor-law Board say that, "they will generally be guided by these instructions when considering plans which may be submitted to them for their approval." With regard to the fittings, the circular says:—"It appears to the Board to be desirable that there should be a nearer approach to uniformity in the mode in which workhouses are furnished; and they are of opinion that, whilst for the ordinary wards only a few conveniences, and those of a simple character, are required, the sick wards should be more carefully furnished, and all the necessary medical appliances supplied. It is the duty of the medical officer, under the regulations of the Board, to suggest the number of articles that may be required from time to time; and they do not doubt the guardians will duly consider such suggestions, or that they will be made by the medical officer with all reasonable discretion, and with due regard to economy."

ELECTION OF COUNCILLORS IN THE ROYAL COLLEGE OF SURGEONS.

THE election of four members of Council took place on Thursday. The number of votes for the candidates were:

Fergusson	206	Wilson	108
Simon	157	Partridge	103
Humphry	148	Cooper (G. L.)	58
Holden	136	Brooke	32
Gay	120		

Those elected were, therefore, Sir William Fergusson; John Simon, Esq., F.R.S.; Dr. G. M. Humphry, F.R.S.; and Luther Holden, Esq. From an analysis of the votes, we find the following results. The quadruple votes were 196; among which the principal combinations were, Fergusson, Simon, Humphry, and Holden (by far the most numerous); Partridge, Fergusson, Humphry, and Holden; Partridge, Fergusson, Wilson, and Gay; and Fergusson, Wilson, Simon, and Humphry. Of triple votes there were 47; of which the favourite combinations were, Fergusson, Simon, and Humphry, and Partridge, Fergusson, and Humphry. The double votes were 33; the principal combinations being, Simon and Humphry, Fergusson and Wilson, and Simon and Holden. The plumpers given were 61, of which Mr. Gay had 13, Dr. Humphry 11, and Mr. Simon 10. We may venture to congratulate all the candidates, especially Professor Humphry, on a result in which this JOURNAL, as the organ of the Association, had unquestionably a large share.

MAD DOGS.

WE have reason to expect a good result from the attention which has been given in the general press to our remarks last week on the cruel absurdity of muzzling dogs during the summer, which are allowed to go unmuzzled in the winter, when they are less thirsty, and suffer from rabies in larger proportion. Whose opinion did Sir Richard Mayne take on the subject? Certainly not that of his surgeon-in-chief, which would have gone quite in the opposite direction.

THE FELLOWSHIP OF THE COLLEGE OF PHYSICIANS.

To the list of Members of the College of Physicians selected for the fellowship, which we gave last week, we have only to add the names of Dr. Moxon and Dr. Hughlings Jackson. The remarks which are current as to the junior standing of one or two of these nominees, as compared with others passed over, serve to strengthen the opinion which we lately expressed, that it would be desirable that the Fellows should have a power of suggesting names to the Council, in order to be sure hat eligible and distinguished Members, especially in the provinces, have not been passed over from sheer want of acquaintance with their character and standing.

INFLUENCE OF THE INDIAN CLIMATE ON PHTHISIS.

DR. EWART's Address in Medicine, delivered before the Bengal Branch of the British Medical Association, and of which the first half is reported at length in the *Indian Medical Gazette* of May 1st, 1868, deals with a subject of great interest to European practitioners—that of scrofula and phthisis in India.

"Previously to 1840, phthisis had almost escaped notice in this ountry, owing, among other causes, to the difficulty of obtaining auopsies, the comparative neglect of auscultation, and the liability of the isease to be masked by abdominal affections. It became a recognised octrine, that tuberculous diseases were rarer among the inhabitants of opical and subtropical climates than among those of temperate latitudes; and this was attributed to an idiosyncrasy among the natives of he former; to their open-air life, and the less amount of overcrowding mong them; to the use of a large quantity of vegetables in their diet; o the greater activity of their cutaneous secretions, due to the warmth f the climate; and to a supposed antagonism between tuberculosis and malaria. In 1848, however, the late Dr. Allan Webb called attention o the fact that he had observed phthisis among the inhabitants of the ower Himalayas and of Burdwan; and that it had been noticed by Dr. W. A. Green, at Midnapoor and Howrah, in 1844-45; and by Dr. oodeve, at Cawnpoor, in 1845. In 1854, Dr. T. W. Wilson had called attention to the frequency of 'tubercular disease in the East', in the *Indian Annals of Medical Science*. From 1857 to 1867, the records of the Medical College Hospital showed that 454 Hindus and Mussulmans and 351 Christians had been admitted for phthisis; and that, of these cases, 285 and 139 respectively had died. From 1860 to 1867, 729 cases of phthisis had been treated as out-door patients at the same hospital."

Dr. Ewart then proceeded to review the specimens of tubercular disease contained in the College Museum, giving details of sixty preparations which illustrated his views; and summed up his experience on this subject in the following important propositions.

"1. Phthisis occurs among all classes in India—imported Europeans, Hindus, Mussulmans, Jews, Armenians, Eurasians, East Indians, and others of mixed parentage. 2. Fully developed phthisis, causing death by disorganisation of the lungs and of the intestinal glands, is rarer in India than in Europe. 3. Scrofula, without tubercles in the lungs or elsewhere, but causing fatal diarrhœa or dysentery, is much more frequent than is supposed in India, both among natives and Europeans, and much more common there than in Europe. 4. Tubercular disease of Peyer's patches, or of the solitary glands of the large intestine, causing ulceration and death by asthenia, without any sign of deposit of tubercle in the lungs, is often met with in India. 5. Many scrofulous Europeans and natives die in India from bowel-complaints caused by the tubercular diathesis, after tubercle has been developed in the lungs, but before acute phthisical symptoms have appeared. 6. Tubercles are often found in the lungs of natives who have died from cholera, fever, hepatic abscess, dysentery, or diarrhœa. 7. The advantage of sending Europeans with an inherited phthisical diathesis to India, or to any depressing and relaxing malarious climate, is very problematical. 8. The benefits hitherto believed to have been conferred on natives of Great Britain and other temperate climates, in whose lungs tubercle has already been deposited, by transfer to the plains of India, are not supported by modern experience on the spot. 9. Where disorganisation has already begun in the lungs, even to a small extent, the change from temperate climates to India is positively and obviously injurious."

THE MUSEUM OF THE COLLEGE OF SURGEONS.

MR. FLOWER, the present conservator, has introduced the excellent custom of annually displaying and cataloguing, on the day of the annual election of Councillors, when a large number of Fellows visit the College, the year's acquisitions for the Museum. In the pathological collection, although not including this year any such extraordinary increase as the addition of the Toynbee collection illustrative of diseases of the ear, added last year, the specimens displayed by Mr. Flower are considerably above the average. The principal additions are an anatomical collection of Mr. Mackmurdo, including a number of remarkable skulls, and preparations sent in by Mr. Heath with his prize essay on the Injuries and Diseases of the Jaw. There are also some remarkable preparations contributed by Sir W. Fergusson, Mr. Spencer Wells, Mr. Hilton, and others. The additions in comparative anatomy, including the great sperm-whale, the great armadillo of Surinam, the solitaire of the island of Rodriguez, and the Chinese white dolphin, with beautiful physiological preparations by Dr. Pettigrew, are of the highest interest. We shall next week give a full account of these interesting collections.

THE PRESIDENCY OF THE MEDICAL COUNCIL.

THE approaching termination of Dr. Burrows's term of office as President of the Medical Council is a fertile theme for discussion. He has intimated that he will not be willing to be nominated a second time. The office is one of much dignity and importance, but of great labour and responsibility, and in many respects peculiarly thankless. Dr. Burrows has filled it with great discretion and firmness, and with a careful attention to the duties of the office. Political crises have interfered with the complete fruition of his labours in the Medical Acts Amendment Bill. In selecting his successor, it is, of course, open to the Council to elect a President outside their body, as they did in the case of Brodie and of Green. If Sir Thomas Watson were willing to accept the post, there would, we believe, be a strong and general feeling in favour of that course. There is even in some minds a tendency to recall the advantages of electing a political President, who should have weight in the councils of the nation, and an authoritative position with cabinet ministers—a person of political influence, and occupying positions such as Mr. Bruce or Mr. Lowe, who have in Parliament, and as Vice-Presidents of the Privy Council, represented the interests of public health and of education. Such a person could not be kept in the antechambers of departments, as ministers are now somewhat disposed to keep the Medical Council; and he would be a powerful link between the Council and the Government and Legislature, with which it has frequent, but at present not satisfactory, relations. There are, however, obvious disadvantages in going out of our own profession, for a head to the Council. Within the Council, more than one name is mentioned. We shall venture to refer to one which would, we think, be especially popular both in and out of it—Dr. Acland of Oxford.

MEDICAL INSPECTORS IN IRELAND.

LORD MAYO, Chief Secretary for Ireland, has brought in a Bill to confer on the Poor-law inspectors the powers now invested in the medical inspectors under the Sanitary Act. The qualifications of the former gentlemen for undertaking hygienic investigations may be fairly questioned. The towns under corporations and commissioners will not come under their surveillance, and it is in them that sanitary measures are most neglected. Lord Mayo has also promised to introduce the principles of the Local Government Act, and of the Scotch Town Improvement Act, into Irish legislation; but surely the time has come when such measures should be codified and assimilated for the United Kingdom.

COLLEGE FOR THE BLIND.

WE understand that a college is in course of formation at Worcester for the thorough education of blind daughters of gentlemen on a foundation similar to that of the College for Blind Sons of Gentlemen now in active and successful operation there. This excellent project commands our warmest sympathy; such a school is greatly needed, and we have little doubt that it will prove a success. Medical men are frequently consulted as to the education of the blind when young, and many may be glad to make a note of the existence of these schools.

SANITARY REGULATIONS FOR WORKSHOPS AND WORKPLACES.

A GOOD deal of interest has been excited by the notices which have appeared in our columns as to the different views taken by medical officers of health concerning the best mode of carrying out the Workshops' Regulation Act 1867 and the Sanitary Act 1866. The vestry of Islington have issued the following in a small poster, signed by Dr. Ballard, the Health Officer, and the Vestry Clerk.

"The following are among the more important requirements of the above Acts, which are applicable to workplaces not under the operation of the Factory Acts. It is the duty of the vestry to see that they are observed in this parish. 1. Workrooms and workplaces must be kept in a cleanly condition. 2. They must be well and effectually ventilated, so as not to endanger the health of the persons employed therein. [The Medical Officer of Health will regard any workroom as not sufficiently ventilated in which an unpleasant or animal odour is perceptible, or in which the temperature is found materially to exceed that of the external air in the warmer months, or 60 degrees in the colder months of the year.] 3. No overcrowding of workrooms is permitted—that is to say, the number of persons working in any room must not be so great as to endanger their health. [The Medical Officer of Health will regard any workroom to be overcrowded, in which, for the number of persons employed therein, a sufficient ventilation as above described cannot be constantly maintained without exposure of the workpeople to dangerous draughts; also, any room in which a floor-space of at least 36 superficial feet cannot be allotted to each person, or in which the cubical space of the room is such as that at least 300 cubical feet of air are not allowed for each person.—Here a brief explanation is given of the mode of ascertaining the dimensions, superficial and cubical, of a room.] An infringement of any of the above three regulations will render the master or mistress liable to prosecution under the 19th Section of the Sanitary Act 1866, and the Nuisances Removal Act."

REPORT
ON
THE METROPOLITAN HOSPITALS.

THE great voluntary hospitals of this country have always been considered to be the just objects of national pride. Like other institutions, however, there is reason to believe that they are not always free from abuses and from errors. In no unfriendly spirit, then, to any one institution, and with the desire to render a public service, we have undertaken the task of examining somewhat critically the administration, finances, and charitable operations of some of the London hospitals. We have already had occasion to point out some striking anomalies in expenditure and management; and perhaps a more searching inquiry may help to clear up the sources of disparity, and to remove existing difficulties. We are fully conscious of the great delicacy and responsibility of such a task, and shall endeavour to perform it with fidelity and care. The various communications which have been addressed to us during the last year concerning the Royal Free Hospital have induced us to turn attention first to that hospital.

THE ROYAL FREE HOSPITAL,
GRAY'S INN ROAD.

It is difficult to visit this hospital without being struck by the poverty and bareness of the general appearance of the hospital, the confused and unsatisfactory nature of the internal arrangements, and some striking peculiarities in its general management. After going a little below the surface, we found, at the outset, that dissatisfaction was felt by some of the governors, and this to such an extent, that two Subcommittees had been appointed—one in February 1867, and another in the spring of this year—to investigate the state of the hospital. The application for copies of the Report of subcommittee was met with refusal. We have, however, been furnished with a copy from a private source; and regret to find that the numerous and important recommendations of these Subcommittees have, with one or two exceptions, not been adopted; the most notable exception being one from the first Committee, which involved a considerable outlay in the creation of an anomalous paid office, which office the second Committee has ineffectually proposed to abolish.

The hospital, which is of plain exterior, is built in the form of a hollow square, the enclosed piece of ground forming a common airing-ground for patients, who take the air in company. The staircase leading to the wards and out-patient rooms reopen out into the quadrangle. The north side contains wards; the east, wards, operating-room, and old medical school; the south side, the out-patient department; and the west side, the dispensary, the boardroom, secretaries' department, and house-surgeons' rooms. Underground lie the kitchen, steward's and matron's departments.

The Royal Free Hospital was founded in 1828, by the late W. Marsden, M.D., in Greville Street, Hatton Garden. The object which Dr. Marsden had in view is stated in the Annual Report to have been to found a "medical charity in which *destitution and disease* should alone be the passport for obtaining *free and instant relief*." "On this principle," continues the Report, "the Free Hospital was established." On the title-page, these principles are more fully enlarged upon, in the following terms.

"*In-door Patients.*—Foreigners, strangers, and others, in sickness or disease, having neither friends nor homes, are admitted to the wards of this hospital on their own application, so far as the means of the charity will permit.

"*Out-door Patients.*—All sick and diseased persons, having no other means of obtaining relief, may attend at this hospital every day at two o'clock, when they will receive medical and surgical advice and medicine free."

As we proceed, we shall have occasion to observe in how far these principles have been carried out. The hospital has received a large amount of royal support—the patronage of George the Fourth and King William, and, lastly, of Her Majesty Queen Victoria, who commanded that it should be called the Royal Free Hospital.

For some time a Medical School was attached to the hospital; which, however, has been closed for a considerable time past.

On entering the hospital, the visitor finds himself in a sort of archway, profusely ornamented by huge black boards, most of them setting forth in large type the names and—*proh pudor!*—addresses of the members of the medical and surgical staff. Do these gentlemen, or any of them, see "all sick and diseased persons", etc., for whom, says the Report, the hospital was founded, at their own homes? or, if not, why allow themselves to be advertised after this fashion? The addresses of several are on the prescription-papers also, a thing much to be condemned in public hospitals. They were, in the first instance, so placed, we believe, under circumstances over which the majority of the staff had no control; since this subject was last noticed in the JOURNAL, however, Dr. Cockle, Mr. Gant, and Mr. Hill, have caused their private addresses to be removed from the prescription-papers. Among the names and addresses displayed on the board are those of two gentlemen, Dr. Hassall and Mr. T. H. Wakley. They are entered in the Report respectively as the Senior Physician and Surgeon to the hospital. On inquiry, we were informed they had no beds, saw no patients, and have been for some time strangers to the wards. On looking over the Annual Report for 1868, we find that the thanks of the governors are eminently due to these two gentlemen—so they may perhaps render services which escape the eye.

On another black board, might be observed an order, signed "A. Marsden, General Superintendent", whose name occurs on the board opposite as fourth on the list of Visiting Surgeons. A placard signed in like manner by this gentleman informs the world that "no more patients can be admitted for the present, all the beds being occupied." It bears date April 18.

The Royal Free Hospital is distinguished, as the public are informed by constant paragraphs in the daily papers, by the extraordinary number of out-patients to whom it administers gratuitous medical relief. The out-patient rooms, which, we may observe, exhibit the bareness and neglect common throughout the building, are thronged by patients. The result of personal observation and investigation also soon convinced us that a large proportion of them are neither destitute nor without other means of obtaining relief. Many were in respectable and lucrative positions, some were very well dressed and had handsome ornaments; and we heard, on good authority, of a patient so "destitute and diseased" as to require to be brought to the hospital frequently in her own brougham. This peculiar case has, we believe, been brought under the notice of the Committee. It is part of a system which imposes no check, and looks only on the surface, the effect is to relieve numbers after a fashion rather than to exercise a wise discrimination in charity. The out-patient system of the Royal Free Hospital, as at present administered, is, in our opinion, fraught with great harm, which might with ordinary care be prevented. The patients are here, as in many other out-patient departments, far too numerous. They get each an average of from twenty to thirty seconds of attention.

And now as to their number, of which statistical details are regularly published. On turning to the last Annual Report of the hospital, we find it stated that 68,114 patients were relieved during the year 1867, or almost 187 new patients *per diem* including Sundays. On asking for the books, however, to verify these figures, we find that the names of the ordinary out-patients are not entered at all. They are not even individually counted or registered. The system we found to be this: one patient in every three, or an approximation to it, is ticked off as a new patient. Sometimes the ticks are put pretty regularly; sometimes a good rough guess is made; and the whole system of returns is, we have reason to believe, far from being reliable.

Great irregularity prevails in the attendance of many of the medical officers. In frequent visits which we have made, we have never found the full number of the staff remain at their posts, when the rules of the hospital required them to be there. The gentleman who is salaried as general superintendent appears to be the greatest sinner of all in this respect. On the day of our last visit, only one physician, but no surgeon, turned up to attend to the patients. It is just to state that Dr. O'Connor, Dr. Rickards, and Mr. Hill, the two latter very recently appointed, appear to attend with regularity. And with respect to others of the medical officers, it must be remembered that they may have given many years of service in the hospital, and that the seeing so large a number of out-patients is an onerous duty, beyond what the governors can reasonably expect of men of long standing in the profession.

The bad effects which are sure to follow in circumstances such as we have described are apparent to all, and need no comment from us.

The dispensary is very small and cramped; so much so, that there is no room for making infusions and other daily preparations usually made at hospitals, but here purchased for use. There are as many as three dispensers employed here, and the drugs are obtained on a very costly plan, without estimates or check upon the prices. They are not submitted to any drug or medical committee. The administration of the dispensary, is, indeed, both extravagant and ill-devised. The chief dispenser is an elderly gentleman at a handsome salary, in whose duties "looking on" appears to be a large item. In his opinion he is an optimist.

We shall refer presently to the financial details.

Passing on to the wards, we cannot but be struck with the bare, miserable, poverty-stricken aspect which they present; their cheerless rough brick walls (coloured with limewash), the raggedness of the bed-linen, and the meagre broken ward furniture. While we learn that the average income of the hospital is £8000 a-year, and that there are but 85 beds filled; while other London hospitals sustain handsomely nearly twice as many beds with a much smaller income; it is impossible not to feel that public inquiry comes none too late here to look after the expenditure of publicly subscribed funds; and that, with the best intentions, the managers have not succeeded so well as might be wished in their administration of this charity.

[*To be continued.*]

MEDICAL REMUNERATION: TARIFFS OF FEES.

AT the annual meeting of the Cambridge and Huntingdon Branch, which was held on June 26th at Yarmouth in conjunction with the East Anglian Branch, the following resolution was adopted, being proposed by Mr. Stear of Saffron Walden, and seconded by the President, Dr. Vores—"That, in the opinion of this meeting, it is expedient that a Committee should be appointed in Section E at the annual meeting at Oxford, to draw up a recommendatory tariff of medical fees and of club remuneration." Mr. Stear was requested to bring the subject forward at the Oxford Meeting. As he is collecting information, he will be glad to receive a copy of any tariff of fees, or any communication bearing on the subject. He has copies of the Manchester and Sydenham tariffs.

REMUNERATION OF MEDICAL OFFICERS OF CLUBS.

Adoption in Worcestershire of the Resolutions of the Birmingham and Midland Counties Branch of the British Medical Association.

SOME time ago, we noticed the report of the annual meeting of the Worcestershire Medical Society, a very flourishing society, embracing most of the medical practitioners in that city and the surrounding towns. That report stated that the Committee appointed to obtain information respecting the remuneration made to their medical officers by clubs had recommended the adoption of the first two clauses by the Birmingham and Midland Counties, and subsequently by other Branches of the British Medical Association. With a view to obtain the adhesion of the whole profession within working distance, the Committee issued a circular to every medical practitioner residing within a radius of sixteen miles from the city of Worcester, asking him to join the movement. We hear that the appeal has been most successful; and that, with one or two exceptions, every medical man practising in the city and the surrounding towns of Malvern, Evesham, Pershore, Droitwich, Stourport, Bewdley, and Ledbury, have signed a declaration not to accept less than *five* shillings per head for any future club engagement; and a vigorous effort is about to be made to raise the pay of present engagements to that figure. The Committee of the Medical Society of Worcestershire deserve credit for their energy, which, we trust, will soon meet with the success it deserves.

THE GENERAL MEDICAL COUNCIL ON EDUCATION AND REGISTRATION.

SESSION 1868.

WEDNESDAY, JUNE 24TH, 1868.

THE PRESIDENT, Dr. BURROWS, took the chair at 2 P.M. The members present were: Dr. Risdon Bennett, Mr. Cæsar Hawkins, Mr. G. Cooper, Dr. Acland, Dr. Paget, Dr. Embleton, Dr. Storrar, Dr. Alex. Wood, Dr. Andrew Wood, Dr. J. G. Fleming, Mr. Syme, Dr. Allen Thomson, Dr. Aquilla Smith, Mr. Hargrave, Dr. Leet, Dr. Apjohn, Sir D. Corrigan, Bart., Dr. Sharpey, Dr. Parkes, Dr. Quain, and Dr. Rumsey; and Dr. F. Hawkins, Registrar. Dr. Stokes was unable to be present till the meeting on Thursday; and the President stated that he had received a letter from Dr. Christison, stating that he would be unable to attend the session of the Council at least for several days.

In taking the chair, the PRESIDENT addressed the Council, explaining the manner in which his communications with the government had been interrupted by the state of public business, and the course which he had pursued with regard to the Act which had been passed to amend the law relating to Medical Practitioners in the Colonies. An outline of his remarks was given in last week's JOURNAL.

Committees.—The following committees were appointed. *Business Committee:* Dr. Andrew Wood, *Chairman;* Dr. Embleton, Dr. A. Smith, Mr. C. Hawkins, Dr. Rumsey. *Finance Committee:* Dr. Sharpey, *Chairman;* Dr. Quain, Dr. A. Smith, Dr. Fleming, Mr. Cooper.

Deputation from the Committee of Council of the British Medical Association.—A letter was read from the General Secretary of the British Medical Association, soliciting an interview for a deputation, in reference to the further representation of the profession in the Council.

Dr. PAGET proposed, Sir D. CORRIGAN seconded, and it was unanimously resolved—"That the request of the Committee of Council of the British Medical Association be acceded to, and that the deputation appointed by them be received by the Medical Council on Tuesday, June 30th, at 3 P.M."

Lunacy Certificates.—A communication from the Branch Council for Scotland was read, calling attention to the fact that lunacy certificates given in England were not legally available in Scotland, and *vice versâ.*

It was proposed by Dr. ANDREW WOOD, seconded by Dr. ALEXANDER WOOD, and carried—

"That the reference from the Scottish Branch Council on the subject of Lunacy Certificates be referred to a committee, who shall consider the subject, in concert with Mr. Ouvry, and report to the Council."

The committee was appointed to consist of Dr. Andrew Wood, *Chairman;* Sir D. Corrigan, and Dr. Rumsey.

Vaccination.—The REGISTRAR read a statement of information collected by the Executive Committee on the subject of Vaccination.

Mr. CÆSAR HAWKINS moved, Dr. PAGET seconded, and it was resolved—"That the letter from the Medical Department of the Privy Council of November 23rd, 1867 (see *Minutes*, vol. v, pp. 280, 302, 344), together with the letters from the various licensing bodies connected with the subject of vaccination, be referred to a committee, to draw up for the approval of the General Council an answer to the Privy Council."

The committee was appointed to consist of Mr. Cæsar Hawkins, *Chairman;* Dr. Fleming; Dr. Leet; Dr. Storrar; and Dr. Bennett. [The hearing of this question, and the substance of the letter, have already been fully made known to our readers.]

Visitation of Examinations.—The Report of the Committee on the Visitation of Examinations, with the Observations of the Licensing Bodies upon the report, together with the Reports of Visitations since the last meeting of the Medical Council, were presented; and, on the proposal of Dr. PAGET, seconded by Dr. PARKES, were ordered to be received and entered on the minutes.

Dr. PAGET moved, and Dr. QUAIN seconded—"That a committee be appointed to consider the observations and the reports of visitations of examinations, referred to in the two last resolutions, and to report thereon to the Council." Some discussion took place, in the course of which Dr. ALEXANDER WOOD objected that the report of last year was pervaded by the influence of "a master mind", and that certain members of the Council had had unfair advantages of making explanations. Dr. ANDREW WOOD, Dr. PAGET, and Dr. SHARPEY, replied to this statement. The motion was then carried: and the committee was appointed to consist of Dr. Paget, *Chairman;* Dr. Andrew Wood; Mr. Hawkins; Dr. Storrar; Dr. Thomson; Dr. Leet; Dr. Apjohn; Dr. Sharpey; Dr. Parkes; and Mr. Syme.

Army and Naval Medical Returns.—These returns were presented: and, on the motion of Dr. PARKES, seconded by Dr. STORRAR, were ordered to be entered on the minutes. Accompanying the return of the Medical Department of the Navy, was a letter to the Director-General, Dr. Bryson, from Dr. Jas. Salmon, Dr. Wm. R. E. Smart, Dr. Alex. E. Mackay, and Dr. John D. Macdonald, stating that, during the year 1867, thirty-five candidates presented themselves for examination for medical commissions in the navy; but that of these, three, who were rejected on their first examination, presented themselves a second time, so that thirty-eight examinations altogether were held. In twenty-seven instances the answers given were of a more or less satisfactory character, and the candidates were admitted; in ten, they were unsatisfactory, and they were rejected; and one candidate was found to be physically unfit for the service. In three of the twenty-seven successful examinations, the answers were very good in all branches; in thirteen, good; in nine, fair only; and in two, indifferent. Two candidates who passed good examinations, and one a fair examination, had been previously rejected during the year; and one who passed a very good examination in all branches, and one a fair examination, had been rejected during the preceding year. In consequence of the preliminary examinations now instituted by all licensing bodies, in accordance with the recommendation of the General Medical Council, their Lordships were pleased to direct that, in future, the examination in Latin by candidates for naval medical commissions should not be compulsory. This regulation came into force on the 7th of May, 1867. They are of opinion that the examinations on the professional subjects have not evinced any marked superiority over those of the preceding year; and we find in the candidates an increasing disinclination to be examined in Latin, and that few of them possess a useful knowledge of that language.

Graduates of Colonial Universities.—Communications from the Colonial Office, Home Office, and Chancellor of the University of Melbourne, relative to the admission of colonial graduates to registrations in England, were read, and, on the proposal of Mr. SYME, seconded by Dr. RUMSEY, were ordered to be entered on the minutes, and taken into consideration on the 26th.

Medical Education.—Mr. SYME moved—"That a Committee be appointed to consider and report how the various subjects of Medical Education which have been deemed requisite by the Council may be taught with most advantage; in what order they should be studied; and how the examinations on them ought to be arranged." He said that the only apology which he could offer for undertaking so serious a responsibility as that of the bringing the subject forward, was his long experience as a teacher. Three duties had been laid on the Council, viz.: to keep a *Register;* to construct a *Pharmacopœia;* and to regulate Medical Education and prevent anyone from being admitted to the profession without due examination. The first two of these duties had been discharged, he believed in a satisfactory manner. As to the third, much had been done; and no one could doubt the difference between the present state of medical education and that which existed ten years ago, so far as the Medical Council was concerned. It might appear that the Council had nearly completed its duties with regard to a system of professional education. There were, however, several points left, such as the mode of teaching; the order in which the subjects of medical education were taught; and the best method of conducting the examinations. He would first comment on the mode in which teaching was conducted. A man was no more made to learn by mere enunciation of opinions than the body was nourished by filling the stomach with food. Teachers, however, were apt to merely pour forth their learning, without taking sufficient care that it was understood. Mr. Syme thought that the duty of the teacher was to show the student an outline of what he ought to learn, and to remove the difficulties in the way of his exercising his mental powers. Dr. Parkes considered that the student should proceed from particulars to generals; and that the tutorial system was the best. But he differed from Dr. Parkes on this, unless cramming were the object in view. He would take care that students should have so much scientific education as was necessary to make them good practitioners. As much scientific matter should be imparted as would bear the same relation as the germinating seed to the growing plant. With regard to teaching, he would observe that most of the medical teaching in this country was not conducted by competent men, who made their subjects the main business of their lives, but as a step to something better. In Scotland, there were no provincial schools; and when a lecturer was appointed he did not think of something better, but made his teachership the business of his life. Mr. Syme then went on to speak of the evil arising from the large number of schools. It was not possible to teach small numbers of pupils efficiently. The Council ought to take the opinions of men experienced in teaching, as to the proper amount of instruction that should be given. He protested against the number of examinations in some of the licensing boards; they were injurious, inasmuch as they required the student, while attending lectures on one kind of subject, to be preparing himself for examination in another.

Dr. ANDREW WOOD seconded the motion. When there was disagreement of opinion between such men as Mr. Syme and Dr. Parkes, it was time for the Council to take up the matter. This difference of opinion did not exist only in the Council, but in the profession outside. It had been suggested that the Council should wait for action on the part of the Medical Teachers' Association. The Council, he held, should take the initiative, and obtain evidence not only from the Medical Teachers' Association, but from all medical teachers in the country. The time had come for taking up the subject, and preparing a report which should be creditable to the Council, and, after discussion, be the means of producing a sound code of regulations on medical education.

Sir DOMINIC CORRIGAN proposed as an amendment—"That a Committee be appointed to consider and report in what order the various subjects of medical education which have been deemed requisite by the Council may be taught with most advantage, and how the examinations on them ought to be arranged." He objected to any interference on the part of the Council with the mode of tuition, holding that the examinations by the licensing boards should be the test of efficient instruction.

Dr. STORRAR seconded the amendment.

On the motion of Dr. PARKES, the debate was adjourned at six o'clock.

THURSDAY, JUNE 25TH.

Dr. BURROWS, President, took the chair at 2 P.M.

Medical Education.—Dr. PARKES said that Mr. Syme had made very pointed allusion to him. He had published his pamphlet, because he had for a long time paid much attention to medical education, and was desirous of doing something towards settling the subject. Moreover, the matter had been brought forward on several occasions by very eminent members, and yet had been turned from with a strange reluctance. The consideration of the matter was passing out of the hands of the Council, and would be taken up by others if the Council allowed it to drop. He had meant to say in his pamphlet that a student should be so taught as to be led to see with his own eyes and judge with his own brain. At present, however, one fact and another were placed before students, without regard to their connection. Students came before their teachers quite ignorant of science, and then mental food should be given them in a digestible and easily assimilable form. Mr. Syme objected to teaching from particulars to generals. How did Mr. Syme teach, who was one of our best teachers of surgery? He brought forward patient after patient; and, after demonstrating all the particulars to the students, summed up in a few general conclusions. A student must learn from particulars to generals, in the same way as a child learns its language. Sir D. Corrigan proposed to leave out the very pith and marrow of Mr. Syme's proposal—the method of medical tuition. Other bodies had taken up the subject of the mode of teaching; and the Committee would come to a very lame conclusion by confining themselves to Sir D. Corrigan's suggestions. The Committee should last beyond the session, and have the power of taking the evidence of three or four teachers in each department.

Dr. ALLEN THOMSON supported Mr. Syme's proposal. A deliverance on the subjects there named was looked for by the public and the profession; and the consideration of the proper mode of teaching was a very important duty of the Council.

Mr. HARGRAVE would support Mr. Syme's proposal.

Dr. SHARPEY and Dr. AQUILLA SMITH would vote with Mr. Syme, if it were understood that the Committee was to be permanent.

[The debate was now—3 P.M.—suspended, as special business had been fixed for that hour].

Removal of a name from the Register.—On the investigation of charges against Dr. William Macdonald, of Glasgow, being entered on,

Mr. HARGRAVE moved, and Dr. RUMSEY seconded—"That the reporters be requested to retire from the council chamber."

After discussion, the proposal was negatived—three members only voting for it.

Mr. OUVRY, the Solicitor to the Council, read the summons which had been served on Dr. William Macdonald, of 359, Argyle Street, Glasgow, inviting and requesting him to be present at an investigation of a statement submitted to the Council, purporting to show that he had been guilty of infamous conduct in a professional respect:—"First. In offering to procure for fee or reward, the Degree of Doctor of Medicine from Pennsylvania College.—Second. In offering to procure for fee or reward the Degree of Doctor of Medicine from the University of Giessen.—Third. In falsely pretending to hold a Commission from the said University of Giessen, for inviting young persons, aspirants for the Degree of Doctor of Medicine, to Giessen."—Dr. Macdonald having failed to appear before the Council, Mr. Ouvry read at full length the evidence in support of the charges, and also the answers to them which Dr. Macdonald had addressed to the Council as his defence.

Mr. SYME moved, and Dr. FLEMING seconded—"That William Macdonald, of Ewing Place, 359, Argyle Street, Glasgow, M.D., Univ. Edin., 1830, Fell. Fac. Phys. Surg., Glasg., 1832, is judged by this Council after due inquiry to have been guilty of infamous conduct in a professional respect."

Sir D. CORRIGAN proposed as an amendment, and Dr. APJOHN seconded—"That the General Medical Council, however disapproving of Dr. Macdonald's conduct, is of opinion that the case before them is one in which it is the province of the Universities, which deny that Dr. Macdonald was authorised to act for them, to proceed against him, should they see fit, and not for the judgment or intervention of this Council."

After a long discussion, the amendment was negatived: 8 voting for, and 9 against it. The original motion was then carried by a majority of 10 to 9.

Mr. SYME then moved, Dr. FLEMING seconded, and it was agreed—"That William Macdonald, M.D., having been judged by this General Council, after due inquiry, to have been guilty of infamous conduct in a professional respect, the General Council do hereby adjudge that the name of the said William Macdonald be erased from the *Register;* and do by this order direct the Registrar to erase his name from the *Register* accordingly."—"That a copy of these Orders, signed by the President in the Chair, and countersigned by the Registrar, be transmitted to the said William Macdonald, M.D."

Medical Education.—The debate on this subject was resumed.

Dr. STORRAR doubted whether the mode of imparting medical instruction was a matter for a committee, or even for the Council. He did not think that even very strict rules as to the order of study should be laid down.

Dr. ACLAND would support Mr. Syme's proposal. What seemed to be wanted was the course which he proposed four years ago: that all the teachers in the Council should form a committee to report to the next session. He did not regret the delay which had taken place, as the Council was now in a better position for considering the matter. He was repeatedly asked in the University of Oxford what was the opinion of the Council on this and that point: such as whether chemistry or botany should be taught first. The University wanted to know the practical conclusion of the Medical Council as to what the student ought to know and must know to fit him for the practice of his profession. The amount of scientific knowledge required should be left to the Universities, except so far as was necessary for practice. They—the Universities—wanted the Council to say what in their opinion ought to be done. It was a system of tyranny to demand attendance on lectures which did not teach what was required.

On the proposal of Dr. BENNETT, the discussion was again adjourned.

FRIDAY, JUNE 26.

The PRESIDENT took the Chair at 2 P.M.

Medical Education.—Dr. RISDON BENNETT urged that it was the duty of the Council to indicate the course of instruction which should be followed. The Council ought not to leave the matter to other bodies, as had been suggested in some quarters.

After a few remarks from Mr. COOPER,

Dr. PAGET asked to be informed clearly whether the Committee was to continue beyond the present session. He was opposed to interference with liberty of teaching. Any attempt to enforce a special mode must fail; and, if enforced, it would only be mischievous. It was not in the power of the Council to determine what system of teaching would be the best under all circumstances. Some confusion had arisen from speaking of the licensing boards as if they were teaching bodies; now the Council had no control over the medical teaching bodies in London. He would ask Mr. Syme whether he would have the recommendations enforced, or regarded only on the suggestions of the Council; also, whether they should be of sufficient latitude to allow a great field of action to the teaching bodies.

Mr. C. HAWKINS was inclined to support the amendment.

Dr. EMBLETON hoped that the report would be full, and that it would be delivered in time for circulation among the members of Council before next session.

Dr. STOKES agreed with the remarks made as to the mischief of the coercive system of certificates of attendance on lectures; which he had years ago pointed out to be defective and demoralising. He was of opinion, however, that some order of study might be indicated by the Council, but not enforced. It might be a question whether coercion ought not to be exercised in regard to certain matters—such as those which could only be taught by demonstration. The attendance on these should be coercive; because, from the absence and the expense of apparatus, students could not educate themselves in these points. Mr. Syme had spoken of the tutorial system of education as the worst. It was a great mistake to confound the tutorial system with cramming; they were essentially different. The grinder sought merely to fill the student's mind with a certain quantity of facts, so as to enable him to pass an examination. The tutorial system did not merely teach him what was necessary for a particular end, but sought to show him how he might teach himself; it did not merely indicate what was enough for a respectable mediocrity, but pointed out to the student the course which he should follow in order to gain the highest position. In the institution with which he was connected, each student of two years' standing was allotted a certain number of cases, and was made responsible for the reports, for the care of the patients, and for visiting them. Two or three times a week the class was called together, and the students were in turn called on to give their opinion as to the diagnosis of their cases, the grounds for the same, the value of symptoms, etc. In this way the student was made familiar with natural objects; and from particular phenomena he was taught general principles.

After some remarks from Dr. QUAIN and Dr. FLEMING,

Mr. SYME said that nothing was farther from his intention than to have anything like coercion, or to neglect differences of opinion. The subject was of too extensive a nature to be decided in a few days; and he would propose that the report be brought up next year.

The amendment was put to the vote and lost; the votes being—for, 7; against, 13. Mr. Syme's motion was then carried.

The Committee was then nominated to consist of Mr. Syme, *Chairman;* the President; Mr. Cæsar Hawkins; Dr. Acland; Dr. Andrew Wood; Dr. Thomson; Dr. A. Smith; Mr. Hargrave; Dr. Apjohn; Dr. Sharpey; Dr. Parkes; Dr. Christison; and Dr. Stokes.

The Registration of Colonial Graduates.—The REGISTRAR read letters which had been received from the Colonial Office, the Home Office, and the Chancellor of the University of Melbourne, relative to the registration of graduates of that institution. The Chancellor, Sir Redmond Barry, referring to the report that a year's residence in England would be probably required before colonial graduates seeking to practise here could apply to be registered, asked that compulsory residence in England should not be insisted on before registration by any of the medical graduates who may arrive in the United Kingdom furnished with certificates or other testimony from the governor, the chief-justice, or other persons in public positions. The letter addressed by the President to the Home Office, in February last, on the subject of the privileges of registered practitioners who sought to practise in the colonies, was now read.

Sir DOMINIC CORRIGAN moved, and Dr. ANDREW WOOD seconded—"That the General Medical Council see no objection to the introduction of a clause in any amended medical act that may be introduced, providing that graduates in medicine of the University of Melbourne, shall be entitled to register as medical practitioners in the United Kingdom on the production of the necessary proof of their having graduated in medicine in the University of Melbourne, and paying the fees payable on registration in the United Kingdom."

Dr. SHARPEY moved as an amendment, and Mr. SYME seconded—"That in any provision which may be introduced into an amended medical act, for admitting to registration persons holding degrees or licences from the University of Melbourne, previous residence in England be not required as a condition of admission to such registration."

After a discussion, in which the claims of the University of Melbourne to favourable consideration were generally recognised, and the necessity of dealing with foreign and colonial universities separately was pointed out, the amendment was put to the vote and carried: 11 voting for and 6 against it. It was then put as a substantive motion; when Mr. CÆSAR HAWKINS moved as a further amendment, and Mr. HARGRAVE seconded—"That in any provision which may be introduced into an amended medical act, by which power would be given to register graduates of the University of Melbourne in the British Register, previous residence be not required as a condition of admission to such registration." This amendment was carried; and on being put as a substantive motion, was also carried.

Dr. SHARPEY proposed, Mr. HAWKINS seconded, and it was resolved—"That the above resolution be communicated to the Secretary of State for the Home Department, in reply to the letter of the Chancellor of the University of Melbourne."

Preliminary Education.—Dr. ALEXANDER WOOD proposed, Dr. EMBLETON seconded, and it was agreed—"That a Committee be appointed to consider the list of bodies whose *testamurs* are considered sufficient evidence of the student having received a competent preliminary education.—That the Committee do also consider and report whether any plan could be devised, by which the Council could better supervise the preliminary examinations, or dispense with the necessity for frequent supervision, or in any other way promote the improvement of the general (preliminary) education of the medical student."—The Committee was appointed to consist of Dr. Alexander Wood, *Chairman;* Dr. Fleming; Dr. Acland; Dr. Embleton; Dr. Rumsey; Dr. Leet; and Dr. Storrar.

SATURDAY, JUNE 27TH.

The PRESIDENT took the chair at 2 P.M.

A memorial from the Clerks of the Council, asking for an increase of salary, was referred to the Finance Committee.

On the proposal of Dr. ANDREW WOOD, seconded by Sir D. CORRIGAN, it was resolved that the Council should merely meet *pro formâ* at 2 o'clock on Monday, and occupy the day in committee business, so that time might be allowed for preparing reports.

Visitation of Examinations.—The following passage from the Minutes of the Branch Council for England for June 5th, 1868, was read: "*Read*—From a Report adopted by the General Council on the 7th of June, 1867: That each Branch Council should consider how far it is necessary to visit annually the examinations of each licensing body, and whether the labour and expense of conducting these visitations might not be abridged, by limiting the visitations of each year to the examinations of certain bodies only. *Resolved*—1. That this Branch Council is of opinion that in future the labour and expense of visiting the examinations may safely be abridged, by limitating the visitations of each year to the examinations of certain bodies only. 2. That this Branch Council, considering that the examinations of the several English licensing bodies have been visited and fully reported on during two successive years, and that important changes are still in progress in several of these bodies, has not thought it necessary to repeat the visitations since the last meeting of the General Council."

State Medicine.—The following memorial from the State Medicine Committee of the British Medical Association was read:—

"*To the President and Members of the General Council of Medical Education and Registration.*

"The Memorial of the Committee on State Medicine of the British Medical Association humbly sheweth,—That, whereas there is at the present time no sufficient guarantee for the general competency, or the special qualifications of medical men appointed as Medical Officers of Health, and employed as Medical Jurists; no recognised plan for conducting their education; nor any examining body for regulating the standard, and testing the sufficiency of their acquirements; the members of this Committee earnestly urge upon the General Medical Council to consider, at their next meeting, the special qualifications required for such Medical Officers of Health, and the mode in which they should be trained and licensed for the discharge of their varied and important duties. Signed, in name and by appointment of the Committee,

A. T. H. WATERS, *Chairman.*
April 23rd, 1868. A. P. STEWART, *Secretary.*"

On the motion of Sir DOMINIC CORRIGAN, seconded by Dr. PAGET, the memorial was ordered to be received and entered on the minutes.

Dr. ACLAND proposed the following resolution:—"That a Committee be appointed to report on the steps proper to be taken, if any, for granting diplomas or certificates of proficiency in state medicine, and for recording the same in the *Medical Register*, due regard being had to the interests of existing health officers in the several parts of the kingdom." He said that the subject was a very serious one, and touched on some of the most important matters with which the medical profession had to deal. Twenty-five years ago the department of state medicine scarcely existed; but now it had become a very important branch of special knowledge. As a matter of fact, what took place was, that, because a man's name was in the *Medical Register*, he was therefore supposed to possess all the special knowledge requisite in state medicine. This idea was wrong; a man might be a very good officer of health, and yet might not possess the knowledge requisite to enable him to judge of such matters as the construction of hospitals. He (Dr. Acland) had had questions of all kinds, bearing on engineering matters, put to him merely because he was a physician, and because the questions all lay within the department of sanitary science. It happened sometimes that questions on sanitary matters were answered by medical men who did not possess engineering skill; or by engineers who had no medical knowledge. With regard to men engaged in ordinary medical practice, not only were they not of necessity competent for the performance of the duties of state medicine, but it was cruel to require it of them. Any definition of the kind of knowledge to be comprised in an education for the duties of state medicine could only be laid down definitely by such a body as the Medical Council; and it should be left perfectly optional to registered practitioners to acquire this knowledge or art. Many persons had for many years devoted much attention to state medicine, and had diminished their professional incomes. At one time medical men who devoted themselves to preventive medicine were said to be meddling with that which did not concern them. But preventive medicine was a high department of the medical art; and it was hard that persons having a knowledge of it should not have special certificates of their fitness. In any changes that might be made, it would be necessary to act with justice towards those who already held appointments. Dr. Acland then gave an outline of the circumstances connected with the presentation of the memorial—the reading of Dr. Rumsey's paper at the Dublin meeting, the formation of a Committee, the deputation to government, etc. He thought the least that could be done was to appoint a Committee to consider the subject. State medicine ought to be made a special department; but whether the knowledge should be forced or optional, or whether a special class of persons skilled in state medicine should be created, was a matter which would have to be decided.

Dr. **STOKES** seconded the motion. It was the custom to look on every registered practitioner as a competent witness in all medico-legal matters. This tended to defeat justice and to bring disgrace on the profession; for, no matter how eminent a medical man might be, this was no proof of his competency to give evidence on this or that matter in a court of law. It was the duty of the Council to take up the subject, and to look to the honour and interests of the medical profession.

After a few remarks from Mr. **HARGRAVE**, the motion was put to the vote and carried.

The Committee was appointed to consist of Dr. Acland, *Chairman;* Dr. Paget, Dr. Thomson, Dr. A. Smith, Dr. Parkes, Dr. Rumsey, Dr. Christison, and Dr. Stokes.

Dr. **BENNETT** moved, Mr. **HAWKINS** seconded, and it was resolved—"That the Committee send in their report, so soon as it may be ready, to the Executive Committee, and that the Executive Committee have power to print and circulate the report among the members of Council prior to their next session."

Secondary Education in Schools.—Dr. **STORRAR** moved—"That, having regard to the importance of improving the general education of persons entering on the study of medicine, it is incumbent on the General Council to petition both Houses of Parliament, praying for early legislation on the subject of secondary education in schools; that it be referred to the Executive Committee to prepare petitions to the Houses of Lords and Commons; and that the President be authorised to sign and affix the seal of the Council to them, and take measures for their presentation." By "secondary education" was meant that education (including classics, modern languages, etc.) which followed immediately after primary education, comprising reading, writing, and arithmetic. He did not intend to refer to education in colleges. He reviewed the progress of the question of general education in the Medical Council, and adverted to the opinion of eminent men that a good general education was the proper foundation for professional education. A former President of the Council, Sir Benjamin Brodie, who was a good scholar, advocated that youths who intended entering the medical profession should be kept at school until they were eighteen years of age. The late Mr. Green, another president, held the same views; and he (Dr. Storrar) believed that the present President entertained similar opinions. The Council, in their proceedings with regard to general education, had commenced carefully, but had advanced step by step; and he believed that, if they went on raising the standard and taking care that it was fairly maintained, and if they shut out men who made a mistake in attempting to enter the profession and encouraged them to turn their attention to other honourable callings, the Council would be doing what was desirable. He believed that the Council would then in course of time exert an influence on the schools of the country. There were special reasons for adopting at this time the course which he proposed. An inquiry into public schools had been for three years conducted by a Royal Commission. There were nearly eight hundred endowed grammar schools in the country, with endowments varying from £40,000 to £5 a year, making altogether about £200,000 a year in addition to school property, such as houses, etc. A few of the schools were good; some were indifferent; others were thoroughly bad; and in some instances where endowments existed, there was no school at all. He would suggest that it might be possible for the Council to strengthen the hands of the Government in their dealing with the public schools. The question was not a political or a religious one, but affected all. To show the necessity of amendment, he would refer to the case of members of the medical profession, who were anxious to give their children a good education, but were driven to a choice, unless they sent them to a distance from home, between bad and expensive schools. The Commission had found that in Scotland secondary education was neither in extent nor amount what it ought to be. As to Ireland, he was ignorant; but probably the same want existed there.

Dr. **ALEXANDER WOOD** seconded the proposal. Education was not what it ought to be, even in schools where much might be expected; and there was also a great deal of educational power running to waste. The only question that could give rise to difference of opinion, was whether the Council was called on to interfere. They had repeatedly pointed out the great deficiency in regard to general education; and he thought that they were in duty bound to take part in the question, and to show how they had been bound down by the lower stratum of education. He was able readily to distinguish students who came from Aberdeen by their precision and clearness; and he had found, on inquiry, that in that district there were a number of well-managed endowments, and that consequently education was better attended to there than elsewhere. If all general education were of the same high character as in Aberdeen, the task both of teachers and of students of the medical profession would be much easier.

After some discussion, in which Dr. **BENNETT**, Mr. **HARGRAVE**, Sir D. **CORRIGAN**, Dr. **ANDREW WOOD**, Mr. C. **HAWKINS**, Mr. **COOPER**, and Dr. **STORRAR**, took part, the motion was put to the vote and carried: 9 voting for, and 8 against it.

MONDAY, JUNE 29TH.

The Council met at 2 P.M.; and, having received letters from the Royal College of Surgeons of England, and the King and Queen's College of Physicians in Ireland, ordered them to be entered in the minutes.

The Council then adjourned for the purpose of expediting the business of the numerous committees.

TUESDAY, JUNE 30TH.

The Council met at 2 P.M.: Dr. **BURROWS** in the chair.

Returns from Licensing Bodies.—Dr. **EMBLETON** moved—"That a committee be appointed to consider the returns of examinations from the licensing bodies, and the registration of students." Dr. **PAGET** seconded the motion.

Sir D. **CORRIGAN** said, that only 30 out 235 students of medicine in Trinity College, Dublin, were registered.

Dr. **ANDREW WOOD** and Dr. **ALEXANDER WOOD** considered that the fact mentioned by Sir D. Corrigan called for notice on the part of the committee. Mr. **HARGRAVE**, Dr. **APJOHN**, and Mr. **SYME** also made some remarks; and the motion was carried.

The committee was appointed to consist of Dr. Embleton, *Chairman*; Mr. Hawkins; Dr. Fleming; Dr. Thomson; Dr. A. Smith; Dr. Andrew Wood; Dr. Sharpey.

The following communication from the Medical Teachers' Association was ordered to be referred to the same committee.

"37, Soho Square, June 19th, 1868.

"Sir,—At the last meeting of the Medical Teachers' Association, we were instructed to forward to you, as President of the Medical Council, the enclosed copy of a resolution respecting the Registration of the Metropolitan Students of Medicine, and to request you to bring the subject under the notice of the members of the Medical Council at their next meeting. We are, etc.,

"ROBERT BENTLEY,
"B. E. BRODHURST,
"*Hon. Secretaries to Medical Teachers' Association.*

"*Copy of a Resolution carried unanimously at a General Meeting of the Medical Teachers' Association.*

"That in the opinion of the Association, the Registration of the Metropolitan Students of Medicine should be performed at one office only."

Supply of the Register to Practitioners.—Dr. **PAGET** moved—"That in future every person whose name shall be entered for the first time on the *Medical Register* shall be entitled to receive, on application, a copy of the published *Register* for the year in which his name has been entered."

Dr. **STORRAR** seconded the motion; which, after some remarks from Sir D. **CORRIGAN**, Dr. **SHARPEY**, and Dr. A. **SMITH**, was carried.

The Report of the Pharmacopœia Committee was presented by Dr. **QUAIN**.

Executive Committee.—The Council elected, by ballot, as members of the Executive Committee for the ensuing year, Mr. Hawkins; Dr. Acland; Dr. Paget; Dr. Andrew Wood; Dr. A. Smith; and Dr. Sharpey.

REPRESENTATION OF THE MEDICAL PROFESSION IN THE COUNCIL.

The Council received a deputation on the subject from the Committee of Council of the British Medical Association, consisting of Dr. Sibson, President of the Council of the Association; Dr. E. Waters, Chairman of the Committee for obtaining the Representation of the Profession in the Medical Council; Mr. Nunneley; Mr. Southam; Dr. H. Simpson; and Mr. Watkin Williams.

Dr. SIBSON read the following memorial.

"The deputation from the British Medical Association beg to submit to the consideration of the General Medical Council the following propositions, founded on resolutions passed at the annual meeting held in Dublin in August 1867, with a view of obtaining direct representation of the profession in the Council. 1. That eight members to be elected by the registered members of the profession should be added to the General Medical Council, the Association being of opinion that the profession will not be adequately represented in the Council, as at present constituted, by a less number. That four should be elected for England, two for Ireland, and two for Scotland. 2. That the election should be by voting papers, to be distributed and collected by the registrars of the Medical Council in the respective countries. 3. That the tenure of office should be the same as that of the members of the Council appointed by the Crown. 4. That every candidate should be nominated by at least twelve registered members of the profession resident in the division of the kingdom for which he is to be elected; and he shall also signify to the registrar in writing, fourteen days before the day of distributing the voting papers, his willingness to serve, if elected. 5. The Association is of opinion that the addition of eight members to the General Medical Council, far from embarrassing its proceedings, will add to the confidence already reposed in the Council, and materially increase its influence. 6. The Association is of opinion that if the Council, in consequence of the addition of the members to be elected by the profession, should deem it advisable to recommend a diminution in the number of its present members, that then a corresponding reduction may be made in the proposed number of the representatives of the profession. "FRANCIS SIBSON, M.D.,

"*President of the Council of the British Medical Association.*

"EDWARD WATERS, M.D., *Chairman of the Committee.*

"T. WATKIN WILLIAMS, *General Secretary.*"

Dr. SIBSON said that the resolutions which were embodied in the memorial were carried nearly unanimously at the meeting of the British Medical Association held last year in Dublin. The Association had traditional claims to be heard on this question; inasmuch as the Medical Act originated from its labours. The Association, in taking this step, acted with a feeling of approbation towards the Council. But, looking at the Council as at present constituted, it would be seen that no single member could be said to represent the body of the profession. In the Council were most important representatives of the Universities and of the medical corporations; and, although it was said by some that the members were liable to be influenced by the corporations in a manner injurious to the interests of the profession, the Association did not entertain that view. No exception was taken to the members composing the Council, whether from corporations or the nominees of the government; and he (Dr. Sibson) did not know where more competent men could be found. But the deputation would suggest that, on the principle that taxation and representation ought to go together, the body of the medical profession had an eminent right to be represented in the Council. All the revenue of the Council came, not from the Universities, or from the medical corporations, or from Government, but from the registered general practitioners and physicians and surgeons. And it could not be said that, as at present constituted, the Council represented the profession. The Association did not wish to have a preponderance of representatives of the profession, but that they should constitute one-fourth of the Council. If the Council should be increased or reduced, the increase or reduction should fall equally on both classes of representatives. He would, in the last place, point out some of the advantages of the proposed addition. It would bring into the Council some of the best men in the provinces—men engaged in active duty, and familiar with the daily wants of the profession and the public. It would also secure to the Council the active support of the whole profession. It might be said that the additional members might not represent the public more than the present members; but, when it was considered that the members of the profession were constantly in contact with the public, it was evident that the addition would place great resources at the disposal of the Council. The Association had taken a large share in the formation of the Council, and had approved of its action and appreciated its labours. What the Association asked for, was not for its own good, but for the benefit of the entire profession.

Dr. EDWARD WATERS would endorse Dr. Sibson's remarks. When he was asked to act on the Committee regarding the representation in the Council, he at first hesitated, as the Council possessed his entire confidence; but his objection had been overruled. The more he heard on the subject, the more was he convinced that it was necessary for the Council to be reinforced by an addition of members from the profession; otherwise there was danger of disunion where union would otherwise exist—as in any discussion on the amendment of the Medical Acts. He believed that no amendment Bill could be carried unless in common cause with the wishes of the profession. There was one point to which he would call attention: Universities and corporations rose and fell with the times; but the body politic of the medical profession could never fail.

Mr. NUNNELEY had been from an early period connected with the agitation for altering the laws relating to the medical profession. The resolutions comprised in the memorial embodied the ideas of those who called the Council into existence. It was always intended that a portion of the Council should be elected by the profession; but difficulties had prevented this from being carried out. These difficulties were now removed; the machinery for ascertaining the voice of the profession was in existence; and the votes could be taken on the same principle as in voting in universities. He believed that the character of the Council would be very little altered by the additions proposed; but at present certain interests were represented, and certain interests relating to the profession were not represented as they ought to be. Even if no good came of the addition, at least no harm could arise from it.

The PRESIDENT OF THE COUNCIL said that the subject of the memorial should be carefully discussed. But the Council was not a self-constituted body, and it had no power in itself to alter its constitution. There was no prospect of an amendment of the Medical Act this year; and he believed that there was very little chance even for next year. The deputation had brought no charge against the Council; but they thought that certain interests were not represented. Could they point out any one particular in which the Council had failed in their duty towards the general body of the profession? It would be satisfactory to the Council to have information on this point. He was sure that they would be glad to know if they had unwittingly neglected any point bearing on the interests of the profession, so that they might deal with it.

Dr. SIBSON said that the Association had a large amount of confidence in the Council, and he believed that it had acted to the best of its power. But the power of the Council was not equal to its merits; and the Association wished to see the power increased by the addition proposed. The Association was ready to support the Council both in what it had done and in what it might do for the good of the profession. He thanked the Council for the manner in which the deputation had been received. The Association was not in a hurry; but he trusted that the Council would aid in procuring legislation on the point which had been brought under their notice.

The deputation then withdrew.

Dr. ANDREW WOOD moved—"That the Medical Council take into consideration its present constitution, with the view of determining whether it be advisable that it should be placed on a more popular basis, by the addition of a certain proportion of members to be chosen by the suffrages of registered practitioners."—It was evident that this was a fundamental question, and one on which the Council should not come to a decision without careful and calm deliberation. He had hoped that some other member would bring forward the motion; and it was only when he heard from the Registrar that no notice had been given, that he consented to propose it. It would be necessary to call the remembrance of the Council to the time preceding the passing of the Medical Act, when there was a professional war which continued nearly thirty years, and in which he had taken a part. One of the great bones of contention which hindered the passing of the Act was the difficulty of coming to a decision on the constitution of the Medical Council. It was proposed by some to hand over all the interests of the profession to a small Council to be elected by the Crown, the members receiving a salary of £1,000 a year. This was Lord Elcho's proposal; it was opposed by the profession; and, with the experience of the last ten years, the profession might be thankful that it was defeated. Next came conferences between the corporate bodies; and, after long cogitations, the constitution of the Council was decided on. The British Medical Association was not the main cause of the passing of the Medical Act, as had been said by Dr. Sibson. The Council at first gave almost universal satisfaction to the profession. The British Medical Association did not then object to it; it urged only that the Crown nominees should form one-third of the Council, in order that there might be representatives of the general practitioners. In the first Council were two of them—Sir Charles Hastings and Mr. Teale; but subsequently, he believed, the only one appointed was Dr. Rumsey.

It must not be supposed that he found fault with the nominations made by the Crown, when they comprised such men as Lawrence, Clark, Sharpey, Parkes, etc. It had been proposed in some journals to get rid of the Crown nominees; but this was no part of his scheme. It had been said that the general practitioners were not represented in the Council. But, on looking into the constitution of the Council, he found that there were in it eight pure physicians, three pure surgeons, eight gentlemen engaged in general practice, and three scientific teachers. When the list was passed, there could be no direct representation of the profession, because there was no *Register* and no constituency. If he were asked as to his choice of the best form of Council, he would choose one like the present, containing representatives of the universities, members of the medical corporations, and Crown nominees; with the addition of members elected directly by the registered practitioners. Of these apparently heterogeneous materials might be found a homogeneous and salutary compound. One advantage of such a Council would lie in the variety of its construction, the members of the corporations acting as a check on those representing the profession, and the latter, in turn, being a spur to the conservative tardiness of their colleagues. If the Council would not attend to the agitation going on outside, the whole constitution of the body would infallibly be overturned and its conservative element destroyed. His reasons for advocating the addition of members elected by the profession were the following. 1. The addition would give to the Council a strength which was wanted, and without which there was no hope of their having power to enforce their regulations. 2. It would make the Council more popular in the profession than (notwithstanding what had been said by the deputation) it had hitherto been. 3. The infusion of a popular element would awaken an interest in the deliberations of the Council, which was not at present felt. He had been struck with the small amount of interest which the profession took in the proceedings of the Council, and was convinced that this interest would be increased if the profession had a voice in the election of members. 4. The introduction of a popular element would give more certainty to the decisions of the Council, and remove the tendency to timidity and vacillation. 5. The giving the franchise to the profession would excite an *esprit de corps*. He was led to say this from what he observed of the working of the Scottish Universities Act. Before the passing of the Act, the graduates, after obtaining their degrees, were scattered apart from the University, and no longer felt interest in it. But now, as was shown in reference to the elections in the University of Edinburgh, the graduates took an interest in their University, and an *esprit de corps* existed among all the members. Another reason for carrying out the plan proposed, was that the provincial element would be better represented than at present. From the *Medical Directory* he had ascertained that there were in England and Wales 12,500 members of the profession—viz.; in London 2,833, and in the provinces 9,691; in Scotland, 1,717; and in Ireland 2,139, making in all 16,380. To these he would give six members allotted as follows:—London, 1; the provinces—to be divided into three electoral districts, northern, middle, and southern—3; Scotland, 1; and Ireland, 1. His reason for dividing the country into districts was to avoid the possibility of having some parts of the provinces unrepresented, or having all the four English members returned from London. Separate registers should be formed for each district. He gave these details, because he did not think his remarks could have any influence unless he could show a workable scheme. If he should succeed in carrying his proposal, he would be prepared to refer the details to a Committee. He would next proceed to consider the objections to the proposed addition to the Council. There were some persons who consented to the introduction of popular representation, but objected to an increase in the number of the Council. But which of the Universities or corporate bodies would consent to be disfranchised? Any attempt at disfranchisement or grouping would produce great difficulties in the way of legislation. Again, some of the medical journals spoke of the talking propensities of some members of the Council, and held up Sir D. Corrigan, himself (Dr. Andrew Wood), and Dr. Alexander Wood as the chief offenders. But there was no public assembly in which there was not a certain amount of superfluous alk; and he did not think the accusation brought against the Council was deserved. He did not think the quantity of speaking would be inreased by the proposed addition. Another objection was, that the Council would be too numerous. He did not think the objection valid. The Council did much of its work in Committees; and sometimes, as on Monday, there was difficulty in manning these. An addition of memers would enable more work to be done in Committees. The master ricvance, however, was that the Council met and talked, and cost a reat deal of money. He admitted the great expense, and had deplored . He would be prepared to propose a plan for decreasing the expense f the meetings. If the fees were reduced from £5 : 5 to £4 or even 3 : 10, there would be a saving. But there was something still better. The Council should reduce its fees for attendance to two guineas—the same as was paid to the Executive Committee. By this a saving of £600 a year would be effected; and, as the expense was lessened, the influence of the Council would increase. It must at the same time be remembered, that many at least of the members of the Council attended at a great pecuniary loss, and that the fee was a mere *honorarium* to them. They ought not therefore to be twitted on account of what they received. It was further objected, that the addition of representatives of the body of the profession would introduce the elements of agitation and discord. There was no fear of that; but a little wholesome agitation would be very useful. He thanked the Council for the patient hearing which they had given him. His only motives were the good of the Council and of the profession.

Sir DOMINIC CORRIGAN seconded the motion.

Dr. RUMSEY would correct one or two mistakes which had been made by Dr. Andrew Wood. He did not consider that the Crown nominees represented the interests of the general practitioners. He had accepted office merely on public grounds—as a representative, not of any special class, but of the nation. With regard to the remarks made concerning Sir C. Hastings, Mr. Teale, and himself, he would say that Sir C. Hastings was a pure physician; Mr. Teale, a pure surgeon; and it was many years since he himself had belonged to the body of general practitioners. All respect was due to the deputation which had been received; but, whatever might be the claims of the British Medical Association, or of the profession to representation, he would remind the Council that, in proportion as the representative element was enlarged, the less ready would Parliament be to give to the Council that increase of legislative and executive functions which was desired.

Sir D. CORRIGAN would correct an expression which had been used by previous speakers. They had spoken of the "general practitioner;" but, he believed, that word was not used in the memorial. What was desired was the representation of the *registered* practitioners, without reference to classes. He did not think that the President had acted rightly in the question which had been proposed to the deputation. Dr. Sibson had answered it with great tact; but he (Sir D. Corrigan) would have replied to it by another, viz., what has the Council ever done to protect the interests of the profession? He would not enter on a consideration of details, but would only refer to the principle under discussion. Was the present constitution of the Council satisfactory to the profession? After the evidence which they had heard, it was impossible to say that it was satisfactory to a large proportion of the profession. He had heard it said that it was unnecessary to increase the representation of the profession in the Council: that its duties were those of registration and education, and it could do those without help. But the Council could not confine itself to these two subjects; and it had not done so. The Council had considered the subjects of inquests, vaccination, medical evidence, the Pharmacy Bill, etc.; and would their deliberation not be improved by the presence of men acquainted with these subjects? Even on the question of education, the Council, as at present constituted, could not come to a satisfactory conclusion. They wanted the information of practical men. Within the last few days they had appointed a Committee on the Lunacy Laws; and there was no point in regard to which the absence of provincial men, who could explain their difficulties, was more to be regretted. Dr. Sibson had very ably urged that there ought to be no taxation without representation. Those who were taxed to pay for the Council were not represented in it; and there was no such anomaly elsewhere as that of a representative body being paid for by taxes levied on those who had no voice in its election. A great advantage of adding representatives of the profession to the Council would be, that the Council would become more popular. At present they were looked on as a small corporation of representatives of Universities and Licensing Boards; but if the registered practitioner were represented, those alone would be blameable if anything went wrong. He believed that the addition would lead to improvement in medical education; as the corporation would see that the Council contained men who would oppose admission to practice with two standards of qualification? Further, if the Council were united, as a representative body, with the profession, they would command more respect from government. In conclusion, he spoke of the want of connection between graduates and the universities, giving the Queen's University as an example.

Dr. ALEXANDER WOOD questioned whether it would be advisable to pass the motion in the terms proposed. He did not think it possible that the Council would avoid the consideration of the question; but was it wise to commit them to an inquiry with their hands fettered, and with a compulsion to go in one direction only? He would have the terms of the inquiry widened. Two or three years ago, when a committee on the Medical Acts was appointed, he had suggested the consideration of an alteration in the constitution of the Council; but was warned against this. He could not understand what had produced so great a change in the minds of some of the members. The constitution of the Council was the result of a compromise between opposing views. Some, as Sir B. Brodie, were altogether opposed to representation of the profession; others would have the Council made completely representative; while others wished it to be composed of Crown nominees. The Council should indicate no special views, but enter on the question quite unfettered. He moved, as an amendment,—"That the Council, as a Committee of the whole Council, take into consideration its present constitution, with the view of determining whether any alteration should be made in its constitution in any future Medical Act to be proposed."

Mr. HARGRAVE seconded the amendment. He differed from Sir D. Corrigan with regard to the proceedings of the President towards the deputation. The Council had brought the profession in the three divisions of the kingdom into union. The question of increasing the representation of the profession in the Council might, perhaps, be postponed for a time.

After some remarks, in favour of the amendment, from Mr. COOPER and Dr. AQUILLA SMITH,

Mr. SYME expressed his objection to considering the constitution of the Council at present. He would move an amendment to this effect at the proper time.

Dr. PAGET said that the British Medical Association was a body which was doing a great deal of good; but, while he did not oppose the proposal, he must confess that the arguments used by the deputation did not preponderate over the objections. He considered the President's question to Dr. Sibson a fair one. *Primâ facie*, the desire for a change in the constitution of the Council, and also the statement in the memorial regarding reduction of the number of members, indicated an opinion that the constitution of the Council was rather adverse to the interests of the profession. Some of the arguments used by the deputation were good; but he was not convinced by that relating to taxation and representation. The Council had no power of taxing the registered practitioners. It was quite true that £2 or £5 were paid for entering a name on the *Register;* but, when a name was once put on the list, there was no further power of taxation. In ordinary cases, an increase or diminution of a tax—such as the income-tax—affected all; but, if the registration-fee were either increased or reduced, those who were already on the *Register* would in no way be affected thereby. It was a mistake to call the registration-fee a tax.

At six o'clock the debate was adjourned.

WEDNESDAY, JULY 1ST.

The PRESIDENT took the Chair at 2 P.M.

Representation of the Profession in the Medical Council.—Dr. PAGET, resuming the debate on the subject, recapitulated his previous remarks, and said that another argument used in support of the proposal was, that the registered practitioners have a right to representation in the Council. This had been repeated frequently, until it was accepted by many as a fact. It was alleged in support of this that the Council was the governing body of the profession. It was not so; as would be at once seen by any registered practitioner who would consider whether he was governed by the Council. The Medical Act did not confer any power on the Council to govern the profession, except in regard to instances—fortunately very rare—of infamous conduct in a professional respect. And even here the Council did not act in a governing but in a judicial capacity. Again, certain clauses gave the Council power to inquire into the instruction given by the licensing bodies, and, through the medium of the Privy Council, to deprive them of the power of granting degrees and licences. But here the Universities and Corporations were the bodies governed by the Council; and, on the principles to which he had referred, these were of right represented. Admitting that it might be expedient that there should be direct representation, it would be incumbent on the advocates of this to show that the proposed addition of members would increase the power of the Council to do good. Of this he had heard no proof. He could not understand that the mode of election recommended would provide the Council with more efficient members than it had at present. As a matter of fact, the majority of the Council were men engaged in active practice; and he could not see why the present Council should not be held to represent the profession as well as if general practitioners were added. The special instances referred to by Sir D. Corrigan formed only a very small share of the duties of the Council; and he could not remember that a single question had been brought before the Council in which there was a deficiency of information among the members. Dr. Andrew Wood had stated fairly that the election of additional members would increase the interest taken by the profession in the Council. This he granted; but he could not agree with Dr. Andrew Wood's statement, that the additional members would be better acquainted with the feelings of the profession. If the Council were increased, probably some of the gentlemen who had formed the deputation would be the first elected representatives; but the remarks which they made did not indicate a very close acquaintance with professional feeling. In any case it was open to doubt whether these gentlemen, eminent as they were, would represent the feelings of the profession better than the present Council. Again, it was said that the addition would strengthen the Council and increase its influence with the Government and the public. It was a great mistake to suppose this. The Council was especially anxious to have increased power in reference to Clause 40 of the Medical Act. Was it to be supposed that a deputation of the Council to Government would be listened to more readily if they said that they spoke the views of the profession? He thought the contrary. Dr. Paget here read some extracts from a letter published by Dr. Bewley, of Clara, King's County, at page 277 of the JOURNAL for September 28, 1867, and expressed his concurrence with the views of the writer. As to the statement that the addition of six members would not increase the talk in the Council, he had great respect for Dr. Andrew Wood's opinion, but would have liked to find it supported. If the additional members were to advocate the interests of their electors, they must make speeches; and he believed that these would add more than one-fourth to the amount of talk. He thought Dr. Andrew Wood's scheme preferable to that of the deputation. But, in either case, there would be a liability to a preponderance of English members over those for Scotland and Ireland. He was satisfied with the present constitution of the Council; and agreed with Mr. Hargrave's remarks on the union which it had produced. In this it had achieved what legislation had not been able to accomplish for the clerical and legal professions. Englishmen could scarcely understand Scotch law; and there would be a great outcry if it were attempted to assimilate the Scottish law to the English. No estimate had been made of the trouble and expense attending the election of representatives, even under Dr. Andrew Wood's plan. In illustration, he would refer to the last election for a member of Parliament in the University of Cambridge. There were three returning officers, assisted by several assessors; and they had hard work for more than three days in collecting the votes. The total number of votes given was 3336; mostly by voting papers. The legitimate expenses of the two candidates—and it was not a very strong contest, as both held the same political views—was above £2000. All these things should be taken into account; and the subject should not be discussed as one of mere sentiment. He (Dr. Paget) was returned to the Council by a constituency of 5400. Sir Dominic Corrigan was elected by about twenty gentlemen; and he would suggest to Sir Dominic, that the election in the Queen's University should be open to the Doctors of Medicine and Masters of Arts. Again, the election in the Edinburgh College of Surgeons might be thrown open to the whole body of the College; and in this case he was sure that Dr. Andrew Wood would still be elected. A plan of this kind would secure popular representation in the Council.

Dr. SHARPEY agreed to a great extent with Dr. Paget's remarks. Both the motion and the amendment pledged the Council to an inquiry into its constitution, and he held that such inquiry was necessary. If an amended Medical Bill were introduced into Parliament, the question of alteration of the constitution of the Council would be inevitably introduced. In any inquiry that might take place, Dr. Paget's arguments ought to be studied. He agreed with Dr. Paget in his remarks on taxation. If he supported the motion, it would be for the public good, not on mere sentimental grounds. He thought that his argument about taxation and representation put the matter on rather a low footing.

Dr. STOKES, having been Chairman of the meeting of the British Medical Association at which the question was brought forward, could not give a silent vote. He was disposed to vote both against the motion and against the amendment. Nothing that had as yet been said showed that the addition of new members would really improve the Council. The Council was at least indirectly, with the exception of the Crown nominees, elected by the profession. There was no more prevalent error than to expect the full result of a legal enactment in a limited period of time; and he maintained that the present movement was premature. It could not be denied that great good had followed the establishment of the Council. What was to be feared from popularising it was, that questions besides those involving the real and general interest of the profession would be brought forward; such as questions relating to fees, or to private or professional differences—matters which brought discredit on the profession and were of no interest to the public. It was vain to expect legislation unless it could be shown that the changes proposed were for the public good. The Council had been engaged in the elevation of the profession; and this was the only proper course for the removal of grievances

Dr. STORRAR agreed altogether with Dr. Paget's remarks. He would remind the Council that, when the Medical Bill was drawn up, if the Council had been entirely composed of representative members, there would have been five for Scotland and Ireland and seven for England. The Crown nominees were appointed for three purposes: to fill up the Council; to satisfy the views of those who preferred a nominated Council; and to meet the view that the Council was not for the medical profession only, but also for the public. Many were of opinion that the Council should be partly formed of laymen; and there was in the Medical Act no provision that either the representatives of the Universities or the Crown nominees should be registered medical men. Even now, some thought that the constitution of the Council was a failure because laymen had not been placed on it. He agreed with Dr. Paget as to the fallacy of the argument regarding taxation and representation. The registration fee was not like an ordinary tax; it was analogous to a fee for registry of deeds, marriage settlements, copyright, etc. When a member of the profession became registered, he did so in order to make he fact of his being qualified generally known; and in return for his fee he got registration for life, and certain privileges. It was not the registered, but the unregistered practitioner, who might complain of a grievance. Before the passing of the Act, any man was entitled to prac-ise according to his knowledge, and to be paid for it. But now the Act entitled only registered persons to recover. Looking at the proposal with a mind disposed in favour of popular institutions, he believed that . popular representation in an administrative body, such as the Council was, was an entire novelty. He was not disposed to encourage the proposal of increased representation in the Council; nor to discourage it. But it was not right that this entirely new question should be laid be-ore the Council for solution. The British Medical Association, and imilar bodies might rightly consider and solve it; but it was not a uestion for the Council.

Dr. RISDON BENNETT thought there were two or three fallacies in he statement made by the deputation; viz., that the Council was ap-ointed for the government of the profession; and that it was composed f nominees only, and had no representative element in it. He had not een sent to the Medical Council by the Council of the College of Phy-cians, but by the whole body of the Fellows. It was also a fallacy to ate that the profession had expressed any opinion on the subject. The British Medical Association, though a large and very useful body, was ot the profession, and could not be said to represent the profession at rge to any extent. He had failed also to ascertain from the deputa-on that they were expressing the opinions of the majority of the Asso-ation. It would be sufficient time to consider the alteration of the onstitution of the Council, when the question should be brought before iem in connection with a Medical Bill.

Dr. PARKES thought that a good case had been made out for con-dering whether the constitution of the Council might not be improved y the introduction of a new class of members, and whether its counsels ould not be thereby strengthened. He believed this would be the case; r the opinions of bodies elected by representation were always re-rded with more consideration. If the alteration in the Council were esired by the general profession, this alone would be a reason for con-dering the proposal. He thought that what had been said in the medical urnals and in the British Medical Association showed that there was a ry strong desire that the Council should consider the matter. What ould be the result of the dissussion, he could not indicate; but it had en made out that a consideration of the subject was necessary. He ould, however, have the discussion deferred till next year, so that the ofession might have an opportunity of stating what changes they ought necessary.

Dr. ALEXANDER WOOD withdrew his amendment.

Mr. SYME said that if the Council entered on the inquiry proposed, ey must decide whether the change was admissible or not. If the ter were the decision, offence would be given to a large and influential dy of the profession. On the other hand, if a change were decided be advisable, this would be an admission on the part of the Council it its constitution was imperfect, and that it was not worthy of con-ence. He moved as a second amendment—"That, under the pre-it circumstances, it would not be expedient for the Council to consider propriety of attempting to obtain a change of constitution."

Mr. CÆSAR HAWKINS seconded the amendment. He had not been iember of the British Medical Association, because he thought that t body had shown want of confidence in the corporations. He saw reason for the proposed increase of the Council. When the Act was sed, the six nominees were chosen, not to represent the Crown, but popular element; and one great argument used in favour of this ointment of the Crown nominees was that they would represent the fession at large. The members of the Council were by no means mere representatives of the corporate bodies. He remarked that the presidents of the British Medical Association who were in the Council did not appear to be in favour of the proposal.

Dr. ACLAND said that the Presidents had nothing to do with the politics of the British Medical Association. The Association, like other similar institutions, did a great deal of good, and might also sometimes do harm. As to the Medical Association, it was his duty to say that it comprised about one-fourth of the profession; but he admitted that it was quite right to say, with Dr. Bennett, that the Association was but a part of the profession. As to the change of constitution of the Council, he thought that as soon as the question of increase was raised, another question would be at once started. He must vote against Dr. Andrew Wood's motion, because it limited the inquiry too much. It had been said in some quarters that the Council was much too large; and if the constitution of the Council were discussed, the question of reducing its number would be brought forward; and the view might be adopted by the House of Commons. When the Council was first constituted, he looked with apprehension on its large number, and the conflicting interests which existed in it; and regarded with consternation the deliberations which must take place. But, after an experience of ten years, he had entirely changed his opinion; and there were no acts in his life to which he could look back with greater pleasure than to the share which he had had in the proceedings of the Council. This satisfactory result arose out of the difficulty of the circumstances in which the Council was at first placed, and the necessity of all working together for the public good. He believed that the Council had done all that could be done. Persons outside did not understand the difficulties and labours which the Council had had to undergo. It was impossible that a body should agitate the question of its mutilation without taking into consideration not only what had been done, but also the possible effect on the future. A more inopportune time for opening the question could not easily have been fixed on. After going through a large amount of discipline, after an experience of many years, personal as well as that which appeared in the minutes, the Council were comparing results, and trying to bring matters into two or three foci, and to collect the opinions of qualified persons on such points as Medical Education, State Medicine, etc. He wished that the question now brought forward had been delayed. Still, it could not be easily shelved. He wished that Dr. Sibson, and his colleagues in the deputation, could be made to understand that some delay was necessary; that it was not probable that a Medical Acts' Amendment Bill could be yet brought forward; and that, when the constitution of the Council was examined into, the whole question must be considered. Suppose that the committee on State Medicine should propose to add a new qualification to the *Register*, and that the Council should adopt the report, and that the government should appoint a commission to investigate the matter and confer with the Council, nothing could be more unfortunate than a discussion on the constitution of the body to which the question regarding State Medicine was submitted.

The PRESIDENT had heard that, while he was absent on the previous day, his conduct towards the deputation had not given satisfaction to all the members of the Council. He should regret if he had failed to represent the feelings of respect which all the Council had towards the deputation. But he considered that, as President, he had to vindicate the position of the Council; and therefore he put certain questions to the deputation in order to elicit necessary information, and put the whole Council in possession of all the facts of the case. He agreed with Dr. Paget as to the merits of the question under discussion. The Council was formed to represent the interests of the profession in certain matters, and also the interests of the public. The Council was an administrative body, to carry out an act of Parliament. If it were not so—if it were a sort of Parliament to represent all the interests of the profession as well as being a Council of Medical Education and Registration, then he would confess that such a change as was asked for would be necessary. As to the proposal to admit more members, he did not see how the deliberations of the Council would be improved or strengthened thereby. There were some active and energetic men who had not enough of ordinary routine work to fill up their time; and there were some benevolent and philanthropic persons who felt that the profession was not justly treated in many points; and the feelings of these men and their actions were honourable to them. Such men would be probably introduced into the Council; but he did not think that they would materially assist in the questions which that body was specially called on to consider. He disapproved of an increase in the size of the Council; and he did not know which of the examining bodies would consent to be disfranchised. On the other hand, no one would desire the resignation of the Crown nominees. His wish was, that the Council should go on as at present constituted, and do its duty to the profession and the public. He agreed with Dr. Acland that it was unfortunate that the question of altering the constitution of the Council should be brought forward at the present time.

Dr. ANDREW WOOD, in reply, said that the present raising of the question was neither inopportune nor unfortunate. It might be bad to occupy the Council with a matter which was not pressing, but it was worse to give the profession an idea that they were not attended to. An agitation was going on in the profession; and if the Council would not take up the question, it would be taken up in other quarters. He would consent to the appointment of a Committee to report next session on the whole subject of the formation of the Council. He dissented from the President's statement as to the limitation of the duties of the Council, and from Dr. Paget's remarks on taxation. The money of the Council came from the registered practitioners for the purpose of defraying the expenses of working the Medical Act. The registration fees might have been an annual tax, but, in order to avoid difficulty and trouble, a kind of compounding clause had been introduced into the Act. At all events, many members of the profession considered that they were taxed. Again, if it were the case that the Crown nominees were not of necessity medical men, was not this a reason for providing for an adequate representation of the profession? He had never proposed the removal of Crown nominees from the Council. He thought that, if there appeared to be a steady expression of opinion on the part of a large body of the profession, the Council ought to consider the question brought before them.

Mr. SYME's amendment was then put to the vote, when there appeared: for, 16; against, 4.

When it was about to be put as a substantive motion, Sir D. CORRIGAN proposed as a further amendment:—"That a Committee be appointed to consider whether it may be expedient to enlarge the constitution of the General Medical Council by the admission of representatives from the Registered Practitioners of the United Kingdom; and that it be an instruction to the Committee in drawing up their Report, to embody in it, as far as in their power, for the information of the Council, the several views and reasonings that may be adduced both for and against the alteration of the constitution of the Council."

The PRESIDENT decided that the amendment was informal, being a repetition of Dr. Andrew Wood's motion. Mr. Syme's amendment was then put as a substantive motion, and carried by a majority of 18 against 4.

The Pharmacy Bill.—Dr. RUMSEY proposed, Dr. ACLAND seconded, and it was, after some discussion, resolved:—"That a committee be appointed to consider and report on the bill for the regulation of Pharmacy now before Parliament, in order that if it should appear desirable the opinion of the General Medical Council may be represented by Petition to Parliament, or by memorial to Her Majesty's Ministers, before the said bill shall become law."

The committee was appointed to consist of Dr. Rumsey, *Chairman;* Dr. Acland; Mr. Cooper; Sir D. Corrigan; Dr. Alexander Wood; and Dr. Leet. Authority was given to the Committee to communicate with the President and Council of the Pharmaceutical Society.

The Pharmacopœia and Dr. Redwood.—Dr. QUAIN moved, Mr. HARGRAVE seconded, and it was resolved:—"That the Treasurers be authorised to pay the sum of £50, voted by the Pharmacopœia Committee of 1867 to be paid to Dr. Redwood for his special and extra services in the preparation of the work, but omitted in the amount submitted for payment to the Council at its last session."

On Thursday, the Council received and adopted a report from the Pharmacopœia Committee; a report from the Committee on Lunacy Certificates, embodying a form of letter to be addressed by the President to Mr. Secretary Hardy; and an elaborate report on Public Vaccination, including a draft of a letter to the Medical Officer of the Privy Council. The Council recommend the examining bodies to require from candidates certificates of instruction in vaccination.

ASSOCIATION INTELLIGENCE.

NORTH WALES BRANCH.

THE annual meeting of this Branch will be held on Tuesday, July 7th, at 1.16 P.M., at the Parade Hotel, Rhyl; J. WILLIAMS, Esq., Holywell, President-elect in the chair.

Dinner will be provided at four o'clock precisely; tickets 12*s.* 6*d.* each, to be had at the bar of the above hotel. Gentlemen intending to dine will please give a few days' notice.

It is requested that members having papers or cases to communicate, will be good enough to forward the titles of the same to the Secretary.

Beaumaris, June, 1868. D. KENT JONES, *Hon. Secretary.*

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-sixth Annual Meeting of the British Medical Association will be held in Oxford, on Tuesday, Wednesday, Thursday, and Friday, the 4th, 5th, 6th, and 7th days of August next.

President—WM. STOKES, M.D., D.C.L., Regius Professor of Physic in the University of Dublin.

President-Elect—H. W. ACLAND, M.D., F.R.S., Regius Professor of Medicine in the University of Oxford.

The Address in Medicine will be delivered by W. W. GULL, M.D., Physician to Guy's Hospital.

The Address in Physiology will be delivered by GEORGE ROLLESTON, M.D., F.R.S., etc., Senior Professor of Anatomy in the University of Oxford.

The Rev. Professor HAUGHTON, M.D., of Trinity College, Dublin, will introduce for discussion—"The change of opinion as to the Sources of Vital and Mechanical Force derived from Food, and its influence upon Medical Practice."

The business of the meeting will be conducted under *five* Sections; viz.:—

Section A. MEDICINE.—*President*, Sir Wm. Jenner, Bart., M.D., F.R.S. *Secretaries*, Dr. E. L. Fox, Clifton; Dr. William Roberts, Manchester.

Section B. PHYSIOLOGY.—*President*, Professor Rolleston, M.D., F.R.S. *Secretaries*, Dr. W. L. Church, London; Professor Beale, M.B., F.R.S., London.

Section C. SURGERY.—*President*, James Paget, Esq., F.R.S., London. *Secretaries*, T. P. Teale, M.A., M.B., Leeds; W. Stokes, jun., M.D., Dublin.

Section D. MIDWIFERY.—*President*, Sir C. Locock, Bart., M.D., F.R.S., London. *Secretaries*, Dr. Wilson, Glasgow; J. G. Swayne, M.D., Clifton, Bristol.

Section E. PUBLIC MEDICINE.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D., Manchester; T. J. Dyke, Esq., Merthyr Tydvil.

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary, at their earliest convenience.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary.*

13, Newhall Street, Birmingham, July 1868.

METROPOLITAN COUNTIES BRANCH.

THE sixteenth annual meeting of the above Branch will be held at the Crystal Palace, Sydenham, on Wednesday, July 8th, at 3 P.M. *President* for 1867-68, W. O. MARKHAM, M.D.; *President-elect* for 1868-69, J. E. ERICHSEN, Esq., F.R.C.S.

At 5.30 P.M. the members will dine together; JOHN E. ERICHSEN, Esq., in the Chair.

A. P. STEWART, M.D.
ALEXANDER HENRY, M.D. } *Honorary Secretaries.*

London, June 9th, 1868.

BATH AND BRISTOL BRANCH.

THE annual meeting of the above Branch will be held at the Mineral Water Hospital, Bath, on Thursday, July 9th, at 4.45 P.M. R. N. STONE, Esq., President-elect.

Members and friends will dine at the York House, at 6.30. Dinner tickets, exclusive of wine, 7s. 6d.

Bath, June 1868. R. S. FOWLER, *Hon. Secretary.*

YORKSHIRE BRANCH.

THE annual meeting of the above Branch will be held in the Medica School, Park Street, Leeds, on Thursday, July 9th, 1868, at 3 P.M. J. D. HEATON, M.D., in the Chair. The members will dine at th Midland Station Hotel at 5.30 P.M. precisely.

Members intending to read papers or cases, are requested to communicate with the Honorary Secretary, at their earliest convenience.

W. PROCTER, M.D., *Honorary Secretary.*

York, June 24th, 1868.

READING BRANCH.

THE Annual General Meeting of the above Branch will be held in th Council Chamber, Reading, on Wednesday, July 15th, at 5 o'clock.

HE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

BODMIN UNION.

Extras for Sick Paupers.—The Guardians of the Bodmin Union ave notified their district medical officers that henceforth, in ordering xtra diet for sick paupers, they must append to each recommendation certificate as to the fitness of the patient for removal into the workouse, and must renew the certificate every seven days. It is well nown, however, that in sparsely populated districts there are many disant cases of long standing and chronically exhausting character which annot properly be tied down to the potential diet of an allowance of wo shillings and sixpence per week; and to require the union doctor, ardly and urgently worked and scantily paid, to ride many miles every veek to hear the usual "Just as you please, sir," is a device—not conealed—to diminish the "extra allowances ordered by the medical offiers of this union". It will increase the temptation, always great in parsely populated districts, to send the pauper into the house, where he necessary beef and alcohol become, not "extras recommended for aupers", but, according to the official heading in the book, "necessaries rdered for the patient." But, if they are necessaries in the house, why ot out? and are the guardians able to refuse them upon order of the nedical officer?

The Payment of Postage on Certificates of Successful Vaccination.
ir,—As considerable doubt and misapprehension exist upon the above subject, I beg to forward you the accompanying correspondence, in the hope that some positive ruling in respect of the law of the case may be elicited. I am, etc.,
Brentwood, June, 1868. Benj. Baker.

Copy. "Brentwood, June 2, 1868.

"Sir,—The enclosed certificate of vaccination was forwarded to the District Registrar unsealed, through the post-office; it has been returned to me from the head office with a charge of twopence upon it. By section 23 of the 30 and 31 Vic., c. 84, medical practitioners are required to give certificates of successful vaccination, which certificates are to be transmitted, "by post or otherwise", to the Registrar. A form of certificate is given in Schedule D to the Act, upon the cover of which is printed "unpaid". The clause in the Act, coupled with the form, clearly proves to my mind that these certificates are free from postage; otherwise the word 'unpaid' on the cover is a misnomer. As the postmaster of Brentwood has doubts upon the subject, I beg to refer the matter to you.

"I have the honour to be, sir, your most obedient servant,
"The Postmaster-General." "Benj. Baker.

Copy "5068. "General Post-office, June 15, 1868.

"Sir,—In reply to your letter of the 2nd instant, I beg leave to inform you that, in the opinion of the Solicitor of this department, there is nothing in the Act to which you refer to exempt certificates similar to that which I return from being charged with postage. "I am, sir, your obedient servant,
"B. Baker, Esq." "F. Hill.

Copy. "Brentwood, June 16, 1868.

"Sir,—I beg to acknowledge the receipt of your letter of yesterday, No. 5068, informing me 'that, in the opinion of the Solicitor of this department, there is nothing in the Act which exempts certificates of vaccination from being charged with postage'. Permit me to remind you that, in order to establish the charge, the evidence must be of a positive, and not of a negative character, inasmuch as the Act makes it compulsory to transmit these certificates, 'by post or otherwise', and the official cover directs them to be 'unpaid.' I must apologise for upholding my own opinion in opposition to so high a legal authority as the solicitor to a public department; but, as this gentleman's view of the law entirely ignores the principle upon which the 30 and 31 Vic., c. 84, is founded (viz., gratuitous vaccination), I beg leave to direct your especial attention to my farther observations upon this case.

"I have the honour to be, sir, your most obedient servant,
"The Postmaster-General." "Benj. Baker.

To this no reply has been made.—B. B.

Subscriber (Burringham by Doncaster).—The qualifications of M.B. and C.M. are sufficient for a Poor-law appointment.

The so-called Waxy Degeneration of Striped Muscle.—r. Erb of Heidelberg has published the result of his investigations to the nature of those changes which, according to Zenker, take place certain voluntary muscles, especially those in front of the thigh and e abdomen, during typhoid fever. From *post mortem* observations n the human subject, and experiments on frogs, rabbits, and dogs, Dr. rb has been led to believe that the so-called waxy degeneration of oluntary muscular fibre is produced in any healthy muscle when it is jured, and is observed whether the irritated tissue be allowed to reain in the living body or whether it be removed. This degeneration stated to result from a coagulation process analogous to, if not idencal with, rigor mortis. This alteration may take place even in uninred fibres in muscles that have undergone pathological change. Some ndetermined chemical or molecular change is probably the cause of is condition. In these cases, however, it originates in rigor mortis, that the "waxy degeneration" must be considered as a *post mortem* henomenon."—*Virchow's Archiv*, band xliii, 1868.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 25th, 1868.

Leland, John Smallman, Boyle, co. Roscommon, Ireland
Orton, Frederic, Beeston, Notts
Royds, William Alexander Slater, Bedford

At the same Court, the following passed the first examination.

Aldrich, Edward Frederick, St. Bartholomew's Hospital
Hitchcock, Henry Knight, St. Thomas's Hospital
Hardyman, Edward Charles, St. Thomas's Hospital

University of Durham: Examinations in Medicine and Surgery, Easter Term, 1868.—The following gentlemen, having undergone the necessary examinations, were approved.—Examination for the Degree of Bachelor in Medicine.

Gilchrist, George Cuthbert
Newcombe, Frederick William

Second examination for the Licence in Medicine and the Degree of Master in Surgery.

Newton, Robert Clark

First examination for the Licence in Medicine and the Degree of Master in Surgery.

Halket, Lawrence John

MEDICAL VACANCIES.

The following vacancies are declared:—

ALNWICK UNION, Northumberland—Medical Officer for the Embleton District.
BALLINA UNION, co. Mayo—Medical Officer for the Crossmolina Dispensary District
BLACKBURN (Lancashire) BOROUGH POLICE—Physician.
DAVENTRY UNION, Northamptonshire—Medical Officer for District No. 1; Medical Officer for the Workhouse.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
GLOUCESTER COUNTY LUNATIC ASYLUM—Assistant Medical Officer.
ISLINGTON DISPENSARY—Two Physicians.
LIVERPOOL ROYAL INFIRMARY and LOCK HOSPITAL—Superintendent and Dispenser.
MANCHESTER TOWNSHIP—Medical Officer for the Cathedral District.
MIDDLESEX LUNATIC ASYLUM, Hanwell—Assistant Medical Officer.
NORTHAMPTON GENERAL INFIRMARY—Assistant to the House-Surgeon.
NORTHERN HOSPITAL, Liverpool—Junior Surgeon.
ROTHERHAM UNION, Yorkshire—Medical Officer for the Wath District.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician; Assistant-Physician.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
ST. GILES and St. GEORGE, Bloomsbury, Parishes of—Resident Assistant Medical Officer.
ST. LUKE, Middlesex, Parish of—Public Vaccinator.
ST. MARYLEBONE GENERAL DISPENSARY—Physician and Surgeon.
ST. THOMAS'S UNION, Devon—Medical Officer for the Topsham District.
SIR PATRICK DUN'S HOSPITAL, Dublin—Resident Apothecary.
SURREY LUNATIC ASYLUM, near Tooting—Assistant Medical Officer.
TRINITY COLLEGE, Glenalmond—Resident Medical Officer.
WELLINGTON UNION, Somersetshire—Medical Officer for part of District No. 2; Medical Officer for District No. 4.
WEST DERBY UNION, Lancashire—Medical Officer at the Workhouse.

MEDICAL APPOINTMENTS.

Arnott, Henry, Esq., appointed Surgeon to the Western General Dispensary.
Jones, Edward, M.D., has been appointed Medical Officer for the Dolgelly Union Workhouse, and Public Vaccinator for the Dolgelly District of the Dolgelly Union.

BIRTHS.

Davis.—On June 29th, at Mortimer, Berks, the wife of G. H. Davis, L.R.C.P.Ed., prematurely, of twin daughters.
Evans.—On June 13th, at Acacia House, Finchley Road, the wife of Evan Evans, M.D., of a son and a daughter.
Foley.—On June 20th, at Kilrush, the wife of Wm. Foley, M.D., of a daughter.
Malins.—On June 21st, at Cradley Heath, Staffordshire, the wife of *Edward Malins, M.B., of a son.
Murray.—On June 19th, at Rathmines, Dublin, the wife of W. Sim Murray, M.B., Surgeon 66th Regiment, of a son.
Thorburn.—On June 22nd, at Oxford Street, Manchester, the wife of *J. T. Thorburn, M.D., of a son.

DEATHS.

*Burke, Thomas, M.D., at Scariff, co. Clare, on June 20th.
Rutherford, George Shaw, M.D., R.N., at Devonshire Street, Portland Place, aged 81, on June 17th.
Spurgin.—On June 10th, at Lewisham, aged 23, Walter, son of the late John Spurgin, M.D.

Death of Dr. Kennion.—We deeply regret to announce the death of Dr. Kennion of Harrogate. We are compelled by pressure on space to postpone an obituary notice.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

KING'S COLLEGE HOSPITAL, Saturday, July 4th, at 2 P.M. Two cases of cleft palate; lithotrity; for necrosis of humerus; tapping ovarian cyst; for fistula *in ano*—by Sir W. Fergusson. For ununited fracture of forearm; for prolapsus ani—by Mr. Henry Smith.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Epidemiological Society, 8 P.M. Dr. Archibald Smith, "On Endemic and Epidemic Influences in Peru."—Entomological Society.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

IN consequence of the length of the report of the proceedings of the Medical Council, especially of the important discussion on the representation of the medical profession in that body, we are obliged to defer reports of Branch meetings and other matters.

DENS SAPIENTIÆ.—The successor of Mr. Luke as an Examiner in Dental Surgery has not yet been appointed.

COMPRESSED PROTOXIDE OF NITROGEN.—The address of Mr. Barth, who supplies this gas, is No. 26, Duke Street, Bloomsbury, W.C., near the British Museum.

PRELIMINARY EDUCATION.

SIR,—I have read in the JOURNAL of June 20th the letters on the above subject. In my letter, which appeared in the JOURNAL of June 6th, I expressed an opinion that a medical periodical is not the proper place to urge the wants of any religious sect. The question (a sectarian one) raised by "Habitans in Rure" might properly have appeared in a Church of England paper; but party religion as well as party politics should be unknown among us as a professional body.

I did not say *all* religious teaching should be excluded from schools; but I think, in every professedly open school, dogmatical teaching should be excluded. Neither did I deny that art and science can be associated with sectarianism; but whether it be advisable, is a question which cannot with propriety be discussed here. Certain it is, the tendency of the times is to dissociate religious from secular teaching.

As regards the Epsom College, I presume I am to understand that any dissenter desirous of obtaining the benefits of that charity must lay aside his religious convictions. The governors of that institution have an undoubted right to make what rules and restrictions in the matter of religion they may deem proper; but I think the designation "Medical College", under such circumstances, too catholic and comprehensive.

If your correspondent, "Habitans in Rure", had simply stated his requirements, and asked you to recommend him a school, no one could have taken exception to such a course; but when your aid is solicited for a sectarian purpose, I think an irregularity is committed (although unintentionally) which requires to be noticed.

June 1868. I am, etc., HABITANS IN URBE.

A PROVINCIAL FELLOW.—The election of President and Vice-Presidents of the College will take place next Thursday, and will be made by the Council. Every candidate for a seat in the Council must be nominated by six Fellows.

H. J.—If you pass the examination at the College of Physicians, you will not again be examined in medicine at the College of Surgeons. The new regulation comes into operation after October, and as an "L.S.A." you are exempt.

AN ANXIOUS INQUIRER wishes to know when the result of the recent Arts Examination at the College of Surgeons will be known. As we have received several letters on the subject, we can only suggest that our correspondents should inquire of the Secretary of the College. Probably next week.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

THE BRITISH MEDICAL ASSOCIATION.

SIR,—Any one who will compare the present condition of the British Medical Association with its state a few years ago, cannot be otherwise than gratified with the great progress it has made both in numbers and influence; and the time may some day come when it will be an exception and a disgrace not to have joined its ranks. But to secure this result, the Association must work, and more energetically than it has hitherto done. At present, it has for the most part been satisfied to express the opinion of its members at the annual meetings; and then, failing to carry its views into effect, its resolutions have merely had the moral force due to an united expression of opinion, whilst complete and immediate success would have followed the attempt to enforce them.

No paid official, however industrious and enthusiastic, can do the work required of such an Association; but if, after a principle has been decided on at a general meeting, a *small* committee were appointed of those interested in any special subject and directed to refer to the Committee of Council for instructions, and furnished with pecuniary means for necessary expenses, it would be enabled to enforce resolutions which have hitherto been followed by little immediate effect.

Take, as an illustration, the case of Dr. Stirling. There would be little difficulty and not much expense in causing petitions to be presented by a majority of the members of Parliament, praying for an inquiry into what appears to be a case of flagrant injustice. Each petition could be accompanied by a written appeal by some medical man personally known to the member for his district. Success would be probable; but even to fail would tend to increase the influence of the Association. Or take again the question of voting by proxy for the fellowship of the Royal College of Surgeons, or the representation of the general practitioner in the Medical Council. These questions and many others of general interest could be speedily settled, instead of requiring years, as they do at present.

The organisation for such purposes is complete; we need the executive power to utilise our influence. I am, etc., B. A.

⁂ It is quite competent to any one to move at the annual meetings of the British Medical Association for the appointment of special committees on Dr. Stirling's case or any other subject. Such a committee was last year appointed on State Medicine, and has done excellent work during the year. It is, however, of course desirable that such committees should not be appointed *nisi dignus vindice nodus*. The Committee of Council is itself a standing committee, to which the carrying out of any resolutions of remonstrance, etc., may be advisedly committed. If committees, of which the members live at distant places and are much affected, are appointed, the objects must be such as to justify the sacrifices involved, and as cannot well be attained by the existing executive Committees of Council and of the Branches.

DR. H.—You will obtain the information by writing to the Registrar of the College of Physicians. The Examiners in Medicine at the College of Surgeons will be elected on Thursday next. Dr. Alderson is the President.

BIBLIOPOLE.—The Library and Museum will not be closed until September next.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Aberdeen Journal, June 17th and 24th; The Preston Herald, June 27th; The Harrogate Herald, July 1st; The Leeds Mercury, July 1st; The Antigua Times, June 6th; The Devizes and Wiltshire Gazette, June 25th; The Public Health, July 1st; Aberdeen Free Press; and Aberdeen Journal.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Wiltshire, London; Dr. Wm. Budd, Clifton, Bristol; Dr. W. Procter, York; Mr. Henry Arnott, London; Dr. Morris, Barnsley; Dr. Ballard, London; Dr. C. Currie Ritchie, Edinburgh; Dr. W. M. Beddoes, Shrewsbury; Mr. T. Pope, Cleobury Mortimer; Mr. H. Stear, Saffron Walden; Dr. Alexander Ogston, Aberdeen; Dr. W. Rutherford, Edinburgh; Mr. G. B. Weller, Wanstead; Mr. G. Greencock, Nottingham; Mr. R. Coates, London; Mr. Constable, Cambridge Dr. R. L. Blake, London; Mr. Crossman, Redlands, Bristol; Mr. H. Ruck, Lincolnshire; Mr. Charles Cooper, Needham Market; Mr. Ransome, Bowden, Cheshire; A Country Fellow; and Dr. Morell Mackenzie, London.

LETTERS, ETC. (with enclosures) from:—

Mr. T. Spencer Wells, London; Dr. Thorburn, Manchester; Dr. F. J. Brown Rochester; Dr. Oxley, Liverpool; Mr. G. Cordwent, Taunton; Dr. C. Taylor Nottingham; Mr. G. Greaves, Manchester; Dr. W. T. Greene, Moira; Mr. L Gros Clark, London; The Honorary Secretary of the Royal Medical and Chirurgical Society; The Secretary of Apothecaries' Hall; Dr. John Murray, London Mr. Holloway, London; The Registrar-General of England; Mr. T. M. Stone London; Mr. St. George Mivart, London; The Registrar-General of Ireland The Secretary of the Epidemiological Society; Dr. S. S. Roden, Droitwich; Dr. E. Malins, Cradley Heath; Mr. A. Fleischmann, Cheltenham; Dr. Chepmell Paris; Dr. T. W. Evans, Paris; Dr. Falconer, Bath; Professor Lister, Glasgow Dr. Hughes Bennett, Edinburgh; Dr. Mapother, Dublin; Mr. Solomon, Birmingham; Dr. Humphry, Cambridge; Dr. Wilks, London; Dr. Lanchester, Croydon Dr. Acland, Oxford; Dr. Duchenne, Boulogne; Mr. Burford Norman, Portsmouth; Mr. Dayman, Milbrook; Mr. J. White, Nottingham; Mr. J. G. Burke Killaloe; Dr. G. Rollestone, Oxford; Dr. J. B. Pitt, Norwich; Mr. Braithwaite Lincoln; Dr. R. P. B. Taaffe, Brighton; Dr. B. Baker, Brentwood; Dr. Henr Simpson, Manchester.

BOOKS, ETC., RECEIVED.

Principles of Forensic Medicine. By William A. Guy, M.B.Cantab., F.R.S. Thi edition. London: 1868.

The Journal of Mental Science, July 1868.

LECTURES
ON THE
PRINCIPLES OF SURGICAL DIAGNOSIS:
ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

By F. LE GROS CLARK, F.R.C.S.,
Surgeon to St. Thomas's Hospital, and Examiner in Surgery in the University of London.

LECTURE I.—*Concluded.*

To return from this digression. The influence of a recognition of the principles to which I was referring is apparent equally in the diagnosis and treatment of disease: in diagnosis, by the enlarged view which is taken of all the particulars of the individual case, meting out a due value and proportion to each; and by comparison with others, similar in all or some of their features; but most conspicuously so in instances where no precedent for comparison exists, and where an opinion must be formed by the observation of remote analogies, from the history of the case, the hereditary tendencies of the patient, and a variety of incidental circumstances which have only an indirect bearing on the questions at issue. In surgical *treatment*, still more will simple general principles be found efficient guides in practice. But, whether in diagnosis or treatment, the accomplished surgeon brings to the task an accurate acquaintance with the structure and functions of the human frame, and, as far as our knowledge extends, a clear perception of the various relations of sympathy and vicarious action in different organs; so that he may read aright the pointing of the hands upon the dial, and know with confidence where and how to give assistance. But self-reliance is not the only attainment which familiarity in the treatment of disease brings with it. Trust in Nature's unaided efforts seems a simple lesson to learn; yet, I apprehend, there are few of my elder hearers who will not echo the remark, that it is only as years pass by that this apparently rudimental knowledge is acquired. The readiness to interfere yields only to the conviction which is gradually forced upon us, that it is safer and wiser in this respect to follow than to lead; more judicious to withhold interference until we see clearly the necessity for action, and then to act promptly and decidedly;—taking, in short, for our guidance, those principles which were so ably enforced and exemplified by yourself, Sir, when you fulfilled the duties of the office I now occupy.

It would serve to abate our exaggerated reliance on our own resources, and to enhance our faith in those of Nature, if we could more familiarise our minds with the true character of the phenomena which we are accustomed to regard and to treat as disease. These phenomena find their expression especially in the nervous and vascular systems; yet how rarely can they be interpreted as other than essentially curative in their nature. The excitement, both local and general, which attends the introduction of a poison into the system, and the train of symptoms which accompanies the eliminative effort, are so many steps in the direction of reparation; and such is likewise the case in severe mechanical injuries to the frame. The ulcer, slough, or abscess, are necessary preliminaries to, or accompaniments of, repair, though often destructive in their excess. And the surgeon who has been conversant with such cases will watch anxiously for the reaction which follows the shock of an injury or operation, and estimate thereby the reparative power of his patient. I shall have frequent opportunity, in the succeeding lectures, of illustrating this remark, and of showing that Nature's resentment of an injury is the measure of her ability and purpose to repair it; that the tranquil, unruffled state of the nervous and vascular systems is often a deceitful calm—the index of feeble power, the precursor of inaction, and the harbinger of death.

The intimate alliance which exists between the vascular and nervous systems, their interdependence and mutual reaction, are the sources of numberless complications, which, whilst they often perplex the scientific practitioner, are unintelligible to him who expects to find in the records of the past an exact rehearsal of the present. This remark applies with peculiar force to the class of injuries which I propose to consider. In many visceral lesions, the nervous and vascular systems are immediately implicated; in all, they are necessarily more or less involved; and the numberless sympathies which result demand both sagacity and patient research to unravel, and to refer them to their several sources. And it is often upon the just interpretation of the phenomena springing from these sympathies, that the correctness of the surgeon's opinions and the fitness of his treatment much depend. But the subject of diagnosis has a far wider basis than this. The etymology of the word implies breadth and penetration; and these are qualities which are especially required in studying the signs and symptoms by which diseases are distinguished and identified. This single word includes a moiety, and a large moiety, of scientific medicine and surgery. Even with it, much of medical practice is empirical; without it, medicine could have no claim to be classed as a science; and surgery could scarcely be said to have existence, except, as was the case in barbarous ages, as a blind and cruel handicraft, rarely benefiting those it pretended to relieve, but mutilating and sacrificing many at the shrine of its ignorance. Happily, the qualifications for surgical diagnosis are within the reach of all who have the opportunity of study, and bring an earnestness to their work; though it must be admitted that natural endowments are not without their influence in assisting their possessor to a rapid and precise judgment regarding the disease of which he may have to determine the character. Yet, as I just now remarked, I am disposed to regard the discernment, popularly attributed to sagacity or an intuitive perception of that which escapes common notice, as really the fruit of patient study and accurate observation, conducted by a well-balanced and educated intellect, of which the conscientious love of truth is a predominant characteristic. A bold and shrewd conjecture of the charlatan may be occasionally correct, and may dazzle the ignorant; whilst the many failures are kept out of sight, or accounted for by explanations or excuses which impose too readily on the uninitiated, who are singularly incompetent to appreciate the long and tedious process by which the scientific practitioner attains that tact and aptitude in the diagnosis of disease, which expresses itself with the modesty and misgiving often appropriate even in the most experienced—appropriate, because he knows, as others cannot imagine, how many sources of error surround him; how many accidental circumstances may influence a conclusion which, to the superficial inquirer, appears inevitable.

The special education of the senses—the agents in observing—has its import, in common with the calm and dispassionate consideration of the information they convey to the mind. Yet, with all the acquired preliminary knowledge which physiology and pathology supply, with all the penetration in observing, and all the delicate tact and distinguishing refinement of eye and ear, which experience alone can impart, the diagnosis of disease and injury is often rendered obscure and perplexing by some novel circumstance, or by some accidental peculiarity which taxes the sagacity of the surgeon to the utmost. The concurrence of two forms of injury in the same locality, such as a fracture and a dislocation; the distortion or unsymmetrical development of limb consequent on occupation or habit; the modified expression of disease dependent upon temperament or excess,—these are conditions which illustrate my remark, and which meet the surgeon at every turn in his daily practice. Again, deformity, or other consequence resulting from pre-existent disease or injury, often masks a present malady. These cases are so frequently brought under the observation of the hospital surgeon, that scarcely a week passes without examples being offered to his notice. But they are not therefore the less perplexing, especially as patients are often unwilling to admit a relation between circumstances which they cannot themselves appreciate; and thus, sometimes in ignorance, sometimes wilfully, they mislead the surgeon.

In other instances, a misapprehension of the true nature of the case may lead to an incorrect history being given; or, again, the history may be true, but perverted by some preconceived opinion transmitted to the surgeon. In illustration of this source of complexity, I may refer to necrosis of bone; not so much because it may mislead, as to exemplify, in a striking class of cases, the difficulties which are sometimes thrown in the way of diagnosis.

The history of necrosis from acute ostitis is generally intelligible enough; but the recognition of the original inflammation of the bone or periosteum would appear to be less simple, if we may judge by the frequency of its being overlooked, or rather masked, by the attendant symptoms. Exposure to cold and wet is a rife source of ostitis and periostitis, and so it is of rheumatism. Both are attended with suffering, more or less localised, and likewise with febrile disturbance. Hence, these cases of recognised necrosis are transmitted to us, sometimes as the sequel of rheumatism, at others as consequent on fever. Whereas, the acute suffering, not infrequently of the severest kind, and the corresponding constitutional or febrile disturbance, are both due to the inflammation of the bone or its investing membrane. Thus—to give one or two typical cases—a young sailor was hurt on the thigh, and this injury was followed by an attack of so-called rheumatic fever, and subsequently an abscess formed. When admitted into the hospital, the shaft of the femur was the subject of necrosis. A lad, after repeated exposure to cold and wet, was attacked with fever; the right knee and shoulder being, at the same time, much swelled and very painful. His medical attendant appears to have at first regarded this attack as rheumatic fever; but, the symptoms assuming a low type, he afterwards pronounced the fever to be typhus, and treated it accordingly. Ten days before I saw him, an abscess opened over the shoulder, and the upper extremity of the necrosed shaft of the humerus presented itself. I subsequently removed the entire shaft as a single sequestrum. These cases are typical of a large class which come to our hospitals for treatment. The apparent obscurity of their early history is not real to those who are conversant with this disease; yet the examples may serve as illustrative of the difficulty in diagnosis to which I referred.

But there are phases of resemblance, in the early stage especially, of diseases and injuries, which may defy the most discriminating diagnosis. Many such cases I shall have occasion to refer to in the ensuing lectures, such as early shock of the severer kind, without visceral lesion, and fatal injury to some important viscus.

In the later stage of some other complaints, where the history is obscure, it may prove impracticable to determine whether the preponderance of symptoms lean to the interpretation in favour of one or other of two diseases, essentially dissimilar in their nature as well as in their origin and development; such, for example, as tumours of various kinds, not excluding aneurism, and especially within the large visceral cavities. A striking illustration in point, and unique in my experience, occurred in a private case which I saw in company with a member of the Council of this College. The patient was the subject of a large tumour occupying the popliteal space, and bulging its lateral walls. This tumour was tense in some parts, soft in others, the skin being thin in many places, and the surface generally somewhat elastic. A distinct thrill was audible in the swelling, as of an artery pressed upon; but there was no variation in size when the femoral was compressed, no distinct pulsation nor expansive enlargement at each systole of the ventricle. The patient suffered considerably; he was emaciated, and his health was greatly deteriorated. The history of the case unfortunately threw but little light on the probable nature of the disease; and the question presented itself as to whether we had to deal with an aneurism or with the encephaloid form of cancer. The preponderance of evidence seemed to be in favour of the latter; and, with the doubt still resting on our minds, we thought the safest course was to recommend amputation. The patient returned to the country, where this operation was performed, and the limb was subsequently forwarded to me. On the morning of the amputation, the operator remarked that there was no pulsation, although the tumour then fluctuated. The disease proved to be aneurism, extending from the upper part of the popliteal artery down to its division; the sac was partially formed of arterial wall, which appeared to have given way in several places, causing extravasation among the muscles to a limited extent, the greater part of the sac, however, being bounded by a membrane, apparently adventitious, and in some places exceedingly thin. The sac was very large, and contained much soft, dark coagulum.

Negative evidence is often of the utmost importance in surgical diagnosis, where the positive symptoms, from their obscurity and the hidden or inaccessible locality of the disease or injury, evade the search of the surgeon. This is remarkably the case in visceral lesions, especially of the head and abdomen. In fact, the treatment of such cases is often determined by the absence of symptoms which, from many existing features, might have been expected to be present. I shall have the opportunity of exemplifying my meaning by reference to cases of injury of the skull, where the external mechanical lesion is unaccompanied by the usual cerebral symptoms; and, if the time permit, by instances of those obscure affections of the abdominal viscera, in which the cause of obstinate and protracted constipation is a subject of speculation, on which the life of the patient may hang.

Diagnosis is rarely a matter of simple curiosity, but is usually of vital importance to the patient; and especially so where the alternative of operative interference has to be entertained. Even when the question, in the abstract, of the propriety of operating admits of none but a positive solution, there are many subsidiary considerations which press themselves on the attention of the reflecting surgeon, apart from the details of the operation itself. He is bound to weigh these considerations carefully, without, however, allowing them to exercise an undue influence on the main question before him. The conditions which demand or forbid an operation must be determined by the general state of the patient, as well as by circumstances of a purely topical nature.

Among the general considerations are—the constitutional contamination or origin of the disease; the temperament and habits of the patient; the soundness of important organs; the existing condition as regards the effects of shock and loss of blood, and the prospective risks attending these and profuse and protracted suppuration, as consequences of operating. The chief topical considerations are—the reasonable hope held out of removing the disease, or of affording compensating relief; and the amount of mutilation which may be entailed. These appear to me the various circumstances associated with diagnosis, where an operation is contemplated; and I need not add how much the success of any operation depends on the period selected for its performance, and the previous preparation and subsequent treatment of the patient. There are other adventitious and extraneous circumstances, which must not be overlooked where they present themselves. I refer to atmospheric variations, and epidemic and endemic influences which may happen to prevail. On some of the more important of these points, I shall offer some observations in my next lecture, when discussing the subject of Symptomatology.

But I cannot dismiss this allusion to operative surgery without remarking on the disparagement and commendation to which this branch of our art has been subjected—often unjustly so, as I venture to think—by both its detractors and eulogists, from a misapprehension of the true relation of manipulative skill to surgical science. The claims of surgery to be regarded as a science, and the privileges of its professors, have grown, as the *chirurgery* has assumed its proper position, in subservience to those higher attainments which characterise the educated surgeon. I would not undervalue the clever performance of operations; for such success implies the possession of acquirements which do not meet the eye; and manual dexterity is an essential qualification in him whose business it is not only to decide what should be done, but also to do it. Yet, although the mere facility of execution is, after all, only a question of mechanical dexterity, it is often regarded by the thoughtless with an admiration which is as exaggerated in degree as it is humiliating to the operator. No surgeon worthy of the name would, I apprehend, now covet to be described as "audax in periculis, animo immisericors"; yet such characteristics are implied by the language in which operative feats are sometimes described even in the present day. The merit of a well conducted operation consists less in its rapid and skilful performance than in its fitness and the care with which it is planned; the arrangement of each step with anxious forethought, and the anticipation of obstacles and preparations to meet them, demand qualifications which test the resources of the surgeon; and the success of an operation depends at least as much on the possession of these qualifications as on the exercise of manipulative skill. There is this peculiarity in surgery, as compared with other professions in which science and art are combined, that the mind which plans and the hand which executes belong to the same individual. The soldier, the architect, the civil or military engineer, frame plans which others have to carry into effect; yet the credit of the execution is justly theirs, for often the actual agents are ignorant of all but the details in which they are engaged. I think there is sufficient similarity in my illustrations to justify the parallel; and, though I am aware that the mechanical skill exhibited in bricklaying is not very exalted, yet, in some of the higher branches of manual engineering, the ability to execute well is acquired only by long apprenticeship, patient toil, and a competent knowledge of mechanics.

In the few general remarks which I have made respecting the determination of the nature and the site of surgical disease, I must not omit to notice an attribute, without the possession of which the most accomplished pathologist may find himself at fault in the presence of his patient. Precision in diagnosis does not depend so much on the analysis of minute details and on the detection of every trifling symptom, as on sagacity in eliminating all that is unimportant, and ability in selecting and giving due prominence to the salient points of a case. Success in practice probably depends as much on the development of this faculty as on any other single cause. In some individuals of great acquirements, their very store of learning becomes an incumbrance from want of tact in using it. Even pondering over the details of an anxious case long and wearily, often unfits the surgeon for giving a lucid and independent opinion, where his diagnosis would be clear and explicit if he came fresh to the subject. He has approached, so to speak, too close to his patient, and the perspective of the picture, which the symptoms in the aggregate present, is defective. In such instances the value of a second opinion is obvious. Irregular practitioners—charlatans—are well aware of the value of selecting some conspicuous feature in a disease, and of professing to direct their treatment towards its removal. But, generally speaking, either in ignorance or from wilful concealment, the true nature of the disease is veiled, and the patient's attention is, in like manner, diverted from the really efficacious part of the treatment, and fixed upon some so-called specific, which is, at best innocuous; and it is well for him if it be not mischievous; perhaps, fatally so. As in medicine, for example, diseased lungs are thus treated, so, in surgery, are diseased joints; beside numberless other ailments which flesh is heir to.

The peculiar qualifications to which I have alluded, as necessary for prompt and sound diagnosis, are exemplified in other engagements in life; and the failure to fulfil them satisfactorily is dependent on the same mental peculiarities, exaggerated by training. I remember being much struck with an instance of this, narrated in the biography of Laplace. The Emperor Napoleon, when First Consul, was anxious to show his

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high esteem for the philosopher, and his appreciation of science, in which he was himself no superficial student, and appointed Laplace to an important post among his ministers; but he soon discovered his mistake. The man of abstract science—the profound mathematician—was found entirely incompetent, not from want of knowledge, but from an excess of accuracy which compelled him to investigate personally every subject which came under his notice, with such minuteness as to arrest the progress of business, and to blind him to the relative importance of various points submitted for his judgment,—defects which ill suited the practical and impatient temper of his imperious master. He was soon suspended; and the commentary of his patron was, that "Laplace, though a mathematician of the highest rank, looked at no question in its true point of view. He was always searching after subtleties; all his ideas were problems, and he carried the spirit of the infinitesimal calculus into the management of business."

I fear it will be thought that I have been tedious and desultory in these introductory observations, and that I have dealt in trite platitudes which have but little direct relation to the immediate subject of these lectures. It may be so; yet I wished to say these things, and I trust that I have not misapprehended the purpose of the founders of this professorship, nor presumed upon the liberty which my position confers, in supposing that it is neither inconsistent nor irrelevant that I should avail myself of this public opportunity, to give expression to my opinion on questions which I consider to be of vital interest, not only in the cultivation of surgical diagnosis, but in the influence they exercise on the progress of surgery as a science.

In medicine, empiricism has its justification in necessity; but, in surgery, it is without such apology, and degenerates from its original and worthy meaning to that popular and degraded interpretation which modern conventionalism has applied to it. Empirical surgery is a paradox, or, if be not so, it is an imposture. I do not mean to affirm that experiment in surgical practice is never to be justified; but he who undertakes so serious an experiment as an operation, without a reasonable belief that benefit will result to his patient, and without a careful consideration and rational explanation of the grounds of that belief, assumes a responsibility which ignorance and temerity may explain, but cannot excuse.

It is true that the successful cultivation of surgery demands not only careful and patient observation, but independence of thought tempered by cautious reflection. Without this qualification self-reliance becomes rashness, and ceases to be that resource which it should be to the surgeon in diagnosis, as it is his unfailing stay in action. Such, at least, Sir, is the lesson I have been taught; or, to speak more correctly, the model which has been set before me by the great masters of our art, from whom it has been my privilege to learn; and by him in particular whose name I have already mentioned incidentally in this lecture as my own honoured master. Mr. Travers is above any eulogy to which I can give expression; but I may be excused for offering this passing tribute of respect to one for whose memory I retain an affectionate reverence, and whose philosophic mind must leave its lasting impress on our profession.

In an eminent degree did John Hunter strive, by his example, to give a scientific tone to surgery. *This* was the great object for which ie lived; *this*, the great result of his laborious life. He condescended o every detail; he accumulated his materials, shaped them, and put hem together; and thus reared an edifice, which is not only an impeishable memorial of the genius of the builder, but an enduring protest gainst an impatient thirst for fame, and the use of illegitimate means n the effort to secure it.

SUPPURATION IN THE CORNEA.—M. Hoffmann of Berlin, after utting away the cornea with a knife dipped in a solution of lunar austic, and keeping this membrane in aqueous humour at an elevated nd equable temperature, found that the stellated cells along the divided arts remained unchanged, but that masses of new round and long celular forms were scattered throughout the whole of the corneal tissue. n the course of from twelve to twenty-four hours these newly formed ells were observed to change their form and position, and to throw off articles which ran together. A piece of cornea irritated by lunar austic was then placed in blood, and it was observed that the stellate ells remained unchanged in form, and took no part in the suppuration. I. Hoffmann finally irritated the cornea of a live frog, and injected innabar into one of the upper lymph-sacs; within four days, a circle f cinnabar was plainly seen with the naked eye around the inflamed ornea. It was found, on closer examination, that the cinnabar had een taken up by the white corpuscles of the blood, and also by the ewly formed cells (pus-cells) in the inflamed corneal tissue, whilst in e stellate cells of the cornea no particles of the pigment could be learly made out.—*Virchow's Archiv*, xlii. 1868.

ON THE THERAPEUTICAL ACTION OF DIGITALIS.*

By EDWARD MACKEY, M.B.Lond.,
Joint Professor of Materia Medica in Queen's College, Birmingham, etc.

IN connexion with the preceding and subsequent observations, it is desirable to notice an interesting theory that has been advanced to explain the action of digitalis; viz., that it acts primarily on the sympathetic (vaso-motor) system of nerves; that it stimulates the said system, and so causes increase in the contractile power of the capillary vessels. The theory has been well put lately by Legroux (*Du Digitale*, Paris, 1867), and supported by reasoning somewhat as follows.

1. M. Galan has *proved* (Thesis, 1862) that digitalis, administered to frogs, will cause contraction of the capillaries of the web.

2. M. Legroux has *seen* the subcutaneous injection of digitaline (one *centigramme*) cause long continued contraction of the central artery of a rabbit's ear.

3. In certain conditions wherein the sympathetic is paralysed (partially), digitalis will act as known stimuli to it will. I will consider this point more in detail.

What are the effects of paralysis of a sympathetic branch? If it be complete, as after division of the nerve, there will be dilatation of the capillaries of the part supplied by it, increase of heat, congestion, perhaps effusion, etc. If it be partial—that is, if the nerve be doing duty in a feeble manner, as in patients suffering from fever, from debility after hæmorrhage, or from chronic illness—there will occur similar accidents, though in a less degree; the normal balance of circulation will be interfered with; the heat of the body will be increased; the secretions will be altered; there will be partial congestion, as in the extremities; the vessels will be relaxed; arterial tension will be diminished; and the heart's action will be feeble, rapid, and irregular.

Now these effects may be controlled, and even obviated for a time, by a stimulus applied to the same system. Galvanising the distal end of the divided nerve will re-establish normal circulation; and a powerful emotion *may* re-establish apparent health for an hour or two in a feeble invalid. Now, taking the condition of the capillaries to indicate the state of the sympathetic—their relaxation to indicate a partially paralysed, and their contraction a tonic state of it—it is to be proved that digitalis has power to induce the latter.

In the first place, says M. Legroux, it will, when given to persons in feeble health, *increase* arterial tension, as proved by sphygmographic trace (*op. cit.* p. 46): therefore it must increase the contractile power of the capillaries, the principal indicators and rulers of the said tension.

In the second place, it will lower the temperature of the person taking it, sometimes even *before* the heart action be slowed (Wunderlich and others, quoted at p. 70): therefore its primary effect is not on the heart, but on the capillaries; and it is to contract them.

In the third place, it will diminish the frequency of the heart-beats, and yet it will, in equal proportion, increase arterial tension (Marey); we conclude, then, that the heart is not weakened, but is slowed secondarily to the contraction of the caplllaries. This slowing does not occur till twelve, twenty-four, thirty-six hours after administration of a moderate dose; moreover, it is often preceded by a quickening. This latter fact is to be explained as a consequence of increased effort required to overcome the resistance of the narrowed capillaries to which the heart was not accus[illegible]ned (*sic*).

In the fourth p[illegible] it will relieve local congestion; and of this clinical experience [illegible]ive us proofs. It has been of service in pneumonia (Lissauer, Th[illegible]s, Berlin, 1856); in uterine and pulmonary hæmorrhage; and markedly in hæmorrhoids. This last disorder is a good instance in point, because cure may be produced withont notable effect on the heart; and, as this is not generally known, I will insert here a few cases kindly forwarded to me by Mr. Duncalfe, who drew attention to this subject in 1859.

CASE IX. April 1859.—T. W., aged 45, had drank freely, but not lately. He had had piles occasionally for many years, more persistently for the last two. With each motion now he passed a little blood and much mucus. On examination, no external pile was found. The sphincter, when pressed upon firmly, gave the sensation of a hard swelling underneath. On straining, there was protruded a dark bluish pile, which was painful to the touch. The sphincter was firmly contracted, and admitted the finger with some difficulty and with much pain. Two or three painful protrusions were felt within the rectum; and much heavy throbbing pain was felt after withdrawing the finger. He was ordered tincture of digitalis, in ten-drop doses, every three hours during the day. After two days' trial, he said "he had not had so much ease for months." The sphincter was less irritable. There was some mucus, but no blood. He was ordered to take one teaspoonful of castor-oil in milk every morning, and to continue the digitalis. Five days after the first administration, "passes no blood, no mucus, and is free from pain." Since the report, he has been under treatment on three separate occasions for piles—the result, no doubt, of irregular living. Relief and cure have, on each occasion, followed the use of digitalis.

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* Concluded from page 529 of last volume.

Case x. June 1859.—N. S., aged 40, stout, plethoric, had had piles for several months. He had taken different remedies, without more than temporary relief. He passed very large quantities of blood after each evacuation, and suffered much from tenesmus and pain up the sacrum. Externally, three piles, one of the size of a horsebean, and two about as large as peas, were observed. The sphincter was firmly contracted. The piles were returned within the rectum, but gave rise to much pain and desire to defæcate. Fifteen-drop doses of tincture of digitalis were ordered to be taken every three hours. On the second day after taking the medicine, he had no more bleeding, no pain; said he was well. He continued the medicine in smaller doses for two or three days, and, at the end of a fortnight, had had no return. Three months afterwards, he had signs of relapse after hard lifting. He immediately applied for his medicine, which was given to him; and he was not troubled afterwards.

Case xi. 1867.—E. C., aged 48, a strong man, accustomed to walk much, had had piles for years. He had them tied once. The sphincter was loose, easily yielding to the protrusion of large congested piles. He lost blood with each motion. He could scarcely take exercise, owing to the faintness produced by dragging pains. His health had been failing lately. The skin was loose and perspiring; the complexion haggard; tongue pale and tremulous. He was ordered fifteen minims of tincture of perchloride of iron, with ten minims of tincture of digitalis, every four hours. When the medicine had been continued for a week, he was better, and could walk longer without the piles coming down. After continuing the medicine for three weeks, he could walk without inconvenience for five or six miles. His health, however, was much below his standard. He went to the seaside, and returned home well. He had had no inconvenience from piles since he left home.

Case xii. 1863.—A. F., mother of seven children, had been subject to piles during gestation and after delivery of her last three children. Previous treatment never relieved her. One week after her last delivery, she was found to have a large protrusion of piles and mucous membrane external to the sphincter, tender, and producing much uneasiness. Digitalis was given in fifteen-drop doses, combined with five grains of extract of henbane. The bowels were relieved by enemata. In two days, the piles could be returned within the sphincter, and protruded only after defæcation. The treatment was continued for a week, and then the tumours were less vascular and smaller, scarcely tender, and could be readily returned without pain. There was, however, much redundant mucous membrane; and the piles were touched with the strong nitric acid, with the usual precautions. In three weeks' time she was well. She has since borne another child, and the piles were not so bad as to require treatment. I ought to add to these cases, that I have myself found some good effect from its use in hæmorrhoid, but not much in cases with marked constitutional disorder, hepatic or otherwise.

To return: As other illustrations of the value of digitalis in local congestions, we may fairly cite cured or relieved cases of epilepsy (Corrigan, quoted by Osborn, *Dublin Quarterly Journal of Medical Science*, 1856); of delirium tremens (Jones, *Med. Times and Gazette*, Sept. 1860); of mania and general paresis (Robertson, British Medical Journal, October 1863).

The most rational pathology of the idiopathic form of the first named disease is the congestion of the capillaries in the neighbourhood of the medulla oblongata. In the second named, though the pathology be dubious, all will agree that the condition of vessels in the brain, as elsewhere, is one of exhaustion—of relaxation. In the third named, modern research points specially to morbid conditions of the capillaries, the "miliary aneurisms" of Bouchard, or the "varices" described by Sankey (*Journal of Mental Science*, Jan. 1864). It follows, then, that, in all the above mentioned diseases, we may trace the beneficial effect of digitalis to its *regulating and equalising the capillary circulation.* A similar action well explains its value in ascites; and, when the venous circulation becomes less embarrassed, effused serum is re-absorbed, and so into the blood is taken an excess of fluid, of which the system relieves itself by a profuse diuresis.*

Finally, its remedial value in cardiac disease may be traced sometimes to its diuretic action, explained as above; and sometimes to its steadying and strengthening the peripheral circulation, without any marked excretory action.

Considering all the previous observations as illustrating the theory to which I have alluded, it is evidently interesting, as another instance of the application of the idea now assuming, and very justly, such prominence in therapeutical inquiry; viz., the action of medicines on the sympathetic system.† But I think we must consider the said theory as only partially true. The experiments quoted from M. Galan do not prove much, because the contraction of the capillaries was subsequent to, or at most simultaneous with, the slowing of the heart. The experiment of M. Legroux was a single one. Moreover, the quickening of the pulse which often precedes the slowing is not explained satisfactorily by this theory; neither is the fact of the drug injuring some cases of aortic disease; nor can I substantiate its principal arguments by experiments made according to the following principles. The theory necessarily implies that arterial tension is increased by digitalis; and Legroux publishes, with the sanction of M. Siredey, a sphygmographic trace to *prove* increased tension; but I believe I am warranted in saying that the said trace may be got from any radial artery by a certain pressure of the spring. Again, if the said trace represent the arterial condition after digitalis has been taken for some days, there ought early to follow a similar condition, less only in degree. So many circumstances contribute to alter a pulse-trace, that I could draw no conclusion from one taken many days after a medicine was commenced, where the patient moved, and ate, and slept, under varying conditions; but I considered that I could fairly test the assertion that digitalis increases arterial tension by comparing the pulse-trace taken before and after a dose of the drug, whilst the patient remained still, with the sphygmograph unmoved and the pressure equal.

This experiment I carried out, with the kind cooperation of Dr. Foster and the assistance of Dr. Sawyer. We administered two drachms of the fresh infusion, to persons in average health, on an empty stomach, and we took tracings every five or ten minutes afterwards for the space of an hour or an hour and a half. There were quick and interesting changes in the pulse-trace; but all that I need specially record is, that in four out of five cases the pulse rose, and the arterial tension was *diminished*, as shown by the higher upstroke, which at times had a break in it, more sudden descent, with obliteration of secondary curves and greater dicrotism. In the exceptional case, the patient was very "nervous"; his pulse was 120 before his dose, and 92 one hour after; and his tracings *did* show signs of increased tension.

It will be remembered that Winogradoff's experiments tended to prove that digitalis did not alter the blood-pressure in the arteries, whereas Traube's showed a variable result (Sydenham Society's *Year-Book* for 1862).‡

From all this I conclude that, although the idea that digitalis acts through the sympathetic system by contracting the capillaries has several arguments in its favour, and well explains certain of its therapeutical actions, yet it is not the whole truth. A varying amount of direct action upon the heart must be allowed (Conf. Experiments of Fagge and Stevenson, *Guy's Hospital Reports*, 1866). This direct action seems under certain conditions to strengthen the heart's energy, under certain others to weaken it, although the dose of the drug be alike under both. If we compare the cases of disease narrated in my first paper with the cases of health just alluded to, it really seems as if the medicine toned a feeble heart, and yet lessened tone of healthy one.§ An explanation of this apparent contradiction may be founded upon Traube's experiments (Schmidt's *Jahrb.*, cxiv, p. 182), to the effect that digitalis acts on both the regulating and the motor nerves of the heart; and that, if the motor be more stimulated than the regulating, the heart's action will be strengthened, and *vice versâ*; or upon Lister's experiments, quoted by Dr. H. Jones; or upon Dr. Reith's "double action of medicines"—with most satisfaction, I think, upon the latter. But to discuss this would lead me into wide regions. Suffice it that I have pointed out, from clinical experience, what cases may be benefited by the drug; any others illustrating its action will always be received by me with thanks and acknowledgments.

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* A similar action may explain the diuretic powers of many so-called "sedatives"; and in some cases, perhaps that of belladonna, described by Dr. J. Harley as a stimulant to the sympathetic system, much as digitalis is in the text.

† See especially Dr. H. Jones's writings, and suggestive essays by Dr. Reith, in the *Edinburgh Medical Journal*, February and April, 1868.

‡ I have to thank Dr. H. Jones for his kind correspondence on this subject.

§ Since this was written, I have found the same apparent paradox stated by Dr. H. Jones (British Medical Journal, December 1859). This fact, if it be one, will, of course, explain the discrepancy between our tracings (taken in health) and those of M. Siredey (taken in disease), granting the latter to prove increased tension.

WHAT ARE DISEASES?

By C. HANDFIELD JONES, M.B., F.R.C.P., F.R.S.,
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WHAT are Diseases? It might seem easy to answer the question by a simple reference to the list furnished us by the Registrar-General. On inspecting this, however, we soon become aware that often one name covers a number of very diverse conditions (as, for instance, metria, dyspepsia, nephria, cephalœa, vertigo); and, besides this, often a name merely implies the presence of some prominent symptom, which may exist equally marked in several different states, *e. g.*, paralysis, icterus, hæmaturia. It is quite evident that the terms which figure in nosologies are really little more than convenient *façons de parler*, and can claim very little scientific precision. Such terms we must have, but then we must be very careful that we do not imagine them to possess an accuracy which really does not belong to them.

If we ask the above question of each other as men whose serious business is the relief or cure of suffering, we want other information than can be afforded us by a set of names. We want to know whether the signs of distress and disorder which arrest our attention, or which we discover on search, can be trusted to direct our minds into such an intelligent comprehension of the morbid process going on as shall enable us to take the best measures practicable for its relief. We want to know whether similarity of phenomena perceptible to the senses implies necessarily similarity of productive action. These queries are put not in any spirit of curious speculation; they lie at the very root of all attempts to give *real* accuracy to the diagnosis and treatment of disease. That surely cannot be esteemed a sufficient diagnosis which concerns itself only with the surface-phenomena, and omits altogether to take account of the more recondite, but more essential particulars. It does not require a conjuror to diagnose bronchitis, but it may demand some careful inquiry to ascertain the *quality* of the bronchitis, whether sthenic, or asthenic, whether gouty, syphilitic, neurotic (Trousseau), or simple; and on the determination of these, and such like points, the (to my patient) all important question of treatment depends. So with regard to many other classical diseases. Anxious as I have been, and am still, to have inquiries instituted to ascertain the best methods of employing remedies for the relief and removal of sickness, I cannot but see that, unless it be determined beforehand with something like accuracy what are the particular conditions in which a given remedy is to be administered, the conclusions arrived at will not be available for the guidance of others. The chemist can direct a solution of a certain substance to be taken and treated in a certain way, and can assure experimenters confidently that if they observe his directions certain results will invariably follow. But no physician can guarantee to another that he will obtain the same results as he has himself if he follows the same procedure in dealing with an *apparently* quite similar disease. Even conceding that the morbific causes are identical, it is almost a matter of certainty that the recipient systems are not. Two solutions of the same salt can easily be made exactly and completely the same; where shall we find two human bodies so precisely the pattern of each other? This is the great obstacle to medicine ever becoming an exact science.

Of course I do not mean to deny that, in a great many instances, satisfactory directions can be given for dealing with various forms of morbid action, especially in the same localities and periods of time; but I do wish to protest against the notion, always too easily admitted, that it can be right to speak of the treatment of a disease defined by a mere name and no more.

Let me illustrate what I have advanced by appealing to clinical experience. Erysipelas is a disease most easy of recognition; it is defined in the nomenclature adopted by the College of Physicians as an inflammation of the integument tending to spread indefinitely. Will it be sufficient for a therapeutical committee to proceed with no other datum than this to consider what remedies ought to be administered? I believe not. Various particulars have to be taken into account, which all experienced practitioners have regard to: as the state of the nervous system, and of the circulation, the constitution, general health, habits, residence, and possible idiosyncrasy of the patient, as well as the character of the epidemic, should there be any. While, in the wards of St. Mary's, I have been treating my erysipelatous patients with brandy and bark and ammonia, intelligent house-surgeons have told me that their fathers practising in rural districts found it necessary to bleed or purge their patients before giving them any tonics. Sir Thomas Watson writes: "I really believe that in the purer air of the country, and in young, strong, vigorous country persons, bleeding may be proper and requisite. You will find country practitioners pretty well agreed on this point." Graves's testimony is very decided. "Erysipelas should not be treated from its name—it is a disease capable of exhibiting a great variety of forms, amenable to no fixed line of treatment." He has seen many instances in which erysipelas appeared in a distinct and well-marked inflammatory form, and has found venesection, leeching, purgatives and tartar emetic, admirably well fitted to remove the disease. But in others wine, opium, and sulphate of quinine, were the only remedies which could be relied on, and no one in his senses would think of using general or local depletion, purgatives, or tartar emetic (v, 575). Dr. Copland writes quite to the same effect. The disease may require "from the very commencement most varied and even opposite modes of cure;" and "frequently also demands an almost equal diversity at different stages of its progress." Where tonics are evidently advisable, it is by no means a settled matter whether the free administration of tincture of perchloride of iron is more desirable, or bark and ammonia. The latter remedies seem to me most appropriate to states of great prostration with marked tendency to death by asthenia, the former to those where there is more reaction and vital tone. Clearly both are not equally proper in the same cases.

Acute rheumatism is another disease most facile of diagnosis. Is it sufficient to name the disease to know its treatment in each case, even with the aid of a definition? Most emphatically I demur to the affirmative. I have no sort of doubt that different cases do require very different kinds of treatment. Quinine is beneficial in some, alkalies in others. The same is true of gout. Dr. Garrod writes: "Although a plan can be sketched out which is applicable to the majority of cases of gout, still each individual case not only exhibits its own peculiarities, and becomes a separate study, but likewise demands, in certain respects, a separate treatment. The neglect of this consideration is apt to lead to a mere routine practice, closely bordering on empiricism." Dr. Gairdner writes in the same strain: "When the minute features of gout are examined, they are found as various as the individuals whom it assails. Again, when called to see a case of gout, three great considerations must take precedence of all others—the age of the patient, his constitution, and the period of the disease. These important circumstances control all our treatment. To use remedies in the indiscriminate manner recommended by Sutton and others cannot fail to expose us, sooner or later, to sad accidents and reverses."

Eczema, again—acute eczema—is very easily named; but, when this is done, we have not thereby attained certainly to know the correct treatment; cases outwardly alike may need to be dealt with very differently, salines and aperients curing one, full doses of arsenic another. The same may be said of psoriasis. *Dysentery* presents no difficulty in diagnosis, but convinced, as I am, of the value of the ipecacuan treatment in many cases, I am not ignorant that in China the free use of mercury has proved more successful, nor that Trousseau affirms, as the result of his experience, that "plus spécialement les sels neutres administrés à dose purgative . . . . . est donc la méthode curative par excellence de la dysenteric." I cannot think it a matter of indifference whether the dysentery be of the bilious, inflammatory, hæmorrhagic, or rheumatismal kind. Sir R. Martin says "that the most cursory view of the special pathology and associations of dysentery ought to satisfy the medical officer that no one exclusive mode of treating a disease so complicated in its nature can be rational in itself, or successful in its results." He quotes Sir James McGrigor's statement, "that he became convinced in Alexandria that, with change of country and climate, we had a different disease. This is one proof how improper and unsafe it is for the practitioner of one climate to set down and describe the diseases of another. . . . . In many of the symptoms diseases may agree, but from thence to infer their identity, is taking a very narrow view." *Croup*, I more than suspect, requires a different management in rural and urban districts. In the latter bleeding, except by a leech or two, is rarely advisable, and calomel ought, I think, scarcely to be given unless in peculiar instances; in the former, there seems much evidence that both may be used with very good effect. Dr. Cotton's experience in the treatment of phthisis with different drugs leads him to anticipate that it will be shown that under certain, at present, obscure conditions of the system, phthisis assumes definite and special forms, each of which requires definite and special management. With regard to *delirium tremens*, I feel well assured that no general agreement will ever be come to respecting its treatment, so long as we make no distinction between the very various conditions to which the term is applied. Full opiates, frequent dosing with tartar emetic, purgatives, and occasionally digitalis in large doses, may (singly employed) all do good service in different instances which agree in respect of the causation and aspect of the delirium, though under this apparent similarity they mask real differences.

I might go on to mention many other maladies to which similar remarks would apply, but I will conclude this part of my subject by referring to an excellent clinical lecture by Dr. Sieveking (*vide* BRITISH MEDICAL JOURNAL, February 22, 1868), in which he maintains "that at one and the same time, we meet with cases of pneumonia that differ very materially in type, and therefore demand very varying treatment." He holds (and so do I) "that pneumonia varies very much in its intimate nature, although presenting physical signs that closely resemble one another in the different cases."

It will aid us to answer our question better if we think over, in a general way, the causes of disease. These are either material poisons originating external to the system, or developed within it, or traumatic influences, such as heat, cold, mental or bodily shock, etc., on the one hand, or simple decay or perversion of the natural forces of the body on the other. Fevers and inflammations are the main results of the operation of the former; degenerations, ulcers, and morbid growths as cancers, of the latter set of causes. In both, failure of vital power is essential to the occurrence of morbid action; in the second group it is, or seems, to be almost everything; in the first, it permits the active cause to take effect. The existence of such a conservative power or energy, call it what we will, is a fact, and it is undeniable that it is much stronger in some persons than in others, and also in one organ or tissue, than in another, so that one part may suffer greatly from exposure to injury, and another much less. Moreover, it is matter of observation that where this resisting power is over-borne and disease set up, recovery ensues much more quickly in some persons than in others. In some, the perturbing influence is no sooner removed than the system springs back, as it were, at once to health; in others, the return is slow, halting, and often incomplete. Now, this being so, even if we admit the causes of disease always to be the same, and to act with the same energy, which is more than doubtful, how can the results be constant. Must they not vary greatly in duration as well as in other respects?

The above considerations disincline me to believe that results of value will be obtained by observing the so-called natural course of disease left to itself. Where this is tolerably definite, it is sufficiently apparent as in the case of the exanthemata; and where it is not readily discernible, I think the variations will be found so great that we can feel no certainty as to the course in individual instances.

The answer then, which I return to my question is, that diseases are perturbations of the normal functions, liable to vary so greatly in many important points that we need to be very careful in laying down rules for their treatment generically; that one instance of disease often resembles more truly another which bears a different name than it does one of the same designation; that the safest proceeding always is to consider the features of each individual case, to note what kind of morbid action predominates, and from what quarter peril is to be apprehended; and that this caution is especially requisite when we apply the experience of one place or period to the diseases of another. Custom and convenience are, however, so strong, that I suppose to the end of the chapter we shall talk about the treatment of this disease or that, tacitly ignoring that which has been admitted again and again that, for the most part, they are inconstant and varying processes, and thereby often falling into error.

CASE OF INSANITY DEPENDING ON SYPHILITIC INFECTION.

By WILLIAM SMITH, Esq., Surgeon, Clifton;
Fellow of the Royal Medical and Chirurgical Society of England.

I THINK it admits of very little doubt that tubercular disease is frequently connected with insanity. Marsh miasm produces a peculiar mental depression; and, in pellagra, the mind and nervous system are frequently affected. In almost every form of blood-infection, there is more or less disturbance of the mental functions. It may be interesting to give a case in which I believe this was due to constitutional syphilis.

A young professional man was attacked with acute mania of several weeks' duration. The case was marked by febrile symptoms, active delirium, and tendency to violence. When this stage had passed over, the patient fell into a condition of profound melancholy and listlessness. It was at this period that the case came under my notice. There was apparently a settled determination not to speak. An answer in monosyllables might sometimes, indeed, be obtained with difficulty. There was certainly partial inability, and, with it, complete disinclination for any employment. He might be induced by great persuasiod to write a few lines to friends; but, although tolerably well educated, in this condition he made many mistakes in most common matters. On one occasion, he repeated in his letter indelicate and offensive expressions. Although neither homicidal nor suicidal, he was sullen, and sometimes menacing in his looks and manners. The appetite and sleep were good, but the bowels were obstinately constipated. Various measures were employed, with very little, if any, success; and, at the end of three months, I began to fear my patient would pass into a condition of hopeless dementia. My attention was at this period called to a rash, principally on his chest and abdomen, but to some extent over the whole body. It was evidently syphilitic roseola; and with it were associated several large brown maculæ, the form which so often accompanies the squamous syphilide. I at once placed the patient under appropriate treatment. Iodide of potassium, gradually increased from five to ten grains, was given three times daily; and a mild mercurial was combined with it. In about a fortnight the symptoms were ameliorated; and at the end of a month he was so much improved as to converse rationally, although apparently with effort. Perfect recovery has resulted. The patient called on me a few days since. He denies having had syphilis, but pleads guilty to having suffered from "a simple chancre". This occurred about three months before the attack of insanity, and was treated empirically.

Griesenger, in his excellent work on mental diseases, says: "Constitutional syphilis does not readily lead to insanity otherwise than through palpable diseases of nutrition of the skull, of the brain, and of its membranes." This is, no doubt, true to a great extent; but I think that most medical men have seen cases in which there were no "palpable lesions", and yet mental deterioration, approaching, if not completely passing into, insanity, has been the result. Jackson, in his work on *Syphilis of Internal Organs*, acknowledges that, in cerebral syphilis, the brain-lesions are sometimes very slight; and, he adds, "some authors have failed to detect any." He says there is nothing peculiar in the symptoms of syphilitic cerebral disease.

From many cases in my own individual experience, I am inclined to believe that the blood-disease may and does produce a train of mental phenomena bearing no relation to any individual lesion. The converse is easily proved. All of us have seen cases of local syphilitic disease of the skull, brain and its membranes, with perfect integrity of the mental faculties.

CLINICAL MEMORANDA.

BROW-AGUE CHANGED INTO AN AGUISH ATTACK UNDER THE ADMINISTRATION OF QUININE.

By STANLEY L. HAYNES, M.D., Medical Superintendent of Laverstock House Asylum, near Salisbury.

I BELIEVE the following case will be deemed interesting, from the conversion of hemicrania into an anomalous aguish attack.

F. H., aged 32, an attendant here, complained in February last of pain over the right eye and the anterior half of the temporal region, which was puffy to the sight and touch, and tender on pressure. This pain was continuous, but subject to exacerbations, especially at night, and was much increased by stooping, when giddiness and dimness of vision were added; it had been felt on waking a few mornings before, and was not preceded by any irregularity of health or accompanied by any other change. There was not any strabismus. He gave the following history. After enlisting in 1854, he went with his regiment to India in 1857. In 1861 he was insensible during seven weeks in consequence of sun-stroke, and resultant "slight brain-fever." From 1862 to 1864 he suffered seven or eight times from "liver and fever" (by *fever* he means ague), some attacks lasting a month or so, and one having a duration of five months. He was treated with quinine, which arrested the attacks. They began always between 10 and 11 A.M., and ended between 3 and 4 P.M., sometimes later, leaving him unaffected for two or three days. In 1864, having served his full time, he claimed his discharge and returned; the sea-voyage caused his thorough convalescence. He continued quite well from that time until he complained to me. Suspecting, in the absence of all other ascertainable causes and of recognisable symptoms of impaired health, that his headache was a sequence of ague, I prescribed quinine in five-grain doses. The first was taken at 8 P.M. At 2 the following morning he awoke, feeling very ill, as if he were about to have an attack of ague, and with much nausea; he then found he had a distinct, well-marked sweating stage, which lasted from ten to fifteen minutes, and was succeeded by a rigor; this passed off in a very few minutes, leaving him free from brow-ague, and feeling well. Notwithstanding this attack (he had not sent for me during it); he took a second dose at 6·30 A.M.; this was not succeeded by any disagreeable effects or apparent action. He is not conscious of having had any dry hot stage. Since the attack, he has been perfectly well in every respect. The transposition of the cold and sweating stages, and their occurrence without the intervention of any dry stage, were remarkable.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 11TH, 1868.

ELECTRO-THERAPEUTICS.

THERE was a time when electricity was vaunted as the remedy for almost every ailment, and when it was even alleged that by it the dead could be restored to life. As might have been expected, its indiscriminate use was more frequently followed by failure than by success; and it consequently soon came to be regarded with suspicion and distrust. Even now, notwithstanding our greatly advanced knowledge of the action of electricity upon the various tissues of the body, notwithstanding that the writings of Duchenne, Remak, Middeldorpff, Althaus, Ziemssen, and others, have informed us how and when to employ electricity as a therapeutic agent, and have shown how valuable it is when rightly made use of, it is nevertheless true that many regard it with indifference, and not a few are in the habit of turning to it only as a *dernier ressort* when everything else has failed; seldom, indeed, because they expect it to do any good, but merely to satisfy themselves that they have tried everything.

A good deal of this is owing to the fact that, in this country at least, the subject is too much neglected in our medical schools.

In this and subsequent articles we hope to give a brief outline which will serve to indicate the present state of Electro-therapeutics, in the hope that it may lead to a more careful study of the subject on the part of some who may have hitherto neglected it.

Frictional electricity, though formerly much employed in medicine, is now entirely superseded by the use of the Galvanic and Faradic currents. Galvanism, or the Galvanic current, is the term applied to that form of electricity which is derived from the contact of two heterogeneous metals immersed in a fluid which exerts a chemical action on one of them. Faradism, or the Faradic current, is the term used to designate the electrical currents which are *induced* in a coil of conducting wire when a magnet is brought near to or removed from it, or by the formation and the rupture of a Galvanic current passing through another coil near but not in contact with the first.

The Galvanic current will continue as long as the chemical action in the battery; hence it is often termed the *continuous* or *constant* current. On the other hand, the Faradic current is instantaneous; and, because it is produced by induction, the term "induced current" is used by many authors to designate it. On the whole, it seems advantageous to adopt the two terms Galvanism and Faradism, as indicating the two kinds of electricity used in medicine; and to speak of the therapeutical employment of the one as Galvanisation and that of the other as Faradisation.

Many kinds of batteries might be used to generate the Galvanic current; but that invented by Daniell is the best, on account of its cleanliness and cheapness. Each cell of the battery contains a plate of copper immersed in a solution of sulphate of copper, kept saturated by a quantity of crystals of the same, and a plate or cylinder of amalgamated zinc immersed in dilute sulphuric acid (one of ordinary sulphuric acid to eight or ten parts of water). The acid is separated from the copper solution by a porous clay cell. When a number of elements are employed, the zinc or negative pole or electrode of one cell is joined to the copper or positive pole or electrode of another cell.

To obtain the inducted or Faradic currents, we may use a rotatory magnetic machine, in which coils of wire surrounding cylinders of soft iron are caused to revolve before the ends of a permanent steel magnet. The induced currents obtained from this machine are recommended by Dr. Althaus (*Treatise on Medical Electricity*, p. 202. London: 1859) for the treatment of some cases of deficient vision and rheumatic callosities. By a number of distinguished electro-therapeuticians, however, this apparatus is not used, because it is apt to get out of order, the currents obtained from it are of very inconstant strength, and the necessary turning of the handle is most wearisome.

The Galvano-induction machines in common use are, therefore, to be preferred for producing the Faradic currents. They consist of two coils of wire—one, a short coil of thick wire termed the primary coil; the other, a long coil of very thin wire, termed the secondary coil, which generally surrounds the first, but has no connection with it. The wire of the primary coil is connected with a Galvanic battery, consisting usually of a Smee's or Daniell's element; and the current which circulates through the primary coil is termed the primary current, while that which is induced by this in the secondary coil is termed the secondary current. The influence of the primary current is much increased by a bundle of soft iron wire inserted within the primary coil; and the strength of the secondary current may be varied by pulling out or pushing in the bundle of soft iron within the coil. The strength of the secondary current may also be graduated with great nicety by varying the distance between the primary and the secondary coils. In Du Bois Reymond's induction machine, this mode is adopted: when a strong current is wanted, the secondary is placed so as to surround the primary coil; while, in order to obtain a weak current, the one coil is pulled away from the other. Du Bois Reymond's machine is the best for physiological purposes; for therapeutical ends, it is also excellent; but it is not sufficiently portable. For portability, Stöhrer's machines are perhaps the best. Everything required is packed in a small box, and, when the machine is put into use, nothing requires to be removed from the box. As the induced current is instantaneous, and only produced on forming or on breaking the primary current, an arrangement, termed a Neef's hammer, is employed to rapidly break and re-form the current in the primary coil. The term "interrupted current" is often used to designate a succession of Faradic or inducted currents. This is a most misleading term, which ought to be abandoned, because the Galvanic or continuous current may be rapidly interrupted, and in that case the term would as properly apply to the Galvanic as to the Faradic current.

In the Faradic current, the electricity is of high tension, and is a much more powerful irritant than the electricity of low tension, which constitutes the Galvanic current. When the thermal and electrolytic effects of electricity are wanted, *e.g.*, to heat a wire with which to remove a tumour, or to coagulate the blood inside an aneurism, the Galvanic current is employed, because in it the electricity is great in quantity and low in tension. There are important physiological effects produced by the Galvanic current, to which we will allude in our next. Meanwhile we close these necessarily brief introductory remarks.

Our next article will treat of the physiological effects of electricity.

THE SICK-CLUB MOVEMENT.

THE established medical practitioners of Wednesbury and at Oldbury have resolved not to hold any appointment to a sick society under a fixed and higher rate of remuneration, as settled in common meeting. The clubs, however, have endeavoured to meet this by introducing three "new men" at the lower rate of remuneration. Of course, if men can be found willing to undersell their professional brethren, and to help the clubs in keeping down the rate of professional remuneration to its old pitiful standard, the efforts made by the Branches of our Association and by the meetings which have sprung out of it, to raise the standard, and to act with concord and good feeling, will be impeded, and their complete success obstructed. We heartily hope that it may prove that these gentlemen are unaware of the circumstances under which they are being made the tools to injure their professional brethren, and to bring to nought an important movement of which the benefit is for all; and that they will not consent to occupy so distressing and invidious a position. As for the clubs, they must have peculiar views of their own wants, and of their confidential relations to medical advisers, to take such means to procure them and to expect to get what they want. At a meeting of the medical profession of South Staffordshire and East Worcestershire, held at the Dartmouth Hotel, Wednesbury, July 2nd, 1868, it was resolved—

"That, taking into consideration the introduction of medical men into portions of these districts, who are acting contrary to the unanimous resolution of the profession, we pledge ourselves neither to meet them professionally nor socially; and we further pledge ourselves not to consent to meet in consultation any physician or surgeon who recognises them."

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FEVER is diminishing in the towns of the Mauritius, but has appeared in places which had hitherto escaped.

AT the meeting of the British Medical Association at Oxford, in the first week of August next, we hear that Professor Pancoast of Philadelphia, Gross of New York, Dr. Duchenne of Boulogne, Dr. Marey (the inventor of the sphygmograph), M. Galezowski, and other foreign visitors, are expected.

AN opening dedicatory service at the memorial chapel of the new Royal Hants County Hospital at Winchester, took place last week. The removal of the medical staff and patients from the old to the new hospital will, it is expected, take place in about a fortnight.

DR. ODLING, F.R.S., Professor of Chemistry at St. Bartholomew's Hospital, has been elected Fullerian Professor of Chemistry at the Royal Institution, in succession to the late illustrious Faraday.

THE PRESIDENT OF THE MEDICAL COUNCIL.

THE Medical Council have resolved to ask Dr. Burrows to continue to fill the office of President, which, it is understood, he is willing to do for a limited period only. There was a very strong feeling in favour of the election of Mr. John Simon, the Medical Officer of the Privy Council. Not only would his habits of thought and official experience have been very useful in such an office, but his connexion with the Government would supply the Council with the political link which they very much need. On the other hand, as Dr. Burrows is willing to continue to act, there is an obvious advantage in the knowledge which he has of the past circumstances affecting the Medical Amendment Bill and other unfinished business; and he possesses, as a President, admirable qualities, which the Council have gracefully and judiciously recognised by this renewed mark of their confidence.

THE PRINCESS OF WALES.

THE happy and healthy course of the accouchement of Her Royal Highness the Princess of Wales is a source of unalloyed satisfaction. Her Royal Highness was driving out on Sunday, and at 4.25 A.M. on Monday her new little Princess came into the world; Dr. Arthur Farre and Dr. Sieveking being in attendance. Happily, nothing either in the accouchement or the convalescence has occurred to recall the unfortunate illness which marred the recovery of the royal patient on the last occasion. Nor has it in any way influenced unfavourably the present event. Everything has passed off auspiciously, and the medical record is a prosperous blank. The little Princess is a fine healthy and thriving infant. In three days, the daily bulletins will, in the regular course, be discontinued—always a good sign.

STATE MEDICINE.

WE have reason to believe that the Government propose issuing a Royal Commission to inquire into the operation of the sanitary laws, with a view to their extension, consolidation, and amendment. It is under consideration whether the present defects of registration and of the mode of conducting medico-legal inquiries may not be included in the inquiry, in accordance with the further prayer of the memorial of the deputation of the British Medical and Social Science Associations, which lately had an interview with ministers on the subject. It is of great public importance that they should be.

THE MEDICAL ARRANGEMENTS AT THE WIMBLEDON CAMP.

WE understand that there will be no change in the medical arrangements this year. The hospital accommodation will consist of, as usual, two tents, one set apart for regulars, the other for volunteers, under the charge of Surgeon-Major Wyatt, of the Coldstream Guards, with Staff-Assistant-Surgeon Temple, V.C., and Assistant-Surgeon D. R. Pearson, London Scottish Volunteers. Orderlies are supplied by the War Office; and all instruments, drugs, and other necessaries, are obtained from the same source. It is sincerely to be trusted that, ere another Wimbledon meeting, the exertions of the Volunteer Medical Association will have succeeded, among other improvements, in obtaining separate hospital accommodation for the volunteers, under the charge of good representatives from among their own medical officers. This would be only justice to them, as is, we are enabled to state, all but the universal opinion of disinterested medical officers of the regular army.

THE MEDICAL OFFICERS AND THE LATE ABYSSINIAN CAMPAIGN.

GREAT dissatisfaction has been produced in the minds of the medical officers at the ungenerous conduct of the Government in having made no allusion whatever to the great services rendered by the Medical Department in Abyssinia; and at the omission of Dr. Currie's name from the vote of thanks on the part of Parliament to the Abyssinian Army. In no former campaign have the medical officers discharged their duties better or more successfully. The expedition was one in which the obstacles were those of a geographical nature, and the dangers those of a comparatively unknown climate. Every branch of the service worked hard, no doubt; the medical undertook labours of a most responsible nature, and discharged them with indubitable success. The losses from disease were insignificant in the extreme; and the medical and sanitary administration was most admirable. We think, therefore, that the medical services have been very unhandsomely treated; and heartily concur with the writer of a communication in our contemporary, the *Daily News*, in hoping that members of our profession may receive a fairer measure of treatment at the hands of a new and reformed Parliament.

THE INDIAN SUBORDINATE MEDICAL DEPARTMENT.

THE *Delhi Gazette* states that an order will soon be out sanctioning an increase of pay in the subordinate medical department. The increased expenditure to be sanctioned amounts to a considerable sum, altogether upwards of a lakh.

THE INSANE IN WORKHOUSES.

In the twenty-second report of the Lunacy Commissioners, it is stated that in many of the populous unions in the provinces, it is a common practice to send recent cases of insanity into the wards intended for chronic and harmless patients, and to retain these cases until, after imperfect attempts at cure and loss of valuable time, the subjects have become unmanageable. The Commissioners point out the gross injustice of this system as regards the patients themselves, and the financial mistake as regards the ratepayers, as these attempts at cure within the workhouses usually result, even in the most favourable circumstances, in imperfect recovery. For the purpose of showing the culpable impropriety of making workhouse wards places for the reception of recent or dangerous cases of insanity, allusion is made to three notorious occurrences. The first of these was a death from fractured ribs in the Clifton Union Workhouse, in which there was reason to suspect that the injuries had been inflicted by a pauper assistant. The second was one of homicide n the lunatic wards of the Stockport Union Workhouse; this department was under the care of three paupers, although the necessity for the supervision of a properly qualified attendant had been previously pointed out to the guardians. The third instance was one of ill-treatment of a unatic patient in the Bromsgrove Union Workhouse.

PUBLIC MORTUARIES.

THE parish of St. George's, Southwark, appears to have been in a state of fierce agitation for some weeks past on this question; and two of the foremost men, advocating generally social improvement, have been rejected at the election for proposing the erection of a mortuary pon an old burial-ground belonging to the poor of the parish. The ishop had replied to the application of the vestry favourably to this use f the ground in question; and the vestry had prepared some very exellent plans, and had raised the necessary money. The extent, suroundings, and position of the ground appear to be unexceptionable. The ground is a disgraceful waste, and can be used for no other purpose. But, under the leadership of Mr. Attenborough and a minister of chapel, the poor have been violently excited, and have mistaken the bject of this mortuary, which is, of course, entirely for their benefit. ne tumultuous meeting, and a disgraceful scene of noise and violence the gallery of the vestry, for the intimidation of the vestrymen, have sulted. The subject is for the present postponed; it is to be hoped, nly postponed, as this parish, containing about eight thousand houses, as probably from four to five thousand of them let in rooms to the ery poorest people. Cases have been mentioned in the vestry, of the ead moved from the bed, that the living might use it; and the dead of mall-pox and fever have not unfrequently been found in the same room ith the living. Mr. Goddard, who is interesting himself in this matr in the House of Commons, should know of this most flagrant case. t least, a willing vestry should have its hands strengthened in a great nd good effort of this kind.

FOOD FOR THE PEOPLE.

HE Society of Arts has had a committee sitting throughout the year, hich has received evidence from a great number of persons interested, mmercially, scientifically, and philanthropically, in the alimentation the people. The summary of their year's proceedings includes an ergetic recommendation to diffuse better information amongst cotgers, farmers, and others, as to the ways of profitably raising poultry the markets. They think much benefit to the country may be deed from the formation of a piscicultural committee. The prospects bringing cheap and satisfactory supplies of fresh meat from distant untries are not much brighter than before, unless Mort's Australian n of refrigeration in vacuum chambers should prove commercially ccessful. Something is to be done, on the recommendation of Mr. rkeley, to diffuse useful information concerning "the edible character large classes of mushrooms of which no use is made now in this untry." We look forward to such a proceeding with apprehension, d doubt the possibility of educating the people generally to select the edible and reject the very similar poisonous varieties. The preserved milk from Zurich receives justly honourable mention. In cooking there is nothing more notable in the report than the account of Captain Warren's jacketed steam vessels and the Norwegian self-cooking apparatus, two excellent apparatuses.

THE NEW NOSOLOGY.

FROM January 1st, 1869, the nomenclature and classification of diseases, which have been prepared by the Royal College of Physicians, will be adopted in the returns of the Army Medical Department.

OUR ANCESTORS.

WERE they pigmies, or giants, apparent apes, or possible philosophers? Have we improved upon their structure? or are we physically degenerate? Strangely enough, this question of fact is still at issue. M. Lartet, at the last session of the Sociétés Savantes, gave an account of his scientific explorations in Dordogne, and of the bones, including three crania, which he examined, and of which the age is fixed as of the earliest quaternary period—the age of the mammoth. He dwells on the remarkable length and prodigious strength of the bones of the limbs. With this, the crania are remarkably large; and the brains which filled these capacious cases must perforce have been of considerable size. These skulls, he adds, are far from presenting the characters of inferiority which the school of "development" would attribute to our ancestors.

MEDICAL CANDIDATES FOR PARLIAMENT.

MR. R. P. BAILEY, a member of the Royal College of Surgeons, is a candidate for the representation of Athlone; and, as he is a large landed proprietor, constantly resident, he is very likely to be elected. It is also rumoured that the constituents of another Irish borough are anxious to secure the services of one of the most distinguished members of our profession in Ireland.

HEALTH OF THE NAVY.

THE Statistical Report of the Health of the Navy for the year 1865 has just been issued. It gives a favourable view of the sanitary condition of the royal navy during that year. Compared with the preceding year, there was a reduction in the ratio of mortality to the extent of 2.7 per 1,000 of mean force, and of invaliding to the extent of 2.5 per 1,000. There was also a reduction in the ratio of cases entered on the sick-list. As we intimated, this volume contains, for the first time, an appendix of scientific communications and reports. They are from the pen of Mr. McDowell and others, and are illustrated by good chromolithographs. We shall again refer to them, and congratulate the department and Dr. Mackay on this excellent volume.

MEDICAL CERTIFICATES.

PUBLIC and professional attention was lately much directed to the certificate of Sir William Fergusson on behalf of the person known as Madame Rachel. The impression was one not favourable to the influence and character of our profession. This week, however, Dr. George Johnson and Mr. Barnard Holt have certified that Madame Rachel is suffering from uterine and vesical disorder, which make it improper that she should be subject to a trial in court. We have reason to believe that Sir William Fergusson's certificate may have suffered from its delicacy of wording; that the like symptoms were then present, and for *prostrate* might have been read *prostate*, which would have made a great difference.

HYGIENE.

THE Committee of an institution called the Temperance Hygienic Hospital have requested the influence of Dr. Manning in introducing their "hygienic" system of treatment, by way of experiment, into the pauper infirmaries. This is a new class of unresisting victims of "experiment" which it remained for these philanthropists to discover. The *Daily Telegraph* administers a clever castigation.

DISINFECTION OF RIVERS.

ATTEMPTS were made during the present week to correct the effluvia from the River Liffey, which have been most injurious to those inhabitants of Dublin, who are compelled to dwell along it.

DRINK FOR DOGS.

SIR RICHARD MAYNE is rendering a not unacceptable service in ridding the streets of London of stray and homeless dogs, and in dispatching the large population of unhappy and diseased curs which have been accustomed to prowl about London. To what purpose will he devote the funds which he is raising by the sale of unowned live dogs for pets, and of dead dogs for manure? Suppose he were to make it a subscription to the Metropolitan Cattle-trough and Drinking Fountain Association. He might then safely take off the summer muzzles from the thirsty dogs who are now suffering from his not very intelligently limited edict.

THE SICK-CLUB MOVEMENT.

MR. NEWNHAM, the President of the Birmingham and Midland Counties Branch, in his annual address, referred to this subject as follows.

> "The movement which has particularly set its mark on the year has been that of the club question, which, originating in this Branch from the paper of Dr. Heslop, brought before us at our last annual meeting, has spread its influence through the length and breadth of the land in a most remarkable manner; and the success which has already attended the movement has been most wonderful. I know of one instance in which, by this movement, we shall actually have added four hundred pounds a year to the income of two medical gentlemen; and, if we only persevere in this movement, the benefit which will result to us as a body will be far beyond all the most sanguine anticipations; and the only reason that these results have not already been much greater is because we, as a body, have not been in real earnest in pressing the matter. The majority have been content to allow the few to fight, they looking on, and ready to avail themselves of the advantages when the battle was won; or they have allowed themselves to be talked over by the claptrap nonsense of bad times; or the poor club-members can't afford it. Can't afford what? Why, the extra pay to the doctor. It is all very well for the officers and secretaries of clubs to talk like this. What salary do they get? The simple denial of one glass of ale a week would amply suffice to pay the whole of the five shillings *per annum* asked for from each member; but it would not suit the secretaries of the clubs to let this be known. Do not let us be outdone by any other body, as we have inaugurated the movement of reform in our own Branch by this action on the club question. Do not grow cold and passive in the matter, but press on to a still more determined and united action. Our difficulties will vanish; our battle will be won; and we shall be handed down to posterity as the benefactors of our order; and, by our success as a body, we shall promote the good of each individual member, and encourage the brotherly feeling which I have been endeavouring to inculcate, and without which we cannot succeed."

THE PHARMACY BILL.

THE Pharmacy Bill, now being promoted by the members of the Pharmaceutical Society and others, has some serious defects; and the Medical Council and the Parliamentary Bills Committee of the British Medical Association have both set themselves to work to get them corrected, if possible. The resolutions of the Council are before our readers. A deputation, consisting of Sir Dominic Corrigan, Dr. Rumsey, Dr. Leet, and Dr. Alexander Wood, saw Sir James Fergusson on the subject; and he entered very carefully into the question. He especially admitted the force of the wish of the Council to prevent the indiscriminate registration (with all its privileges and immunities) of a host of ignorant and incompetent traders in drugs; and also the deficient security afforded to the public by the regulations of the Bill regarding the sale of poisons. The like points have been urged by the Committee of our Association, who wish further, and most properly we think, to impose a penalty on druggists entering on "counter-practice," and so protect the public from the dangerous consequences of that form of malpractice. This is due also to the medical practitioner, whose interests our Association is bound to consider. The Bill is far from being the piece of perfection which some medical contemporaries in the press assume it to be; and we trust that the deputation of the Committee of our Association to obtain amendments will be well-attended.

SIR THOMAS WATSON ON THE REPRESSION OF SYPHILIS IN THE CIVIL POPULATION.

NOTWITHSTANDING that the first annual meeting of the Contagious Diseases Association was fixed on a day when the *levée* kept away politicians and the Medical Council occupied many leading members of the medical profession, it was influentially attended by both classes, and is likely to exercise a considerable influence. Sir Thomas Watson occupied the chair, and expounded the general objects of the Association, and the extent of the evils with which it is prepared to deal. He then adverted to the objections which had been raised to the restrictive sanitary legislation and its extension from the garrison towns to the civil populations generally. It had, in the first place, been objected that, as this disease was the result of wilful vice and depravity, it was undeserving of human help or charity. Surely this was a hard, uncharitable, and unchristian doctrine. Not so were the great troubles of mind and body—human suffering caused by human error—dealt with by the Great Physician, who embraced within His scope the whole catalogue of human sin. Nor was it certain, as the objectors asserted, that this disease was always the result of evil courses, for scores of virtuous wives had their whole prospects blighted by it, and their lives rendered for ever miserable; and children, even to the third and fourth generations, suffered for the viciousness of a parent. Again, it was said that the recognition by authority—and the notoriety of the recognition—of the class of persons by whom this disease was chiefly disseminated would shock the delicacy of the nation and corrupt its morals. Now, he would ask if this kind of argument was not most ridiculous? for could this class of persons be more notorious than it was at present, when it was permitted to flaunt itself about all the streets in the most shamefully vicious manner. Indeed, legislation was demanded in the matter, if only to deal with the disgusting publicity of immorality. The Association was not asking for any licensing of vice, nor for any interference in the law, so as to countenance the everywhere prevailing evil. It was also urged that legislative restrictions would tend to the encouragement of vice by increasing its safety; but, whatever force there might be in this—and he considered it had been made far too much of—was more than counterbalanced by the fact, that women who had led vicious lives would be brought into contact with those who would do their best to withdraw the diseased creatures of viciousness from their evil courses. Nor could it be said that the regulations which the Association would ask for from the Government would be any encroachment upon that personal liberty, of the possession of which we were so proud. Civil liberty had been defined as the liberty which a man possessed to do what he would, subject to the general good of the community. An illustration of the restrictions which were placed upon a man for the good of the community was to be seen in the fact, that we took steps against the propagation of the small-pox; and, if we interfered with personal liberty for the common good in that respect, why should we not do so for the prevention of a worse disease still; for the small-pox could not be transmitted to a man's children and children's children. The purpose of the Association, if carried out, would prove as beneficial to the public as other measures taken to preserve the public health, as well as beneficial to those classes upon whom it would operate. There were two points to which any legislation must tend—the erection of hospitals, and police and other regulations for inspection. The case of the Association was so strong and holy, as to warrant a very confident belief that, when party strife had subsided, and when the legislature should betake itself to its proper function of governing the nation and watching over its sanitary and moral well-doing, this subject would receive its serious consideration. *Salus populi suprema lex.* Lord Lifford mentioned that the report of the Select Committee of Lords would be of a character greatly to aid the objects of the Association. Very interesting speeches were made by Sir John Simeon, Mr. Mitford, Mr. Quain, and other speakers; Mr. Skey introducing a spice of opposition into the proceedings. We are unable further to use our full report: but we would strongly urge our readers who are interested in the subject to procure the very able and interesting report of the Association, which was brought up in a printed form, and contains a mass of information of the most deeply interesting and reliable character.

REPORT
ON
THE METROPOLITAN HOSPITALS.

THE ROYAL FREE HOSPITAL (*continued*).

THE arrangements for the reception and treatment of in-patients at this hospital are deserving of somewhat full description. They differ much from that which one has a right to expect in an institution receiving so large an income from the hands of the benevolent public; and we feel satisfied that, by calling attention to the extraordinary disparity of results and means at this hospital as compared with others in the metropolis, we shall enable the more able and energetic section of its administrators, who have hitherto been out-voted, to obtain, at least, a new hearing; and shall thus assist in increasing the value of an institution which is certainly much wanted, but of which the usefulness is now much curtailed by defects of management.

There are six wards, whose architecture and sanitary appendages are anything but good. As the building was not, we believe, originally devised for hospital purposes, and as there is plenty of spare room, we shall omit criticism which could not perhaps be very useful. We would only remind the managers that superficial or floor-space is as important for hospital purposes as cubical air-space, and that they have room to make improvement in this respect. The walls of the wards are of rough limewashed brick, very dreary, and very ill supplied or not supplied at all with anything which can gladden the eye or cheer the thoughts of the patients; and in this respect are far behind most hospitals. There are six wards, of which only four are usually occupied. They are wretchedly bare and ill furnished. The beds are of various shapes and patterns, some with a considerable slope; and, in one of the wards, we found pieces of brick, which we were informed were used for propping up the bedsteads, which "sloped sometimes one way and sometimes the other". Elsewhere they were tilted to a level by props of wood, as being "more tidy". In the accident-ward, where they are most wanted, there were no bed-pulls for the patients to lift themselves. The bed-furniture is very coarse, scanty, and disgracefully ill kept. One sheet a week only is changed in the regular way; and of the sheets on the beds a considerable proportion were absolutely in tatters; some had holes as big as a head, and others were falling to pieces. Finding a boy in bed without sheets, we were at first informed that the sheets had run short; subsequently, by the nurse, that she exercised her discretion n giving sheets, and thought he could do without them. She had no orders about it. He had a diseased hip. Each patient has a locker for his clothes, with a drawer for his spare food. These lockers were n a disreputably broken and dilapidated condition: the tops off, hinges broken, and drawers shattered, in great variety. The night-stool was broken, and tied up with a bandage. The one "cradle" which we saw in the Ward A, and which was credited with "tearing the sheets", was itself broken and distorted, and presented sharp ends of wire which would certainly be destructive. In the Ward A, there is a small table, at which a certain number of patients capable of moving about can ake their food. In the corresponding ward on the ground floor, there s no such arrangement, and the patients who are up sit on the lockers and eat off the beds. Upon various of the beds were dirty tin plates, head-combs, and other articles, in admired disorder. This accident-ward is miserably looked after and disorderly. On the screen were drying tockings and underlinen helonging to the nurse. The head-nurse's oom here is an unhealthy sort of cupboard. There was a good supply of water in the closets; but many of them were crowded with all sorts of ubbish, slop-pails, teapots, brushes, and clothes.

In the spare ward upstairs, we found one solitary patient, whose lothes were strewed on one of the numerous empty bedsteads at hand, nd lying by them were a basket of pieces of bread, fragments of roken chairs, and a variety of rubbish. On previous visits, we had enerally found this ward empty. At one of our visits, a table was there, n which an operation had been performed on some previous occasion; n it lay a blood-stained pillow, while the boards were coated with ardened blood, of which the stain remained on the occasion of our last isit. Astonished at this combination of poverty and neglect and disrder in such an establishment, we inquired whether the matron and teward approved of such a state of things. The nurses stated, in reply, hat the matron and steward rarely came into the ward, and exercised o active supervision over them. The nurses are expected to repair the nen, and, when "anything is wanted, they are to go to the matron or it". The only two nurses who could fix dates on which the matron ad visited the wards were, one who said that she had been up last week to see the kitchenmaid who was then a patient, and another who said she had come to take an inventory, when she (the nurse) first came to the hospital—a considerable time ago. We paid a visit to the matron and steward, in their apartment across the courtyard below stairs. They confirmed this statement; they said that they had so much to do, that they did not think it their duty to visit the wards. They assured us that they were very heavily worked. The steward ascended to the wards with us. He was vastly surprised at the torn sheets and broken boxes; and sang the old song, with which last year's experience in visiting ill managed workhouse infirmaries had made us familiar, that he ought to have been told; that the hospital was very poor; that there was great difficulty in getting the board to expend money, etc. He seemed to know singularly little about his hospital. He did not even know where or how the patients dined, and thought that "of course the patients sat at the table to dine"; and was surprised to find that they had none to dine at. We found that the matron and steward were mother and son; that neither had any previous experience in their duties. The matron held a respectable position in private life, and has been in office here for many years. The steward has been there not very long, and before his election was "in the building trade". We could not find out from them whom they considered responsible for the care of the wards; they were clear, however, that it was neither the matron, steward, or secretary. Nevertheless, we find it stated in the recent report of a Subcommittee that, "under existing arrangements, all matters connected with what may be called the domestic arrangements of the hospital are conducted by Mrs. Russell, the matron, aided by her son, who acts as steward." To complete our confusion, they add that they "do not suggest any alteration in this arrangement." Perhaps they did not turn down the beds, or critically examine the arrangements which we have described.

Of the head-nurses' accommodation, we can only say that it is bad throughout the hospital—very bad in the accident-ward. The undernurses are accommodated in the large unused ward upstairs, where we found four or five of them literally bivouacking in the corners behind screens, with a basin and ewer on the floor, and other arrangements equally primitive. Of the nursing itself, we know nothing; but good nursing without thorough supervision from the matron is practically impossible.

The dietaries have recently been re-arranged, without consulting the medical officers, on a system which is felt to be extremely inconvenient, and entails much discomfort and needless trouble to the house-surgeons; while the visiting medical officers inform us that they have thought it necessary in various cases to give money to buy milk and bread for the patients, which, by the scale, they were precluded from ordering. As to the cooking arrangements, we may state that the kitchen is so small and inconvenient that it would be insufficient for an ordinary gentleman's establishment, and that all complain of it. It is proposed to make some considerable alterations; moreover, it is quite away from the wards, and all the cooked food has to be carried across the airing-ground common to in- and out-patients. After what we have stated as to the number of beds occupied—about eighty-five—it is astonishing to find that the butchers' bill is set down in the annual report at £1220, a sum which suffices to keep in butcher's meat a hundred and fifty patients at another metropolitan hospital. Remembering, too, that the total annual income appears to exceed £8000 a year, it is certainly not satisfactory to find that the patients (who are supposed, by the very theory of the hospital, to be "homeless and destitute") have to buy their own tea, sugar, and butter; whereas, in a hospital in every respect better kept up, and where nearly twice the number of patients are sustained, it is found practicable, with this same income, to provide these necessary articles of diet. We may add, that a fourth of the patients admitted at the Royal Free Hospital are suffering from enthetic disease, and that the statistics of hospitals devoted to these cases show that they can be maintained at a much lower cost than the average run of hospital cases. We have before us a letter from a person well acquainted with the fact, complaining that this tax for tea, sugar, and butter, is with difficulty met by a numerous class of patients, and involves frequently great hardships.

On the internal medical and surgical arrangements, we shall touch but lightly. The number of patients is not considerable, and the staff generally are much interested in their cases; and the operation of the hospital in this respect, though unduly limited, is beneficial, and deserves encouragement and extension. It is absolutely essential, however, that the staff here, as at other hospitals, should be constituted as a Medical Board, to take references from, make suggestions to, and consult with, the Weekly Board. This course was recommended by a Subcommittee, but was not adopted. It certainly ought to be; and then we have no doubt that much that is objectionable and irregular will be corrected. The mode and times of visitation, consultation, and operation, the fitting of the operating-room, the apparatus and instruments, are anything but what they ought to be; and this is, we believe, generally admitted by the staff, who would accept with satisfaction the constitution of a Medical Committee. The operations are now performed in a corner of a very big, very bare, unfitted room, which was, we believe, a workshop or a stable, in which water is not laid on; the lighting is bad, the instruments are not at hand, and everything is disorderly and inconvenient. There is an unused arrangement for preparing hot water; the place is littered with beds, rusty splints, etc., and the floor dirty and stained. The fracture apparatus which we saw in use was made of makeshifts. This "operation-room" is separate from the wards, and patients have to be carried across the "exercising ground" or general courtyard to and from the wards; in wet weather, under the shelter of umbrellas. Across this yard, also, must be carried the amputated limbs, etc., which are to undergo examination for the museum. It is unnecessary to characterise such arrangements.

We do not doubt also that, if there were a Medical Committee, they would, as is usual, appoint a Subcommittee to superintend the dispensary department, to see that the drugs were obtained at a reasonable price, and of a fair quality. At present, no such supervision, so far as we could learn, is exercised by any independent authority. The Special Subcommittee of the Governors has recommended that "all powders for patients be made up separately, so as to contain one dose only in each packet, and not to be dispensed *en bloc;*" and that "all drugs required for the dispensary be advertised for, and selected, after public competition, by tender and contract," etc. But even these mild and gentle suggestions were not passed by the managers. On our visit, we were informed in the dispensary that the drugs were ordered without contract or estimate; and that there was no check upon the prices and qualities, except the discretion of the druggists and dispenser. We have not been able to ascertain the precise cost of this department, as it is lumped with other items in the published annual balance-sheet; and, on application to the Secretary and the Weekly Board, they declined to furnish us with the required information. To this subject we shall return next week, in considering the financial state of the hospital.

We shall conclude here by observing that the *religious instruction* of the inmates is officially provided for by the appointment of a chaplain at a salary of £105 a year. This gentleman, like the paid superintendent, has been in the habit of taking an active part in the general management, and is himself Chairman of the Weekly Board. He lives some miles from the hospital, and attends as chaplain once a week, on Sunday, when he reads prayers in a part of the hospital—generally, we were informed, in one ward, and generally during not more than twenty minutes. A breakfast we [were informed is provided for him, and his cab-fare is paid. We were informed that he usually visited each ward about once in three weeks. The nurses did not remember his ever being sent for to a dying patient. The liberality of a governor provides a scripture-reader, who, at a salary of £50 a year, is a very frequent, zealous, and welcome visitor in the wards and at the deathbed; and one of the governors, Mr. Phené, also labours zealously in the same cause. Under these circumstances, the chaplain has offered to the Subcommittee of Investigation, to which we have already referred, to perform gratuitously the duties which fall to him; and they recommended that the office of chaplain should be considered honorary, but that he should be allowed £50 a year for necessary expenses. This excellent recommendation seems to have shared the fate of the others in the same Report.

In this sketch, we have touched lightly and tenderly on the defects of an institution which, notwithstanding all of them, heartily commends itself to our sympathies, and is taking part in a noble work, but is so crippled and injured by a faulty system of management, that nothing else than a complete reorganisation can give to it its rightful position amongst the charities of London, or ought to satisfy the subscribers. We shall discuss its expenditure more in detail next week.

It will be observed that we omit any special reference to the functions and labours of the salaried "General Superintendent", Dr. Alexander Marsden, who combined that office with the duties of visiting-surgeon. We do so because we are informed that *on Thursday afternoon last he resigned.* It is, we imagine, highly improbable that the office will be filled on the same footing.

Since our article of last week appeared, we have received the subjoined letter:—

"SIR,—As a member of the staff of the Royal Free Hospital, I beg to inform you that the *Black Boards* (to which you referred in your report of last week, containing the names and addresses of the medical officers) have been in existence ever since the hospital was founded, and from time to time, as deaths, changes, and new appointments have occurred, they have been *simply repainted* by order of the weekly Board, the medical staff having had no voice or authority in the matter.

"I may observe that several of my colleagues unite with me in a strong opinion that the system of printing up the addresses is a mistaken one, and calculated to give rise to unpleasant imputations.

"In justice, therefore, to many of the past and present officers, will you kindly publish this communication in the JOURNAL of the present week. "I am, etc., JOHN D. HILL, F.R.C.S.

"Guildford Street, July 7th, 1868."

⁂ Dr. Cockle has addressed us in a similar communication, and we are glad to find that medical officers of the Royal Free Hospital agree with us about these Black Boards. We shall be delighted to give them all the assistance in our power in restraining a non-professional Committee of Management from dealing with a matter so strictly professional in a manner which the staff agree with us in condemning. Have they ever before protested against it?

ROYAL COLLEGE OF SURGEONS.

THE annual election of Fellows into the Council of the College, having terminated, has been succeeded by others amongst the members of that body, who on Thursday last elected Mr. Richard Quain, F.R.S., Consulting-Surgeon to University College Hospital, to the President's Chair; and Mr. Edward Cock, Surgeon to Guy's Hospital, and Mr. Samuel Solly, F.R.S., Surgeon to St. Thomas's Hospital, were elected Vice-Presidents of the College for the ensuing year. At the same meeting, Mr. Partridge was elected an Examiner in Dental Surgery, in the room of Mr. James Luke. On and after the 1st of October next, all candidates presenting themselves for the final examination for the diploma of Member of the College will be required to pass an examination in Medicine at the College, or to produce a recognised degree, diploma, or licence in Medicine, before receiving the diploma of the College. Dr. Wilks of Guy's Hospital, and Dr. Peacock of St. Thomas's Hospital, were elected Examiners in Medicine. Messrs. Huxley and Le Gros Clark were re-elected Professors of Comparative Anatomy and Physiology and of Surgery and Pathology respectively for the ensuing year. Mr. Hulke was elected to fill the new appointment of Lecturer in Anatomy and Physiology; the names of Mr. Lockhart Clarke and Professor Humphry having been withdrawn, at their own particular request. Drs. Arthur Farre, Barnes, and Priestley were re-elected Members of the Midwifery Board; Mr. Cock being chosen as Chairman. Messrs. Chatto and Stone were re-appointed to their respective offices. The motions of Mr. Hancock and Mr. Charles Hawkins were adjourned, in consequence of the lateness of the hour. At this meeting, the recently elected Councillors were sworn in and took their seats; viz., Sir William Fergusson, Mr. John Simon, Professor Humphry, and Mr. Luther Holden.

THE DINNER OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

AT the annual dinner of Fellows after the election, there was an attendance of about 120, including a considerable number of provincial fellows.

Mr. Partridge was in the Chair. The toasts and speeches were of the usual formal character. The only features of more than temporary interest were furnished by Professor Longmore's speech, who referred with gratification to the improvements in the Army Medical Department, and in the position of military surgeons—changes which, he said, had been wrought mainly by the powerful influence of our Association and of the medical press. Mr. Hilton laid a just emphasis on the magnificent and unrivalled collections of the College of Surgeons, their extent, their exquisite order, and their precious value. The examinations of the College of Surgeons had, he said, reached now a standard at which 25 per cent of applicants were rejected. The number of Fellows by examination is increasing rapidly; and the College looked to these especially to maintain its *prestige.* Mr. Cooper replied for the Apothecaries' Society; Mr. Cock for the Volunteers; Dr. Edward Smith for the College of Physicians. Sir William Fergusson proposed, and Mr. Turner returned thanks for, the Provincial Schools; Mr. Le Gros Clark for the Metropolitan Schools. Mr. South proposed the health of Mr. Partridge; Mr. Hancock that of the Stewards and Honorary Secretary, Mr. Hulme.

THE
GENERAL MEDICAL COUNCIL
ON
EDUCATION AND REGISTRATION.

SESSION 1868.

THURSDAY, JULY 2, 1868.

The PRESIDENT took the chair at 2 P.M.

Report of Pharmacopœia Committee.—The report of the *Pharmacopœia* Committee was read. It was therein stated that the Committee, in accordance with authority given them by the Council, had engaged the services of Dr. Redwood, who had rendered valuable assistance in the preparation of the last edition. Dr. Redwood had prepared and placed in the hands of the Committee a report, which was well calculated to be useful in all further proceedings connected with the work. A portion of this report referred to some typographical and minor errors. The Committee recommended that this portion of the report should be published, so that those who possess the *Pharmacopœia* might themselves be enabled to make the necessary corrections; and also that these corrections be printed as a slip, in the copies hereafter sold.

On the proposal of Dr. SHARPEY, seconded by Dr. STORRAR, the report was ordered to be received, entered on the minutes, and adopted.

Certificates in Lunacy.—The Committee on Lunacy Certificates reported that, having fully considered the subject remitted to them, in concert with Mr. Ouvry, they had resolved to recommend to the Council that a letter which, at their request, had been drawn up by Mr. Ouvry, be transmitted by the President to her Majesty's Secretary of State for the Home Department. The letter, which contained a statement of the case, with which our readers are already acquainted, concluded with the following paragraphs:—

"Considering the importance which these certificates have as affecting the liberty of her Majesty's subjects, it must be admitted that the objections stated by the Commissioners in Lunacy are entitled to great weight, but at the same time the adoption of the rule infringes the privileges conferred on the medical profession by the Medical Act, and leads to considerable inconvenience when it is desired to place a lunatic in an asylum which is not in that part of the United Kingdom where the lunatic resides. The object can only be effected by bringing two medical gentlemen from England, Scotland, or Ireland, as the case may be, to the place of the lunatic's abode, or by taking the lunatic, without any legal authority, from his abode to that part of the United Kingdom where the asylum in which it is desired to place him may be.

"I am instructed to suggest to you that an Act should be passed, applicable to the United Kingdom, which, while it will give to the medical profession the full privileges contemplated by the Medical Act, will at the same time ensure that no person giving a false certificate shall escape the punishment justly due to his offence."

The letter having been ordered to be entered on the minutes, it was moved by Dr. ANDREW WOOD, seconded by Dr. FLEMING, and agreed to:—"That the Report of the Committee on Lunacy Certificates be adopted, and that the letter which has been suggested in the Report be addressed by the President to the Right Hon. the Secretary of State for the Home Department."

Vaccination.—The Vaccination Committee brought up a Report, which was ordered to be entered in the minutes. The Report embodied the information received from the various Licensing Boards as to the testing of the knowledge of vaccination possessed by candidates, together with a letter to be addressed by the Registrar to the Medical Officer of the Privy Council. The Report having been ordered to be received and entered on the minutes,

Mr. CÆSAR HAWKINS proposed, and Dr. BENNETT seconded—"That the Council do sanction the proposal of the Committee, and issue to each Licensing Body in England, Scotland, and Ireland, for their adoption, the following recommendations relating to the knowledge of vaccination, by every person desirous of practising medicine or surgery. 1. That a certificate should be required by each Licensing Body from every candidate for its degree, diploma, or license to practise medicine or surgery, that he has studied vaccination under a certain and recognised teacher; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the methods of preserving lymph, and is thoroughly informed in every necessary part of the subject. 2. That such a certificate should only be received by any licensing body from recognised vaccine stations, or from recognised vaccine departments in medical schools, or hospitals, or other public institutions, where the appointed teacher of vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (perhaps eight or ten on an average weekly) as may be found, after due inquiry in the first instance, confirmed by authentic returns, or inspections from time to time, to be sufficient for this purpose at each place."

A long discussion followed, in the course of which Sir DOMINIC CORRIGAN insisted on the necessity of practical examination in vaccination. He proposed the following amendment, which was seconded by Dr. ALEXANDER WOOD:—"That the following recommendation be adopted instead of those proposed in the report:—That each licensing body should require such certificates as it may deem necessary, and should examine every candidate for its degree, diploma, or license to practise medicine or surgery, as to his knowledge of the different stages of the vaccine vesicle, of the several methods of preserving lymph, and of every other necessary part of the subject."

The amendment, having been put to the vote, was lost: 7 voting for, and 9 against it. The original motion was then carried by a majority of 10 to 6. It was then resolved that the letter referred to in the Report be adopted, and forwarded with a copy of the Report, to the Medical Officer of the Privy Council.

Therapeutic Inquiries.—Dr. ACLAND moved—"That the Treasurer be authorised to pay £100 to Dr. Richardson, F.R.S., to aid him in his researches into the class of agents which can with safety be used as anæsthetics; that one-half be forthwith paid, and one-half on presentation of a report, which shall have special regard to the several properties of the said agents, and their fitness to be introduced into the *British Pharmacopœia.*" He recapitulated the proceedings which had taken place in former sessions of the Council when he had proposed that grants of money should be made for the purpose of conducting inquiries into the therapeutic value of the substances contained in the *Pharmacopœia*: and stated that he had now determined to bring forward the question in reference to a special case, so as to try it on its own merits.

The hour of six having arrived, the debate was adjourned on the motion of Dr. ACLAND.

FRIDAY, JULY 3, 1868.

The PRESIDENT took the chair at 2 P.M.

Therapeutic Inquiries.—Dr. ACLAND, resuming his remarks on this subject, said there was no more important class of agents, or more demanding inquiry, than anæsthetics. If a better instance could be found, he would support it; but he believed that that which he had selected was as good as could be suggested. As to the principle, he understood that the objections raised were, that the kind of inquiry which he proposed was not allowed by law to the Council, and that it was not desirable to be undertaken. An eminent legal person had told him that if the Medical Act charged the Council with the power of making a *Pharmacopœia*, and did not authorise them to inquire into the substances contained in it, it was an instance of "red tape gone mad." The signs of the times pointed to our want of an accurate knowledge of the value of therapeutic substances; and there was a very earnest desire on the part of the profession for such knowledge. With regard to the objection that the Council would be embarking in an unknown sea of uncertainty and expense, he would refer to the proceedings of the British Association for the Advancement of Science, and the valuable results which they, as well as the Royal Society, brought out by means of small grants. If it were admitted that the principle was desirable, but that the funds of the Council could not be so applied, he would be ready to support a proposal for application to Government for money. As the *Pharmacopœia* was a national work, it was certainly hard that the work relating to it should be paid for by the money coming from one class of persons.

Dr. STOKES seconded the proposal; and trusted that the Council would carefully weigh what has been said now and on former occasions. It was simply absurd to argue that the Council, though entrusted with the construction of a *Pharmacopœia*, had no power to inquire into the value of the substances to be introduced into it. If there were any doubt as to the legality of the proceeding, the opinion of the law officers of the Crown ought to be taken.

Dr. ANDREW WOOD regarded the proposal as inopportune and unfortunate. There would be no limit to the inquiry; and the funds of the Council would not be sufficient for it, especially as investigations on Medical Education and State Medicine had been instituted.

Dr. SHARPEY would vote against the motion because he doubted the power of the Council to apply money in that way. He conceived also that any experimental investigation undertaken by the Council in reference to the *Pharmacopœia*, should be pharmaceutical, not therapeutic or physiological.

Dr. Rumsey had supported Dr. Acland on previous occasions, and still held the same opinion as before with regard to the principle; but he objected to the selection of a particular instance.

Sir D. Corrigan saw that the motion was brought forward with a good object; but, even if the Council had legal power to undertake the investigation, it would not be advisable to enter on an inquiry the end of which could not be seen. The value of remedies was not established by the inquiries of a few persons, but by general experience and demonstration. If anæsthetics were selected for investigation, the same principle should be applied to emmenagogues, epispastics, and various other classes of remedies.

Dr. Aquilla Smith saw that the investigation proposed was quite beyond the province of the Council or of the Pharmacopœia Committee. He objected to investigations made to order; all great improvements had been made by voluntary exertions.

Dr. Acland having replied, withdrew the motion with the consent of the Council.

Medical Education and Examination.—The Committee on Medical Education and Examination presented an interim Report, stating that, after taking into consideration the points referred to them, they had put in train a series of arrangements by which they hoped to be able to obtain valuable evidence from the principal teachers and examiners in the kingdom which might aid the Committee in drawing up a complete report for the next meeting of the Council.

On the motion of Dr. Andrew Wood, seconded by Dr. Parkes, the Report was ordered to be received and entered on the minutes.

Report of the Finance Committee.—The Finance Committee reported that the total expenditure of 1867 had been £282 : 1 : 2 less than that of 1866; namely, £217 : 4 : 9 on the part of the General Council, and £64 : 16 : 5 on that of the Branch Councils. As regarded the General Council, the reduction might be accounted for by a diminution in the expenses for attendance at the meetings of the Council and Executive Committee, and in the printing account. The Executive Committee had recommended that the balance to the credit of the *Pharmacopœia* account, amounting to £1,543 : 2 : 3 should be applied towards the repayment of moneys advanced by the Council for the expense of publishing the *Pharmacopœia*. After such repayment, the sum remaining due to the Council on the 5th January, 1868, for advances on account of the *Pharmacopœia*, would amount to £712. In consequence of the resolutions of the General Council of June 7, 1867, relating to payment of the visitors of examinations, was an addition to the expenses of the General Council since last year of £31 : 10 for visitations of examinations in Ireland, and of £89 : 4 for visitations (including travelling expenses) in Scotland, making a total increase of £120 : 14.

The Committee had given careful attention to the memorial of the clerks for an increase of salary. The clerks, Mr. Bell and Mr. Roope, were appointed in 1859; Mr. Bell at a salary of £200, and Mr. Roope at a salary of £150, paid by the Branch Council. The Committee were informed by the Registrar that the work of the office has since then materially increased in all its departments; and that this work had been faithfully, and in every respect satisfactorily, performed. The Committee recommended that, in lieu of customary gratuities, which, in case of the adoption of this recommendation, should be discontinued, an addition of £35 *per annum* be made to the salary of each of the clerks, to be paid in both cases by the General Council, to commence from the 5th of January, 1868.

The Balance-sheet for 1867 was as follows.

Income.

	£	s.	d.	£	s.	d.
Fees received by—						
Branch Council for England	2369	15	0			
Branch Council for Scotland	649	0	0			
Branch Council for Ireland	796	10	0	3815	5	0
Dividends received by—						
Branch Council for England	628	1	4			
Branch Council for Scotland	81	0	7			
Branch Council for Ireland	64	7	6	773	9	5
Sale of Registers				289	19	6
				4878	13	11

Expenditure.

	£	s.	d.	£	s.	d.
Expenses of—						
General Council				3557	18	0
Branch Council for England	708	9	10			
Branch Council for Scotland	344	16	11			
Branch Council for Ireland	285	17	9	1339	4	6
Total Expenditure				4897	2	6
Total Income				4878	13	11
Excess of Expenditure over Income				18	8	7

The report was adopted, with the following amendment, proposed by Mr. Hargrave, and seconded by Dr. Rumsey:—"That, instead of £35, recommended by the Finance Committee to be given to Mr. Bell and Mr. Roope, an addition of £50 be made to the salary both of Mr. Bell and Mr. Roope."

Registration of Medical Students.—A communication from the Branch Council for Ireland, relative to two applications for registration from students, was read. The two students had applied to the Queen's College at Galway, where they had passed the Matriculation Examination for the necessary certificates to enable them to be registered, but the certificates had been withheld. The Irish Branch Council thereon registered the students on their own written statements of having passed the examinations; and expressed an opinion that "it was unjust to withhold from any students who had successfully passed a preliminary examination the usual certificate—a practice which obtains at the Queen's College, Galway—thus preventing any such from registering as students, should they desire to pursue their studies elsewhere than in that College."

Dr. Storrar moved, Dr. Andrew Wood seconded, and it was resolved—"That the communication from the Branch Council for Ireland, relative to two applications for registration in *The Students' Register*, be received, and entered on the minutes."

It was then moved by Mr. Cæsar Hawkins, seconded by Mr. Cooper, and agreed to:—"That this Council approve the course pursued by the Branch Council for Ireland in regard to the two applications for registration in *The Students' Register*, referred to in the above communication."

Registration of a Foreign Diploma.—An application from Dr. F. Milford for registration of his degree of M.D. by examination from the University of Heidelberg, dated 27th June, 1856, was read. The result of the inquiries made having been stated to be satisfactory, Dr. Milford's request was complied with.

Titles in the Register.—A letter was read from Dr. James Mason, of Sheffield, reminding the Council "of the very great necessity and importance of inserting the words 'Obstetrician or Accoucheur' along with the others of Doctor, Physician, Surgeon, etc., in the clause relating to the assumption and preservation of titles. These terms are daily becoming more generally used by quacks, because they find that such are used by duly qualified practitioners, and not protected by the Medical Act. There are actual examples of it here, and a large number of patients requiring obstetric treatment do not find it out till they have received its penalties." The Registrar was instructed to acknowledge the receipt of Dr. Mason's letter, and to enter it on the minutes.

The Carmichael Prizes.—A letter on this subject, from Dr. Edwards Crisp, having been read, it was resolved, on the motion of Mr. Hargrave, seconded by Dr. Fleming—"That the Council is of opinion that the matter referred to in a letter presented by Dr. Edwards Crisp, respecting the Carmichael Prizes, is not within the powers of the Council, as limited by the Medical Act, and the Council therefore declines to enter on its consideration."

Half-Qualified Practitioners.—A letter from Dr. Crisp, on the increase of half-qualified practitioners since the passing of the Medical Act, was also read. It was proposed by Dr. Bennett, seconded by Dr. Andrew Wood, and resolved—"That the letter of Dr. Edwards Crisp, on the increase of half-qualified practitioners, be acknowledged, and be referred to the Committee on Returns from Licensing Bodies and Registration of Students."

Parochial Medical Officers.—A memorial from the North of Scotland Medical Association, relative to the position of parochial medical officers, was read. Dr. Andrew Wood moved, Dr. Parkes seconded, and it was resolved—"That a letter be addressed to the North of Scotland Medical Association, acknowledging their communication, and intimating that this is a matter which does not fall within the province of the Medical Council."

Use of Names of Medical Men in Offensive Advertisements.—A letter from Dr. Robert Barnes, relative to the use of his surname by a non-registered person, in offensive advertisements, having been read, the Registrar was directed to acknowledge the letter from Dr. Barnes, and to inform him that it had been read to the Council.

Preliminary Education.—A long Report from the Committee on this subject was read and received; and the following, the first of a series of resolutions founded on the report, was adopted, on the motion of Dr. Alexander Wood, seconded by Dr. Storrar—"That it be recommended to the licensing boards not to accept the certificate of proficiency in general (preliminary) education from any of the bodies, the names of which are contained in the list annually circulated, unless such certificate testify that the student to whom it has been granted has been examined in—1. English language, including grammar and composition; 2. Arithmetic, including vulgar and decimal fractions; algebra, including simple equations. 3. Geometry, first two books of Euclid. 4. Latin, including translation and grammar. And in one of the following optional subjects: Greek; French; German; Natural Philosophy, including Mechanics, Hydrostatics, Pneumatics."

The hour of six having arrived, the further consideration of the Report was adjourned.

SATURDAY, JULY 4TH.

The PRESIDENT, Dr. Burrows, took the chair at 1 P.M.

Preliminary Education.—The consideration of the Report of the Committee on this subject was resumed, and the following resolutions were agreed to.

Proposed by Dr. ALEXANDER WOOD, and seconded by Dr. THOMSON—"That in re-issuing the regulation regarding the examination in English adopted last year the following be added: 'Provided always that an examination may be accepted as satisfactory that secures, on the part of the candidate passing it, a sufficient grammatical knowledge of English.'"

Proposed by Dr. ALEXANDER WOOD, and seconded by Dr. STORRAR—"That the Branch Councils be requested to make arrangements for visiting and reporting on such preliminary examinations, as have not already been visited, and regarding which it may appear to them desirable to procure information. That the reports made on these examinations be transmitted in the usual manner to the Executive Committee, for the consideration of the General Council at their next session."

Proposed by Dr ALEXANDER WOOD, and seconded by Dr. STORRAR—"That the Executive Committee be instructed to watch over any bill that may be introduced into Parliament for the improvement of general education, with a view of having such arrangements made as will enable the various licensing boards to secure the due preliminary education of medical students."

Proposed by Dr. FLEMING, and seconded by Dr. ALEXANDER WOOD—"That it be remitted to the Branch Councils to consider and report how far it would conduce to a more efficient and satisfactory system of conducting the examination of students in preliminary education, if boards were appointed by the General Medical Council, or by the Branch Councils respectively, to arrange and conduct, under their supervision, these examinations; that, should the Branch Councils approve of such a system, they be requested to state the method by which they would propose to carry it out, or any difficulties which may stand in the way of doing so; and that these reports be transmitted to the Executive Committee at least one month before the next session of the Council."

Proposed by Dr. ALEXANDER WOOD, and seconded by Dr. EMBLETON—"That the Medical Council, while unwilling to come to any resolution that will have the appearance of lowering the standard of preliminary education, is of opinion that the year 1870 will be too soon to transfer Greek from the optional to the compulsory subjects."

Proposed by Dr. ALEXANDER WOOD, and seconded by Dr. RUMSEY—"That the Branch Councils be instructed to consider and report how far it be desirable to add some knowledge of the elements of logic to the preliminary examination of the medical student, and, if considered desirable, how it could best be carried out."

Pharmacy Bill.—The Report of the Pharmacy Bill Committee was read. The Committee stated that, in considering the matter, they had had the advantage of the presence of Mr. Sandford, President, and of Mr. Bremridge, Secretary of the Pharmaceutical Society. They had asked these gentlemen for information as to the reasons of the promoters of the Bill for not adopting the suggestions of the Committee of the General Medical Council on the pharmacy question in 1865. Mr. Sandford and Mr. Bremridge most kindly and frankly met all the questions. The reasons assigned for not extending the Bill to Ireland was, that the Pharmacy Bill of 1852 did not extend to Ireland; that the promoters of the Bill were informed that the dispensing chemists of Ireland were a superior class of men to those in England. The promoters did not object to the extension of the provisions of the Bill to Ireland. It was stated by Mr. Sandford and Mr. Bremridge that it was considered that compulsion on all chemists and druggists to follow the formularies of the *British Pharmacopœia* in compounding prescriptions was not within their jurisdiction, but belonged wholly to higher authorities. They did not object to the insertion of such provision. The extension of privileges to a wider class of unqualified persons was given by Parliament in protection of vested interests; and without such extension the Bill would have no chance of passing through Parliament. Mr. Sandford and Mr. Bremridge stated also that the power to prevent unqualified persons from practising medicine or surgery rested, in their opinion, with a higher authority; that they objected strongly to dispensing chemists practising medicine or surgery; and the Pharmacy Act of 1852 strictly excluded any examination in medicine, surgery, and midwifery. With regard to the sale of poisons, the Committee were informed, in the first place, that the provisions of the Arsenic Act remained a dead letter. They were also informed that opium was included in the first draft of the Bill, but the promoters of the Bill received such strong representations from chemists residing principally in Cambridgeshire, Lincolnshire, and Norfolk, against interfering with their business—opium, as they stated, being one of their chief articles of trade—that the promoters felt compelled to strike opium out of Schedule A; but that Clause 2 of the Bill provided for the addition, from time to time, of any article deemed a poison to Schedule A, with the consent of the Privy Council; and that, at any time, it and any other poisons might be so inserted.

The Committee, in reporting their own conclusions, recommended the introduction of the single word "Pharmacist," for the several terms now used, "Chemist and Druggist," "Compounding Chemist," "Pharmaceutical Chemist, etc."

The Committee stated that there are no such persons in Ireland as Compounding Chemists; the only persons permitted to compound medicines in Ireland are licentiates of the Apothecaries' Hall of Ireland; any other person opening a shop for compounding medicines in Ireland being liable to a fine of £20 for every offence of compounding a prescription, at the prosecution of the Apothecaries' Hall of Ireland.

The Committee was of opinion that provision should be introduced into the Bill by which Pharmacists, duly examined according to the provisions of the Pharmacy Act of 1852, and registered under the proposed Act, should be permitted to open shop in like manner in Ireland as in England, and *vice versâ*, so as to give reciprocity of practising Pharmacy throughout the United Kingdom.

In reference to the introduction of a clause rendering it compulsory on Pharmacists to follow the formulary of the *British Pharmacopœia*, the Committee recommended that a provision should be introduced into the Bill, to render it imperative on all registered Pharmacists to dispense medicine in strict accordance with the *British Pharmacopœia*, unless when otherwise specially directed in written prescriptions. With reference to the provisions of the Bill, which would register indiscriminately every person who might be at the present time engaged even partially in the business of Chemist and Druggist, the Committee strongly objected to such extension; and recommended that the legalised right to dispense medicine should be confined to members of the Pharmaceutical Society, and to such other existing Chemists and Druggists as the Council of that Society might recommend for the privilege of registration. On the question of inserting a stringent clause in the Pharmacy Bill to prevent Pharmacists from practising any branch of Medicine or Surgery, the Committee recommended the addition of words prohibiting any person registered as a Pharmacist "to practise medicine or surgery, or any branch of medicine or surgery."

The Committee were of opinion that Clause No. 1 of the present Bill would sufficiently provide for the regulation of the sale of poisons, if the same power were extended to the General Medical Council as to the Pharmaceutical Society, viz., to represent to the Privy Council what in their opinion should be inserted in Schedule A as poisons. With regard to the omission of opium from the list, the Committee were of opinion that the statement that regulations as to the sale of opium would interfere with the trade profits of druggists in certain parts of England, constituted the strongest grounds for inserting opium in the list of poisons.

The Report was ordered to be received and entered on the minutes; and the discussion on it was adjourned.

MONDAY, JULY 6.

The Council met at 12 o'clock: Mr. CÆSAR HAWKINS, in the absence of the President, in the chair.

Pharmacy Bill.—The consideration of the Report on this Bill was resumed.

A letter from Dr. Gibbon, Secretary of the Parliamentary Committee of the British Medical Association, was read. The letter contained a copy of a resolution in favour of the direct representation of all registered medical practitioners in the Council; and stated that the Committee had applied to the Home Office and the Privy Council to have the Sale of Poisons and Pharmacy Act Amendment Bill referred to a Select Committee of the House of Commons, with a view to place the Schedule of Poisons and the Examination of Pharmaciens (if any) under the control of the General Medical Council. The letter was ordered to be entered on the minutes.

Dr. RUMSEY made some remarks explanatory of the Report, and moved its adoption. This motion was seconded by Mr. HARGRAVE; but was withdrawn on the suggestion of Dr. QUAIN, in order that resolutions founded on the Report might be moved separately.

Sir D. CORRIGAN then proposed, and Dr. STORRAR seconded, motions for the adoption of the word "Pharmacist", and for the establishment of reciprocal privileges between pharmacists in Great Britain and in Ireland. Both proposals were adopted.

Sir D. Corrigan then proposed, and Mr. Hargrave seconded, the addition of words in the Bill to give to the General Medical Council, as well as to the Pharmaceutical Society, the power of representing to the Privy Council what substances should be regarded as poisons. This motion was negatived.

Dr. Rumsey proposed, and Dr. Paget seconded, a proposal for leaving the selection of substances to be classed as poisonous entirely to the Privy Council. This was also lost.

It was agreed unanimously that opium should be inserted in Schedule (A) as a poison.

Sir D. Corrigan proposed, and Dr. Andrew Wood seconded—"That Clauses 3 and 4 be so amended so as to limit the registration of 'Pharmacists,' or 'Chemists and Druggists,' to Members of the Pharmaceutical Society, and to such other existing "Chemists and Druggists' as the Council of that Society may recommend as fit to be placed on the Registry." This motion was carried.

Sir D. Corrigan moved, and Dr. Storrar seconded—"That all 'Pharmacists' should be required to compound Medicines according to the formularies of the *British Pharmacopœia*, unless otherwise specially directed in written prescriptions."

Dr. Quain said that there might be difficulty in carrying out this proposal, as many prescribers did not use the British *Pharmacopœia*. He thought that the Medical Acts already gave the Council sufficient power to enforce the use of the *Pharmacopœia*.

Dr. Andrew Wood said that in Scotland the *British Pharmacopœia* was almost universally employed.

The motion was carried.

It was resolved, on the motion of Sir D. Corrigan, seconded by Mr. Cooper,—"That there should be a clause introduced, to provide that registration under the Act shall not entitle any person so registered to practise medicine or surgery, or any branch of medicine or surgery."

A deputation, consisting of the President, Sir Dominic Corrigan, Dr. Rumsey, Dr. Leet, and Dr. Alexander Wood, was then appointed, and instructed to place without delay before the Home Secretary the resolutions just adopted by the Council, with a copy of the Report. At a subsequent period of the meeting, Sir Dominic Corrigan reported to the Council that the deputation had had an interview with Sir James Fergusson, Bart., Under Secretary of State for the Home Department, and had handed to him the resolutions of the General Medical Council, and that Sir James Fergusson had promised to give the resolutions and report of the Committee his best attention in the progress of the Bill through the House.

Visitation of Examination.—A long Report from the Committee on Observations by the Licensing Bodies and on the report of Visitation of Examinations in 1867-68 was read. The report was received and ordered to be entered on the minutes; and the following resolutions, being repetitions of recommendations contained in the report, were severally proposed, seconded, and adopted, as the opinion of the General Medical Council.

"That it is desirable that the different Licensing Bodies should combine their examinations, when this is practicable, so as to secure that the knowledge of every practitioner, whose name appears on the Register, shall have been tested in all the subjects of professional education which the Council has determined to be essential, viz.:—1, Anatomy; 2, General Anatomy; 3, Physiology; 4, Chemistry; 5, Materia Medica; 6, Practical Pharmacy; 7, Medicine; 8, Surgery; 9, Midwifery; 10, Forensic Medicine."

"That the examination should be both oral and in writing."

"That not less than two examiners, or one examiner with an assessor, should be present at every oral examination."

"That the oral examinations should be so far public as to be open, when practicable, to the medical and surgical graduates, or members of the examining body."

"That the questions to be answered in writing should be so numerous, and embrace such a variety of the details of each subject, as may adequately test the proficiency of the candidate; and that they should be submitted to the body of examiners, or governing body, for consideration, and for revisions, if desirable, before being proposed to the candidates."

"That the written answers should be submitted to more than one of the examiners."

"That excellence in one or more subjects should not be allowed to compensate for failure in others."

"That if a candidate be rejected for failure in any one subject, he should be re-examined in all."

"That examiners should only be elected for definite periods, and be eligible for re-election."

On the proposal of Dr. Alexander Wood, seconded by Dr. Andrew Wood, it was resolved—"That the Registrar be directed to draw up in the usual form the recommendations and opinions of the General Medical Council, in regard both to preliminary and professional education, and that copies be issued to the various licensing bodies." It was moved, that copies of the Observations of the Licensing Bodies upon the Report of the Committee on the Visitations of Examinations; the Reports of Visitations made since the last session of the Medical Council; and the Report of the Committee thereon, be sent to the various licensing bodies, together with the resolutions of the Medical Council thereon.

Returns from Licensing Bodies.—A Report from the Committee on Returns from Licensing Bodies of Professional Examinations and their results, and on the Registration of Students for 1867, was read and entered on the *Minutes*.

In reply to a letter from the Secretaries of the Medical Teachers' Association in reference to registration of medical students, it was resolved on the motion of Dr. Embleton, and seconded by Dr. Alexander Wood—"That a letter be addressed by the Registrar to the Secretaries of the Medical Teachers' Association, to the effect that the Council has only one office of registration for metropolitan students, viz., that at No. 32, Soho Square, and to this no student is obliged to go, as the object can be entirely effected by correspondence. The registration is of two facts only, viz., that a pupil has passed his preliminary examination and has commenced his professional study. The Mediel Council have no authority over the licensing bodies as to registration of students, and the internal regulations of those bodies frequently include many more facts than the above, and some of these are registered at different periods of professional study."

In reference to Dr. Edwards Crisp's letter on the increase of half-qualified practitioners, it was resolved, that a letter be addressed to him, to the effect that it may be advantageous to have an official analysis, under the care of the Registrar of the General Medical Council of the *Medical Register*, such as that made by Dr. Crisp; and that the Council has no power under the Medical Act to interfere with the number and kind of qualifications that practitioners choose.

It having been stated in the Report that certain of the licensing boards in Ireland allow the preliminary examination to be passed after the commencement of medical study, it was resolved on the motion of Dr. Embleton, seconded by Dr. Alexander Wood—"That the Registrar be requested to address a letter to those licensing bodies in Ireland which do not require the preliminary education to be passed before medical study is begun, representing that throughout England and Scotland a complete uniformity has been brought about by the adhesion of the licensing bodies to the recommendation of the General Medical Council in this respect, and that it is highly desirable that students in all the three divisions of the kingdom should be placed on the same footing by the Irish licensing bodies, using every means to obtain the necessary powers to enable them to require that preliminary education and examination, shall be really preliminary to medical study."

State Medicine.—The following preliminary Report for the Committee was presented and ordered to be entered on the minutes—"The Committee on State Medicine beg leave to report to the Council, that, having carefully considered the Resolution of the Council, by which the Committee was appointed on June 27th, 1868, they have decided, with a view to presenting a more complete Report at the next Session of the Council, on taking evidence from various persons having special knowledge of the subject referred to the Committee. Henry W. Acland, *Chairman*."

Ordinary Votes.—The ordinary business resolutions, votes of thanks, etc., were then agreed to.

Resignation and Re-election of Dr. Burrows as President.—A vote of thanks having been unanimously given to the President for his conduct during the Session,

Dr. Burrows acknowledged the vote, and resigned his office as President. The duties had been difficult, especially during the intervals between the Sessions, when he was obliged to act in a great measure on his own responsibility. In these circumstances, he had received very great aid and comfort from the counsels of Dr. Sharpey. There was also much correspondence, in conducting which he had received much valuable aid from the Registrar, Dr. F. Hawkins. With regard to his re-election, he placed himself at the disposal of the Council, and, if re-appointed, would continue to do his duty to the best of his power; but he could not consent to act as President for another term of five years.

Dr. Burrows then retired from the room, and Dr. Paget was called to the chair.

Sir Dominic Corrigan then moved, Mr. Hargrave seconded, and it was unanimously resolved—"That Dr. Burrows be re-elected President of the General Medical Council."

The Session then terminated.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-sixth Annual Meeting of the British Medical Association will be held at Oxford, on Tuesday, Wednesday, Thursday, and Friday, the 4th, 5th, 6th, and 7th days of August next.

President—WM. STOKES, M.D., D.C.L.Oxon., Regius Professor of Physic in the University of Dublin.

President-Elect—H. W. ACLAND, M.D., LL.D., F.R.S., Regius Professor of Medicine in the University of Oxford.

The business of the meeting will be conducted under *five* Sections; viz.:—

Section A. MEDICINE.—*President*, Sir Wm. Jenner, Bart., M.D., F.R.S. *Secretaries*, Dr. E. L. Fox, Clifton; Dr. William Roberts, Manchester.

Section B. PHYSIOLOGY.—*President*, Professor Rolleston, M.D., F.R.S. *Secretaries*, Dr. W. L. Church, London; Professor Beale, M.B., F.R.S., London.

Section C. SURGERY.—*President*, James Paget, Esq., F.R.S., London. *Secretaries*, T. P. Teale, M.A., M.B., Leeds; W. Stokes, jun., M.D., Dublin.

Section D. MIDWIFERY.—*President*, Sir C. Locock, Bart., M.D., F.R.S., London. *Secretaries*, Dr. Wilson, Glasgow; J. G. Swayne, M.D., Clifton, Bristol.

Section E. PUBLIC MEDICINE.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D., Manchester; T. J. Dyke, Esq., Merthyr Tydvil.

Papers shall not exceed *twenty* minutes. All subsequent speakers not to exceed *ten* minutes.

TUESDAY, *August 4th*, 1868.

1 P.M. Meeting of Committee of Council in the Clarendon Buildings, Broad Street.

3 ,, Meeting of General Council in the Convocation House.

7.30 ,, First General Meeting in the Hall of Christ Church.—The retiring President, Professor STOKES, will resign his office.—The new President, Professor ACLAND, will deliver his Inaugural Address.—The Council's Report will be read, and discussion taken thereon.—Election of General Secretary.—Election of Auditors.—Report of Medical Benevolent Fund.—Presentation of Hastings Medal.

WEDNESDAY, *August 5th*.

8.30 A.M. Breakfast of the Association at the Clarendon Hotel. Tickets to be had at the Reception Room.

9.30 ,, Meeting of new Council in the Convocation House.

10.30 ,, Second General Meeting in the Divinity School.—The ppointment of Place of Meeting in 1869, and of the President-elect, will be made.—The Rev. Professor HAUGHTON will read a paper on Sources of Vital and Mechanical Force derived from Food, and its Influence on Medical Practice.—Report of Joint Committee of British Medical Association and of Social Science Association will be read.

2 P.M. Third General Meeting in the Divinity School.—Address in Physiology, by Professor ROLLESTON, F.R.S.

3 to 6 ,, Sectional Meetings.

8.30 ,, The President's *Soirée* at the University Museum.

THURSDAY, *August 6th*.

10 A.M. Fourth General Meeting in the Divinity School.—Proessor HUGHES BENNETT, M.D., will read the Report of the Commitee on the Action of Mercury as a Cholagogue.

11 ,, Honorary Degrees will be conferred in the Sheldonian Theatre.

11.30 to 2. Sectional Meetings.

2 P.M. Fifth General Meeting in the Divinity School.—Address n Medicine, by Dr. GULL.

3 to 6 ,, Sectional Meetings.

7 ,, Dinner of the Association in the Hall of Christ Church. ickets to be had at the Reception Room *only*.

FRIDAY, *August 7th*.

10 A.M. Sectional Meetings.

4 P.M. Concluding General Meeting in the Divinity School.

Gentlemen desirous of reading papers, cases, or any other communiations, are requested to give notice of the same to the General Secreary, at their earliest convenience. All papers should be in the hands either of the General Secretary, or of the President, on or before the 1st of August; and notice should be immediately given to one of the Secretaries of the Section to which the paper belongs.

A room will be opened in the Town Hall as a Reception Room, on Tuesday, August 4th, at 10 A.M., and on the following days at 8 A.M., for the issue of tickets to members, and for supplying lists and prices of lodgings, and other information.

The Library, Writing- and News-rooms of the Oxford University Debating Society, in Frewen Court, Corn Market, will be open to all members of the Association during their stay.

All Gentlemen intending to visit Oxford during the meeting are requested to send their names without delay to E. Chapman, Esq., M.A., Frewen Hall, Oxford.

The following notices of motion have been given.

The SECRETARY: To alter Law XIV by adding, "provided he shall have the votes of three-fourths of those present at such meeting."

Dr. DAVEY: To alter Law VIII, by substituting the word "twenty" for "ten" members, to be elected members of the Committee of Council.

Dr. ALEXANDER HENRY: "That the following be substituted for Law III; viz., The Association shall consist of Ordinary Members, being duly qualified members of the Medical Profession, and of Honorary Members having the qualifications described in Law XVIII." "That the following be substituted for Law XVIII; viz., Honorary Members may be elected by the Association at an Annual Meeting, on the recommendation of the Council. The following classes of persons shall be eligible: *a.* Members of the Medical Profession, of scientific eminence, residing in the United Kingdom, or in the Colonies or Foreign Countries; *b.* Gentlemen resident in the United Kingdom, or in the Colonies or in Foreign Countries, not belonging to the Medical Profession, but distinguished in Sanitary or in Physical Science; *c.* Gentlemen who may have rendered distinguished service to the Association. Honorary Members shall not be entitled to any further privilege than that of attendance at the Annual Meetings, and to the receipt by any such Member of copies of any memoir or communication of his printed by the Association."

The Rev. Dr. BELL: "That it is desirable to secure a Local Treasurer for the District of each Branch Association (the Secretary or Treasurer of the Branch might be the best suited if it could be so arranged), to whom the Subscriptions of Members might be paid; and that the gross amounts received should be forwarded to the General Treasurer, and not to the General Secretary, as is now done; and that the list of paid Subscriptions might be published on the JOURNAL, instead of separate receipts being given."

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.

13, Newhall Street, Birmingham, July 1868.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held in London, June 30th, 1868.

PRESENT:—Dr. Sibson, F.R.S. (in the Chair); Dr. Acland; Mr. Bartleet; Mr. T. H. Bartleet; Mr. Cordy Burrows; Mr. Ceely; Dr. Falconer; Mr. Fowler; Dr. Holman; Dr. Jeaffreson; Mr. May; Dr. Simpson; Mr. Heckstall Smith; Mr. Southam; Dr. Stewart; Dr. Stokes; Dr. E. Waters; Dr. Wilkinson; and Mr. T. Watkin Williams, General Secretary. Mr. Chapman, Honorary Local Secretary at Oxford, also kindly attended the meeting.

The following resolutions were adopted.

1. That the Programme as altered be approved, and published in the JOURNAL.

2. That the cordial thanks of the Committee of Council be given to Mr. Nunneley for his attendance to present a Requisition from the Medical Profession of Leeds, to meet in that Town in 1869.

3. That a Subcommittee be appointed to consider a Letter from Dr. Storrar, on the subject of Secondary Education; viz., the President of Council, the Treasurer, the General Secretary, Dr. Jeaffreson, Mr. Burrows, Dr. Wilkinson, and Dr. Holman.

4. That the Nomenclature of Disease, published by the College of Physicians, be recommended to the profession for general adoption.

5. That the Draft Report now read be referred to the President of Council, the Treasurer, and the Secretary.

6. That New Members be admitted for the remainder of this year on payment of Half-a-Guinea.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.

13, Newhall Street, Birmingham, July 6th, 1868.

READING BRANCH.

THE Annual General Meeting of the above Branch will be held in the Council Chamber, Reading, on Wednesday, July 15th, at 5 o'clock.

SOUTH MIDLAND BRANCH: ANNUAL MEETING.

THE twelfth annual meeting of this Branch was held at Bedford, in the Board room of the Trustees of the Harpur Charity, on Thursday, June 18th, at 1 P.M.; C. E. PRIOR, M.D., President in the chair. Thirty members and visitors were present.

The minutes of the last meeting were read by Dr. BRYAN, Honorary Secretary.

The Report of the Branch stated that it was in a thriving condition, numbering ninety-three members; being nine more than in the previous year (allowance being made for deaths and secessions). The funds in hand amounted to £5 : 12. One member, Mr. F. Cox, of Welford, had died since the last autumnal meeting.

Officers and Council.—It was proposed by Dr. FRANCIS, seconded by Dr. PRIOR, and carried unanimously, that Wm. Newman, M.D., Stamford, be the President-elect for 1868-9.

Dr. WOAKES proposed, Dr. PRIOR seconded, and it was carried unanimously, that the following gentlemen, with the President, President-elect, and Honorary Secretaries, form the Committee of Management: F. Buszard, M.D.; C. J. Evans, Esq.; W. G. Johnson, Esq.; E. Lawford, M.D.; W. Moxon, Esq.; W. A. Southam, Esq.; H. Terry, jun., Esq.; and H. Veasey, Esq.

As representatives in the General Council were elected, on the nomination of Dr. WOAKES, seconded by Mr. VEASEY, and carried unanimously: R. Ceely, Esq.; D. J. T. Francis, M.D.; W. Paley, M.D.; H. Terry, jun., Esq.; R. W. Watkins, Esq.; and J. M. Bryan, M.D., Secretary (*ex officio*).

Dr. Bryan and Mr. Goldsmith were unanimously re-elected Honorary Secretaries; and Dr. Bryan was re-appointed Treasurer.

Dr. Bryan was also elected the representative in the Parliamentary Committee of the Association.

New Members.—The following gentlemen were proposed by Dr. PRIOR, seconded by Mr. GOLDSMITH, and elected unanimously: G. Robinson, Esq.; P. Morris, Esq.; R. D. Hacon, Esq.; Ethelbert Blake, M.D.; Edward Howard, Esq.—all of Bedford. James Shaw, Esq.; and James Carruthers, Esq., Northampton Infirmary, were proposed by Dr. BRYAN, seconded by Mr. TERRY, and elected.

Autumnal Meeting.—It was proposed by Mr. VEASEY, and seconded by Dr. WOAKES, and carried, that the autumnal meeting be held at Luton in September.

President's Address. —Dr. PRIOR delivered an address.

Papers.—The following papers were read and discussed. 1. Discussion upon "The Contagion of Phthisis".—2. Short Notes on Intestinal Obstruction. By Wm. Newman, M.D.—3. Some Cases of Interest in the Bedford Infirmary. By W. G. Johnson, Esq.—4. Suggestions for Extending the Usefulness of the South Midland Branch. By E. Woakes, M.D.—5. Sphacelus of the Hand from Septic Poisoning, with Latent Scarlatina. By H. Veasey, Esq.—6. Case of Poisoning by Chloride of Antimony. By C. J. Evans, Esq.—7. On Traumatic Stricture. By Christopher Heath, Esq.

Votes of Thanks. The meeting terminated at 3.50 P.M., with a vote of thanks to the President, Dr. Prior; also to the authors of papers.

Dinner at 4, P.M.—Gentlemen adjourned to the Swan Hotel, where twenty-two dined, under the presidency of Dr. Prior, with Dr. Bryan in the vice-chair. The usual loyal and other toasts were drank and responded to, due acknowledgment being made of the services of the officers and the presence of visitors, and the company separated about 7.30, after a most successful, agreeable, and instructive meeting.

LANCASHIRE AND CHESHIRE BRANCH: ANNUAL MEETING.

THE thirty-second anniversary of the Lancashire and Cheshire Branch was held in the Royal Institution, Manchester, on June 19th, at half-past twelve. In the absence of JOHN HARRISON, Esq., of Chester, president for the past year, Dr. W. ROBERTS took the chair, and introduced GEORGE MALLETT, Esq., of Bolton, the president-elect.

Mr. MALLETT gave an interesting address illustrating the mode in which medical practice had been rendered milder by increasing scientific knowledge.

Report.—Dr. SIMPSON (honorary secretary) read the following report. The Council of the Lancashire and Cheshire Branch of the British Medical Association congratulate the members on holding their thirty-second anniversary in the city of Manchester. The past year, if not eventful, had been one of prosperity and progress. Notwithstanding the loss of twenty-one members, eight of whom have died, the printed list, which, at the meeting in Chester, included 223 names, has now advanced to 252, representing an accession of 50 members since last year. There are still, however, many members of the Parent Association who have not as yet joined the Branch, and it is desirable to impress on these gentlemen the advantage of having so close a bond of union for the profession in the two counties as that which this Branch affords. Individual effort on the part of each member might double their numbers in the two counties in twelve months; and it must be borne in mind that in thus recruiting for the Association they would be conferring a benefit on all who should enter its ranks. In the early part of the year, a communication was received from the Parliamentary Committee of the Metropolitan Counties Branch, calling the attention of the Council to a resolution of the General Council at the annual meeting of the Parent Association, held last August in Dublin, recommending that a grant of £10 should be made towards the expenses of the Parliamentary Committee, elected by the Metropolitan Counties Branch, and that the Committee should be increased by the addition of one member from every branch of the British Medical Association. In accordance with this resolution, the Council unanimously elected Dr. Desmond, of Liverpool, as the representative of the Lancashire and Cheshire Branch. The Council also appointed a Branch Parliamentary Subcommittee. The following five gentlemen, W. T. Callon, M.D. (Liverpool), T. Davies-Colley, M.D. (Chester), Mr. J. P. Langshaw (Lancaster), D. H. M'Nicoll, M.D. (Southport), and Mr. A. B. Steele (Liverpool), retire by rotation; but, with the exception of Dr. M'Nicoll, whose recent death has caused a blank which those who have taken an interest in the Association cannot but feel, are eligible for re-election. Dr. Simpson added that, in consequence of the resignation of Dr. Nevins, Liverpool, a sixth vacancy was caused on the Council, which would require to be filled up.

Financial Statement.—At the date of the last annual meeting, the balance in hand was £33 : 3; subscriptions received since £27, making a total of £60 : 3. The ordinary expenses of the Branch during the past year had been £22 : 13 : 7½, leaving in the hands of the Secretary a balance of £37 : 9 : 4½.

On the motion of Dr. WATKINS, Newton, seconded by Dr. SAMELSON, Manchester, the report was adopted.

Vote of Thanks.—It was moved by Mr. R. T. HUNT, seconded by Mr. WALSHE, and carried unanimously, "That the best thanks of this meeting be given to John Harrison, Esq., the retiring President; to Thomas Brittain, Esq., and Dr. W. Roberts, the retiring Vice-presidents; to the Honorary Secretaries; and to the other members of the Council for their services during the past year."

Next Annual Meeting.— Mr. A. B. STEELE (Liverpool) moved that the next annual meeting of the Branch be held at Lancaster; that Mr. Langshaw (Lancaster) be appointed president-elect, and Dr. Hall (Lancaster) and Mr. M'Cheane (Liverpool) be appointed vice-presidents elect.—Dr. E. BOWEN (Birkenhead) seconded the motion, which was unanimously adopted.—Mr. JOHNSON (Lancaster), on behalf of the members resident in Lancaster, thanked the Branch for the honour conferred on them, and assured the members who might attend the next annual meeting of a cordial reception.

Local Secretaries.—Dr. SIMPSON moved, and Dr. A. T. H. WATERS seconded—"That Mr. Manifold, of Liverpool, and Mr. Johnson, of Lancaster, be appointed Honorary Local Secretaries." This was carried unanimously.

Election of Council.—Six gentlemen, whose names are marked by asterisks, were then elected to fill up the vacancies on the Council, which is now composed of the following twenty members:—E. Bowen, M.D., Birkenhead; *W. T. Callon, M.D., Liverpool; S. Crompton, M.D., Manchester; E. D. De Vitre, M.D., Lancaster; *T. Davies-Colley, M.D., Chester; L. E. Desmond, M.D., Liverpool; R. Flint, Esq., Stockport; John Harrison, Esq., Chester; R. Harrison, Esq., Liverpool; *Thomas Howitt, Esq., Lancaster; Ellis Jones, Esq., Liverpool; C. Johnson, Esq., Lancaster; *J. P. Langshaw, Esq., Lancaster; G. Mallett, Esq., Bolton; W. M'Cheane, Esq., Liverpool; J. M'Naught, M.D., Liverpool; J. E. Morgan, M.D., Manchester; A. Ransome, M.D., Bowdon; *A. B. Steele, Esq., Liverpool; *J. Thorburn, M.D., Manchester.

Representatives of the Branch in the General Council.—The following gentlemen were appointed to represent the Branch in the General Council: T. Davies-Colley, M.D., Chester; L. E. Desmond, M.D., Liverpool; John Harrison, Esq., Chester; George Mallett, Esq., Bolton; T. Mellor, Esq., Manchester; W. Roberts, M.D., Manchester; G. Southam, Esq., Manchester; A. B. Steele, Esq., Liverpool; T. Turner, Esq., Manchester; J. Vose, M.D. Liverpool; E. Waters, M.D., Chester; A. T. H. Waters, M.D., Liverpool; M. A. E. Wilkinson, M.D., Manchester; with the Honorary Secretary *ex-officio*.

Dr. ROBERTS called attention to the mode of returning members to the Council of the Association. At present members could only be returned by branches, and, as in England itself many members of the Parent Association did not join the branches, they were not represented in the General Council at all. No branches existed in Scotland or in Ireland; and the medical faculties of these two countries, though many were members of the Association, were not represented on the Council. With a view to the adoption of some plan which might remedy this defect in the constitution of the General Council he proposed the following resolution. "That inasmuch as under the present method of electing a General Council, a large number of members, amounting to about one-third, are not represented on the Council, this Branch is of opinion that the attention of the Committee of Council should be directed to the subject, with the view of considering the desirableness of nominating a certain number of the Council independent of the branches."

Dr. DAVIES-COLLEY seconded the resolution.

Dr. A. T. H. WATERS, though supporting the resolution, expressed his opinion that it was highly desirable that all members of the Parent Association should constitute themselves members of some Branch, a view which was supported in a short discussion which followed, at the conclusion of which the resolution was adopted.

Communications, etc.—The following communications were made. 1. Dr. Braidwood read a paper on the Utility of certain Scientific Instruments, particularly the Microscope, the Laryngoscope, and the Ophthalmoscope, in general practice.—2. Mr. Southam showed a case of the Excision of the Os Calcis.—3. Mr. F. A. Heath showed a case of Amputation at the Hip-Joint, and a case of Excision of the Wrist.—4. Dr. Braidwood exhibited a Long Splint.—5. Dr. Thorburn showed some new Cephalotribes.—6. Dr. H. Simpson showed some cases of Laryngeal Disease, with the aid of the Laryngoscope.—7. Mr. Turner gave an account of six years' additional experience of the use of Carbolic Acid.—8. Dr. Braidwood also exhibited a series of beautiful Microscopic Preparations illustrating the Histology of the Nervous System, which were arranged for inspection in the library of the Royal Institution. Mr. Dancer kindly lent several microscopes for the occasion, and Mr. Wood, the surgical instrument maker, exhibited a large and beautiful collection of recent instruments.

Dinner.—After the conclusion of the meeting, many of the members dined together at the Clarence Hotel.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ANNUAL MEETING.

THE fourteenth annual meeting of this Branch was held at the Hen and Chickens Hotel, Birmingham, on June 19th, at 3 P.M. There were present, C. A. NEWNHAM, Esq., President of the Branch, in the Chair; Dr. Sibson, President of the General Council; Dr. Jeaffreson, Vice-President of the Association; and more than forty members of the Branch.

Report of Council.—Mr. BARTLEET, Honorary Secretary, read the following Report.

"Your Council have much pleasure in reporting the continued and increased success of the Birmingham and Midland Counties Branch of the British Medical Association. The number of the members of the Branch has much increased. During the past year, six members have been lost to the Branch—two by death, Dr. Fayrer of Henley-in-Arden, and Dr. Steell, late of the General Hospital, both of whom were most active supporters of the Branch, and will be much missed. Sixty-three new members have been elected into the Branch, which now contains 216 members, a number considerably larger than at any previous period of its existence. The success of the past session has not consisted only in a large accession to our numbers. During the year, six ordinary general meetings, one special general meeting, and the annual meeting, have been held. The hour of meeting—viz., 3 o'clock P.M.—has been adhered to, it is believed, considerably to the convenience of the members of the Branch.

"The papers, discussions, and cases brought before the Branch have caused much interest, as will be presumed from the large attendance of members, the average for the year being rather in excess of forty-two per meeting." [The Report here contained a list of the papers read at he meetings. The titles have already appeared in the JOURNAL.]

"Many interesting papers have of necessity been delayed until next session.

"The subject of the Remuneration of Medical Officers to Sick Assurance Societies has occupied much the attention of the Branch. Its consideration was introduced by Dr. Heslop at our last annual meeting, and was ultimately referred to a Committee presided over by Mr. Newnham. The Committee presented to a special general meeting of the Branch, in December last, an elaborate Report, which, your Council believe, has produced, and will continue to produce, much benefit to the members of our profession, and also to the public at large.

"A cognate subject, that of Gratuitous Medical Services, likewise awakened active discussion.

"Your Council are glad to be able to record the continued increase in influence and in numbers of the British Medical Association. Last year, over seven hundred new members were elected; and, as yet in this year, over five hundred new members have been added to the Association. Moreover, at the present time, a new Branch is in process of formation at Carlisle.

"Your Council notice with gratification the successful management of the BRITISH MEDICAL JOURNAL. It is satisfactory to learn that its increased importance in a commercial point is commensurate with its advancing literary and scientific position. Upwards of four thousand copies are now circulated weekly to members of the Association and general subscribers.

"The Association is following up its endeavours to secure a Representation of General Practitioners in the General Council of Medical Education; and, at the end of this month, a deputation from the Committee of Council of our Association will urge the importance of this step upon the General Medical Council.

"In conclusion, your Council are glad to state that there is every reason to suppose that the coming session of the Birmingham and Midland Counties Branch will at least equal its predecessors in interest and success."

Treasurer's Report.—Mr. WATKIN WILLIAMS read the Treasurer's report, which showed a balance of £22 : 8 : 6 in favour of the Branch.

Votes of Thanks were passed to the retiring officers.

Officers and Council.—The following gentlemen were elected to fill the various offices in the Branch during the ensuing year:—*President-elect:* James Vose Solomon, Esq. *Members of Council:* (Country) T. A. Carter, M.D., Leamington; J. S. Gaunt, Esq., Alvechurch; G. E. Hyde, Esq., Worcester; W. J. Kite, Esq., West Bromwich; J. Manley, Esq., West Bromwich; J. J. Nason, M.B., Stratford-on-Avon; H. E. F. Shaw, Esq., Sutton Coldfield; T. Underhill, Esq., Tipton; (Town) A. Baker, Esq.; C. J. Bracey, M.B.; M. H. Clayton, Esq.; B. W. Foster, M.D.; Sampson Gamgee, Esq.; Furneaux Jordan, Esq.; T. Swain, Esq.; W. F. Wade, M.B. *Representatives in the General Council of the Association:* A. Baker, Esq.; E. Bartleet, Esq., Campden; S. Berry, Esq.; H. D. Carden, Esq., Worcester; M. H. Clayton, Esq.; G. Jones, Esq.; J. Manley, Esq.; C. A. Newnham, Esq.; J. Russell, M.D.; J. V. Solomon, Esq.; T. H. Bartleet, M.B. (*ex officio*). *Treasurer:* T. Watkin Williams, Esq. *Honorary Secretary:* T. H. Bartleet, M.B.

President's Address.—Mr. NEWNHAM, the President, delivered an interesting address.

Dinner. Nearly forty members of the Branch dined together after the meeting; Mr. Newnham occupying the Chair, and Mr. Vose Solomon the Vice-chair.

MIDLAND BRANCH: ANNUAL MEETING.

THE seventeenth annual meeting of the above Branch was held in the Board Room of the General Hospital, Nottingham, on Tuesday, June 23rd. There were about thirty members of the Branch and several visitors present.

The chair was taken, at a quarter before three P.M., by the President for the year, JOSEPH THOMPSON, Esq., Surgeon to the General Hospital, who delivered an excellent address on the objects and position of the Association, and on various points of interest connected with the recent advancement of medical and surgical science.

New Members.—The following gentlemen, who have recently been elected members of the Association, were unanimously elected members of the Branch: C. Bateman, Esq., East Bridgeford; J. Broadbent, Esq., Collingham; J. Butler, Esq., Beeston; E. Bland, M.D., Sandiacre; C. Calvert, Esq., Southwell; G. Grewcock, Esq., Nottingham; S. Job, Esq., Newark-on-Trent; A. G. Mickley, Esq., Nottingham; F. H. Parsons, M.D., Nottingham; J. Souter, M.D., Nottingham; T. A. Stephenson, Esq., Nottingham.

Representatives in the General Council.—The following gentlemen were elected Representatives of the Branch in the General Council of the Association. *Nottinghamshire*—Joseph Thompson, Esq.; W. T. Robertson, M.D. *Derbyshire*—H. Goode, M.B., J. W. Baker, Esq., *Leicestershire*—John Barclay, M.D., C. H. Marriott, Esq., Thomas Paget, Esq. *Lincolnshire*—G. Mitchinson, L.K.Q.C.P., Thos. Sympson, Esq., E. Morris, M.D.

Secretaries.—The following were re-elected Secretaries of the Branch:—*Nottinghamshire*—Joseph White, Esq.; *Derbyshire*—A. H. Dolman, Esq.; *Leicestershire*—J. Sloane, M.D.; *Lincolnshire*—C. Harrison, M.D.

Next Meeting.—It was resolved that the next meeting be held in Leicester; and that T. W. Benfield, Esq., Senior Surgeon to the Leicester Infirmary, be the President-elect.

Communications.—The following communications were then read and discussed. 1. Ligature of Common Carotid for Aneurism. By A. H. Dolman, Esq., Derby.—2. Hydatid of Lung occurring in a Tuberculous Subject. By T. Sympson, Esq., Lincoln.—3. The use of the Turkish Bath in Albuminuria. By E. Morris, M.D., Spalding.—4. Notes of the use of the Sphygmograph. By W. H. Ransom, M.D., Nottingham.—5. Observations suggested by the Study of Cases of Cataract-Extraction. By C. Taylor, M.D., Nottingham.—6. The Treatment of Fractured Clavicle by means of a Splint. By G. Grewcock, Esq., Nottingham.—7. Mr. Baker of Derby also introduced a patient, in whom he had tied the External Iliac Artery for Aneurism.

Dinner.—The members of the Branch and several visitors afterwards dined together at the George Hotel, under the presidency of Joseph Thompson, Esq.

EAST ANGLIAN AND CAMBRIDGE AND HUNTINGDON BRANCHES: ANNUAL MEETING.

THE annual meeting of the above Branches was held at the Town Hall, Great Yarmouth, on Friday, June 26th; Dr. VORES, President, in the chair.

Mr. ROSE was called to the chair; and, after making a few appropriate remarks in reference to the lamented death of Dr. Hawkins, the late President, he briefly introduced Dr. VORES, who read a very interesting address.

Report of Council.—The Secretary, Dr. PITT of Norwich, read the Annual Report of the Branch Council. The Council congratulated the members on assembling again in Yarmouth; and considered it a duty to express their satisfaction with the manner in which the JOURNAL continued to be conducted, and likewise with the gradual increase of members.

Resolutions.—The following resolutions were passed.

1. Proposed by J. C. SMITH, Esq., Great Yarmouth, and seconded by D. MEADOWS, Esq.—"That the thanks of this meeting be given to the Members of the Council and the Honorary Secretaries for their services during the past year."

2. Proposed by Dr. DURRANT (Ipswich), and seconded by C. PALMER, Esq. (Yarmouth)—"That the Members of the Council of the East Anglian Branch and Honorary Secretaries be re-elected; and also the Members of Council and Honorary Secretary of the Cambridge and Huntingdon Branch."

3. Proposed by Dr. LATHAM (Cambridge), and seconded by H. STEAR, Esq. (Saffron Walden)—"That the next annual meeting of the East Anglian Branch be held, in conjunction with the Cambridge and Huntingdon Branch, at Cambridge; and that W. W. Fisher, M.D., Downing Professor of Medicine, be elected President."

4. Proposed by H. STEAR, Esq. (Saffron Walden), and seconded by Dr. VORES—"That, in the opinion of this meeting, it is expedient that a Committee should be appointed in Section E, at the annual meeting at Oxford, to draw up a recommendatory tariff of medical fees and club remuneration."

5. Proposed by Dr. LATHAM, and seconded by Dr. CHEVALLIER (Ipswich)—"That H. Stear, Esq., be requested to bring the preceding resolution before the meeting at Oxford."

Papers.—The following papers were then read. 1. Dr. Smyth of Yarmouth: Foreign Bodies in the Air-passages. This paper elicited an interesting discussion by Mr. Cadge, Dr. Eade, Mr. C. Palmer, Mr. Adams, and Mr. Allen. 2. Mr. C. Palmer: Statistics of Lithotomy at the Great Yarmouth Hospital; with specimens. A discussion followed, in which Mr. Cadge and Mr. Meadows took part. 3. Mr. Cadge: Intestinal Obstruction. This paper caused a discussion by Dr. Copeman, Dr. Durrant, Dr. Vores, Dr. Latham, Dr. Chevallier, Mr. Crosse, and Mr. Clouting, in which some difference of opinion was expressed about the use of the long tube in such cases.

Thanks.—The thanks of the meeting were then given to the readers of papers, hoping they would allow them to be published. A vote of thanks was passed to the President, and also to the Mayor for the use of the Town Hall, and the meeting separated.

Dinner.—The members and visitors, including the Mayor of Yarmouth, afterwards dined together at the Royal Hotel, under the able presidency of Dr. Vores; Dr. Pitt officiating as Vice-President.

CORRESPONDENCE.

SCHEME FOR AN ANNUAL MUSEUM.

SIR,—As our next Association annual meeting is drawing near, I wish to make a suggestion which, if carried out, will, I think, much increase its interest and usefulness. It is, that we should ask our Oxford friends to provide us with a room for the exhibition, under proper care, of objects of professional interest collected during the year. If a committee were appointed to arrange the matter, I feel sure that a very valuable annual exhibition might be got up. In it we might collect all new inventions in the way of instruments, of mechanical apparatus, casts, wax models, photographs, drawings, and even, in some instances, pathological specimens of unusual interest and rarity. It ought to be a rule to be observed with the utmost strictness, and everything exhibited should have appended to it a clearly written and concise description. Should the plan prove successful, I feel sure that a busy man might learn more in such a museum in an hour than he could by far longer and much more wearisome attendance in the section rooms. Here he would find the cream of the year's progress, and with perfect liberty to select what interested him, and to skip the rest, and to examine all at his leisure. The exhibition ought to be open through the whole time of the meeting; and a catalogue ought to be kept and produced from year to year. A synopsis of the catalogue might, perhaps, be worth publication in the JOURNAL.

There can be little doubt, as regards new instruments, that everything valuable would find its way to such an exhibition. In reference to some of the other departments, the scheme might perhaps require a little cultivation, and would, no doubt, improve from year to year. At our smaller provincial hospitals, and in private practice, there is a large amount of work done, the results of which are but too frequently lost. Many a specimen is exhibited before a small local society, and then put by in a cupboard, which was worthy of a better fate. Many a new observation might become widely known and accurately appreciated at an early period, could a good public opportunity be afforded for the investigation of the facts, etc., on which it rests. If Dr. Addison could have placed under the investigation of the whole profession the drawings, specimens, etc., by which his great discovery was illustrated, how much more rapidly would it have gained general attention, and how many misconceptions would have been avoided. I suppose that during the last year, at almost every hospital, a few drawings and a few specimens have been collected, illustrating the important subject of syphilitic disease of internal organs. If all of these, or a third of them, could be brought into juxtaposition for a few days, they would constitute a collection without rival in any single museum, and one of the utmost value to the pathologist and clinical worker. If the casts, drawings, etc., of rare skin-dissases, done during the past year, could be got together, they would, I have no doubt, have the effect of settling some moot questions, and preventing considerable waste of ink. It is by seeing the things themselves, or, if that be not practicable, the best possible representations of them, that we may hope to understand each other in our discussions, and to profit to the full extent by each other's work. An annual museum or exhibition of the kind indicated would, I think, do a great deal in this direction, and would be well worth a little expenditure both of energy and money. Our Association offers the machinery ready to hand; and I therefore beg to recommend the scheme to the attention of our Council and of the members generally.

I am, etc., JONATHAN HUTCHINSON.

Finsbury Circus, E.C., June 1868.

⁂ This suggestion we think of great value, and hope it may be acted upon.

OUT-PATIENT HOSPITAL PRACTICE.

SIR,—The scheme so ably conceived and described by Dr. Sieveking in the JOURNAL of June 13th, is no novelty, except in some of its details. It is, in fact, a proposal to unite the dispensary and the hospital systems, with certain modifications in each. It will, perhaps, be interesting to your readers to know that this very scheme was put into practice some years ago by myself, and I believe also by my predecessors and colleagues at King's College Hospital, with a very fair amount of success.

From the commencement of my appointment as Assistant-Surgeon at that hospital, in 1862, I began to place the more serious and more remarkable cases under the surveillance of one or other of the dressers; and, in those cases that required visiting at the patients' homes, I either went myself, or sent a dresser who volunteered his services. In this vay I have treated cases that could not otherwise have been treated as ut-patients, such as fractures of the thigh in children, sprained ankles, njuries of the lower limbs of various kinds, disease of the hip-joint, nee-joint, and foot, and many others in which operations had been erformed, but which, for various reasons, could not be admitted as in-atients. I always found that the pupils took great interest in the atients that required visiting; and I rarely had any difficulty in getting olunteers for this duty, though the dressers of my out-patients were nost of them first and second years' men, and therefore much occupied n attendance upon lectures and dissections.

I quite agree with Dr. Sieveking that it would be very desirable for he senior students to undertake the visiting and clinical observation of ut-patients; and I think that, for the surgical side of the out-patient lepartment, his scheme would be as profitable to students, teachers, nd patients, as it would be to the medical side. I am, etc.,

W. SPENCER WATSON.

27, Montague Street, Russell Square, June, 1868.

THE NEW BRANCH.

SIR,—Having been unable to address you at the time that I noticed n the JOURNAL that a Branch of the British Medical Association was eing formed for the counties of Cumberland and Westmoreland, I now eg to offer my congratulations on this matter. I do so the more eartily, because I was always anxious that something should be done n this quarter; and many years ago (I think at the Manchester meet-ng), I urged upon Sir Charles Hastings and others the good that might ccrue if one of the annual meetings could be held in Newcastle or Carlisle. The former has now a thriving Branch, and the latter seems ikely soon to have the same.

I venture to suggest that it would be a great means of encouraging the rowth of the Branches of the northern counties were an annual meeting eld as early as possible either in Newcastle or Carlisle. I need scarcely emind the members of the Association—for they know well—how nuch I have had the extension of our Association at heart, not only vhen I was practising the profession of medicine, but since I have been ngaged in a holier calling. But I do wish to tell them emphatically, hat I shall never feel satisfied until every county has its members in arge numbers. I have ever maintained, and do still maintain, that it as been the grand means of bringing about all the real reforms in the rofession; and few things give me greater pleasure than the reflection hat I battled with success for the change of name from Provincial to British Medical Association. The Association could never have ex-anded as it has done, nor been of such influence, had it continued to e "The Provincial". Let our motto be—"Virtus et perseverentia mnia impedimenta postremo vincent", and there remains for us a bright ture. I am, etc., DAVID BELL, M.D.

REPRESENTATION OF THE PROFESSION IN THE MEDICAL COUNCIL.

SIR,—You would much oblige me by correcting an error in the re-ort of a speech made by me at the Medical Council on Wednesday st. I would not trouble you with this request, had not your reporter o doubt inadvertently) made me say exactly the *opposite* of what I did y. He represents me as objecting to the proposed schemes for the irect representation of the profession, that they would occasion "a ability to a preponderance (in the Medical Council) of English mem-ers over those of Scotland and Ireland." What I said was directly e reverse. I showed, by reference to the numbers of registered practi-oners resident in England, Scotland, and Ireland respectively, that the roportions of representatives proposed by the Subcommittee of the ritish Medical Association would be unfair to *England;* that their heme would be at the rate of one representative to about nine hun-red Scotch practitioners, and only one to more than three thousand nglish practitioners; and I protested against a scheme which would ake a vote north of the Tweed three times as influential as one south the Tweed. My objections to Dr. Andrew Wood's scheme were milar, though less in degree. I am, etc.,

Cambridge, July 4th, 1868. G. E. PAGET.

STATE MEDICINE.

SIR,—As an old labourer in the field of sanitary reform, allow me a rner to express my concurrence in the views so ably enunciated by r. Rumsey in your last issue. Without wishing in any way to dero-te from the general fitness of every properly educated practitioner to lfil most of the duties which the exigencies of state medicine call upon him to perform, it must be allowed me to aver that he is often placed in a very awkward and invidious position with regard to the public on the one hand, and his immediate employers on the other, whenever questions of what is called state or forensic medicine arise. I may cite the union medical officer as the local medical officer of health, who is also engaged in private practice, as cases in point. "It will be found," says Dr. Rumsey, "that wherever the officer of health or medical jurist has withdrawn from private engagements—and just in proportion to the degree in which his public duties have superseded his attention to ordinary practice—so has he become a more efficient and valuable public servant." Just so. And I can bear testimony to the obstacles which the supposed candidature of a practitioner residing in the same town with the authorities who have an appointment at their disposal will meet with, not so much from the professional jealousy of his medical brethren, as from that of bumbledom in authority, which think nothing good which is of home growth.

It is a curious illustration how projects may fail from being before the age in which they are conceived, when I state that the very plan, in all essentials at least, which is now so ably advocated by Dr. Rumsey and his London collaborateurs was sketched out by myself and published in the *Medical Gazette* 1845, at a time when I was getting up evidence for the first Health of Towns Act. It will be found, by any one taking the trouble to look up the volume for that year, that I proposed dividing the country into districts, taking the unions as units, for the operation of a sanitary officer. That officer to be the adviser or friend of the union medical officer, and, if possible, should himself perform the duties of superintending registrar; or, at all events, should be in weekly communication with that officer, so as to pounce at once upon any spot in his district in which the rate of mortality or of sickness should be shown to be in excess of the average. He was also to attend coroners' inquests for the purpose of giving advice, or making an analysis in difficult cases. It must be evident that such duties could not be efficiently carried out by any man engaged in the arduous and anxious routine of general practice. I am, etc.,

Worcester, June 1868. WM. STRANGE, M.D.

SIR,—It is satisfactory to observe that Dr. W. T. Gairdner—the only medical officer of health, I believe, who joined the recent deputation of social science and amateur state physicians on this subject—repudiates the leading idea of these gentlemen; viz., to have a separate class of doctors as health-officers, differently trained, differently examined, differently styled, and differently graduated. And, what is more mischievous than all, these great authorities would utterly divorce the physicians who have charge of the health of districts from the charge of the health of individuals and families.

From their speeches, one would infer that Drs. Rumsey, Acland, and Stewart really believed that the elements of health, the etiology and pathology of disease, in a community, differed *toto cœlo* from those in the individual. Argument on such a question is superfluous. I will, like Dr. Gairdner, content myself by saying that, if I am to be debarred from all practical acquaintance with physiology, and with the pathology and causes of disease, in order to become a "state mediciner", it will, I think, be far better for my district and myself that they should have no medical officer of health at all.

As the unity of the noble profession of physic is threatened with a further disintegration in the shape of a state medicine diploma, I pray the profession, especially the General Medical Council, seriously to ask themselves, What good have the dental, midwifery, and surgical diplomas done the profession? The degree of Mastership in surgery was adopted in the University of Cambridge against the judicious and reasonable protest of the Professor of Physic; and now we have the Oxford Professor himself agitating for an additional degree or diploma in state medicine. The Medical Council are now called upon to decide which of these accomplished professors is right. It was said that some of these special diplomas were instituted by the medical corporations for fiscal purposes. It is to be hoped that the Medical Council is in a position to disregard any such considerations. I am, etc.,

June 1868. A MEDICAL OFFICER OF HEALTH.

THE ELECTION OF ASSISTANT-SURGEON TO THE CHILDREN'S HOSPITAL.

SIR,—Will you allow me space to set you right with reference to the circumstances attending the appointment of Mr. Marsh to the post of Assistant-Surgeon to the Children's Hospital.

I must first, however, beg leave to premise that all appointments to medical offices are made by the Managing Committee from among candidates found duly qualified by the Medical Committee. The Medical

Committee have a right to recommend one of the candidates as being, in their opinion, the best fitted for the post; and such recommendation having on former occasions been almost, or quite, unanimous has been confirmed by the Managing Committee, which consists of four of the Medical Staff, and of twelve not connected with it.

On the occasion of the late election (June 24th) seven members of the Medical Committee were present, and the three candidates received the following votes:—

Mr. Bruce—1 vote, from Dr. Dickinson.
Mr. Hill—3 votes, from Drs. Hillier, Buchanan, and Ringer.
Mr. Marsh—3 votes, from Dr. Gee, Mr. Smith, and Dr. West.

The numbers were accordingly taken again, when Dr. Dickinson transferred his vote to Mr. Hill, who thus had a majority of one.

On Friday, June 26th, I, having in the mean time communicated with no one on the subject, Mr. Smith accidentally met me at the hospital, and informed me that Mr. Marsh considered himself aggrieved by the decision of the Medical Committee, and proposed calling to talk to me on the subject. I begged Mr. Smith to prevent his doing so, since I said my relations to the hospital rendered it most desirable that I should not be in the least mixed up with personal questions, which would mar my usefulness to the institution, and he promised to prevent Mr. Marsh's visit if he saw him in time to do so.

On returning home, however, I already found him at my house; but I declined to see him, and wrote him a note, of which I subjoin a copy, expressing my determination not to interfere, nor to communicate on the subject with any member of the Managing Committee. Need I say that I kept my word?

On Monday, June 29th, I attended the meeting of the Managing Committee in complete ignorance of what steps had been taken by Mr. Marsh, or whether he had made up his mind to acquiesce in the decision of the Medical Committee. I found that Mr. Marsh had addressed a letter to the Managing Committee, which was read; and I immediately proposed, and Mr. Smith seconded the proposition, that in the absence of Dr. Hillier and Dr. Buchanan, the other two medical members of the Managing Committee, the consideration of the letter should be postponed for three weeks, when the former gentleman, who was absent, would have returned. This suggestion was overruled by the Managing Committee, who considered that it was their duty to deal with the matter as it was before them; and that the testimonials were sufficient to enable them to come to a decision with reference to the validity of the grounds on which Mr. Marsh based his reclamation. Mr. Smith and I then said, that in that case we should abstain from any remark whatever on the merits of any of the candidates, and that we should leave before the matter was discussed in committee; and we did so.

I have, therefore, made no attempt "to upset in the General Committee the decision arrived at in the Medical Committee," and have held no communication, direct or indirect, with the members of the Committee on the subject; or, in other words, the whole detail or statement of my share in the matter is *absolutely incorrect from beginning to end.* I have no doubt but that you believed yourself fully justified in relying on the veracity of your informant, though a single question addressed to the secretary or the chairman of the Committee, would at once have satisfied you that your confidence was misplaced.

You must pardon, therefore, the expression of my regret that the expediency of making some inquiry as to the truth of statements reflecting on my character and conduct did not occur to you.—I am, etc.,

61, Wimpole Street, July 8th, 1868. CHARLES WEST.

"61, Wimpole Street, June 26th, 1868.

"My dear Marsh,—I heard from Mr. Smith that you felt aggrieved at the recommendation of the Medical Committee, and that you proposed calling to talk to me on the subject. Now, you know my peculiar position in connection with the hospital, and the importance of my being above the suspicion of being swayed by private regard or personal feeling in anything connected with it. You will, therefore, not attribute it to any want of regard, or of good wishes for you in every way if I decline to see you on the subject, or to hold any communication with any member of the Managing Committee privately about it. It is in the power of the Managing Committee to confirm or to reverse the recommendation of the Medical Committee. It is, therefore, open to you to address to them, as a body, any letter that you think proper at their meeting on Monday, and also to each, or any, or all of them privately, and make to them such representations as may enforce your claims. And Mr. Whitford, the secretary, will give you all information with reference to the addresses of any whom you may wish to find. That is his duty; mine is to be able to say that I have not intermeddled in the matter, and that not in profession only, but consistently and thoroughly, I have studied the interests of the hospital above everything.

"Believe me yours very truly, CHARLES WEST."

MEDICO-PARLIAMENTARY.

PARLIAMENTARY BILLS COMMITTEE.

AT the meeting of July 3rd, at 37, Soho Square, Dr. George Webster in the chair, there were present Drs. Stewart, Symes Thompson, C. Holman; William Martin, Esq.; C. F. J. Lord, Esq.; Robert Dunn, Esq.; and Dr. Gibbon.

The HONORARY SECRETARY reported that the Northern Branch of the Association had appointed Dr. G. H. Philipson as their representative on the Committee. He further reported on the amendments that had been effected in the Poor Relief Bill, the Medical Practitioners (Colonies) Bill, and Mr. Torrens' Artizans' and Labourers' Dwellings Bill.

Letters were read from Dr. Desmond, Dr. Bryan, George May, Esq., Samuel Berry, Esq., the Solicitors of the Pharmaceutical Society, etc., containing valuable suggestions and information on the Bills before the Committee.

Dr. GIBBON reported that, in reply to his letter forwarding a copy of the Committee's resolution on the Medical Practitioners (Colonies) Bill, and urging upon the Government the importance of at once introducing the Medical Acts Amendment Bill as prepared by the General Medical Council, Mr. Secretary Hardy had replied that he was not pledged to bring in such a Bill; and that Lord Portman had undertaken to advocate the Committee's amendment to Mr. Torrens' Artizans' and Labourers' Dwellings Bill.

The Sale of Poisons and Pharmacy Act Amendment Bill was read and discussed. The Bill, a private one promoted by the Pharmaceutical Society, was found to be almost identical in its provisions with the one promoted in 1865 by that Society, for regulating "the qualifications of chemists and druggists." The only addition to it was a very imperfect schedule of poisons. A Select Committee of the House of Commons, to whom that and a rival Bill were referred, reported, after taking evidence, that legislation was required to regulate the sale of poisons, and that the Government ought to frame a Bill for the purpose; but declined to express any opinion as to the necessity of a compulsory examination and registration of all chemists and druggists, which is the main object of the present measure.

It was moved by Dr. GIBBON, seconded by Mr. LORD, and carried—"That, in the opinion of this meeting, the principle of the Bill, as stated in the preamble—viz., that it is expedient for the safety of the public that all persons, before commencing the business of a chemist and druggist, ought to be duly examined and registered, is not proven, and ought not to be admitted without further investigation by a Select Committee." It was further resolved—"That a petition to the effect be presented to the House of Commons."

In Clause 1, Dr. STEWART proposed, Mr. W. MARTIN seconded, and it was resolved—"That the schedule of poisons ought to be settled by the General Medical Council, and not to 'be prescribed by the Pharmaceutical Society, with the consent of the Privy Council.'"

In Clause 3, it was suggested that the definition of a chemist and druggist as a person who keeps open shop for compounding the prescriptions of duly qualified medical practitioners, was much too limited.

It was resolved, on the motion of Dr. C. HOLMAN, seconded by Dr. STEWART—"That the Committee, with a view to prevent chemists and druggists practising medicine and surgery, endeavour to get the following clause added to Sec. 16, which reserves the rights of medical men to practise pharmacy: 'and it shall not be lawful for any person registered under this Act to prescribe for any patient, or undertake the treatment of disease, or in any way assume to act as a medical practitioner; and every chemist and druggist so offending shall, upon a summary conviction, forfeit or pay a sum not exceeding £5.'"

For the purpose of protesting against the present unrestricted sale of patent, quack, and other secret remedies, it was resolved—"That it is most desirable that clauses should be introduced into the same providing for the direct representation of all registered medical practitioners on the General Council." The Honorary Secretary was requested to forward a copy of this resolution to the General Medical Council.

The Poor-law and Medical Inspectors (Ireland) and the Contagious Diseases Act Amendment Bills were read and approved.

Mr. Sandford, President, and Mr. T. H. Hills, one of the Vice-Presidents of the Pharmaceutical Society, attended a meeting of the Parliamentary Bills Committee on Thursday, to afford information as to certain clauses and proposed amendments in the Pharmacy Bill, and to confer thereupon. The members of the Committee present were Dr. Webster (Dulwich), Dr. Gibbon, Mr. Heckstall Smith, Mr. Lord, Mr.

W. Martin, and Mr. Hart. After the conference, it was resolved to seek n interview with Mr. Hardy, to press for further amendments considered ecessary in the interests of the profession and the public.

HOUSE OF COMMONS.—Friday, July 3rd, 1868.

PARISH MORTUARIES.—Mr. Goddard asked the Vice-President of he Committee of Council, whether his attention had been directed to paragraph emanating from the BRITISH MEDICAL JOURNAL, headed "The Dead among the Living," and whether it was in their power to enforce upon the London vestries the fulfilment of that clause in the Sanitary Act with reference to providing parish mortuaries for the use of the poor inhabitants of the metropolis, which both the interests of he public health, as well as the cause of suffering humanity, so urgently demands.—Lord R. Montagu was understood to say his attention had been called to the article in question, and that it was entirely optional with the London vestries whether they would enforce that clause in the Sanitary Act or not. Neither his own department, nor the Home Secretary, had any power to require them to do so.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

A PRIZE OF £50 is offered for an Essay on "The Comparative Longevity of Different Species of Lower Animals and the Longevity of Man in Different States of Civilisation." The prize is open to members of the University who, within the five years preceding the 15th of June, 869, shall have attended two courses, at least, in the Physiological department. The essays are to be sent in before the day of the Commemoration in next year to the Professor of Physiology, who will adjudicate the prize with the aid of any person or persons who will be kind enough to assist him at his request. If any question should arise as to he interpretation of any part of this notice the Professor of Physiology s to be referred to. The essays are to be distinguished by mottoes (the candidate's name being sent at the same time under a sealed cover) in he manner prescribed for the Chancellor's prizes.

MEDICAL NEWS.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

A MEETING of the Central Committee of this Society was held in the Royal College of Surgeons, on the 1st inst.; Dr. Fitzpatrick in the Chair. Dr. Wharton announced that he was authorised to tender Dr. Duke's resignation of the office of Honorary Treasurer, in consequence of his continued ill-health. The following resolution was unanimously dopted.

"That Dr. Duke's resignation be accepted; and that the cordial hanks of this Committee be presented to Dr. Duke for the efficient manner in which he has discharged the duties of the Honorary Treasurer to the Royal Medical Benevolent Fund Society for the past six ears. The Committee cannot be satisfied with a mere formal acknowledgment of Dr. Duke's services, but beg leave to take advantage of the resent opportunity to express their deep regret at the cause which has led to his resignation, and to express an earnest hope that his retirement for a time from professional pursuits may have the effect of producing a restoration of his health."

It was then proposed, seconded, and unanimously resolved, that Dr. ames Little be requested to accept the office of Honorary Treasurer of he Royal Medical Benevolent Fund Society of Ireland.

The following awards were made during the past month, subsequently to the annual distribution.

1. A widow, aged 50. Husband dead some years. This was a ase which has been annually relieved, but was too late this year for he general distribution. Recommended by Sir Dominic Corrigan, Bart., and Dr. Benson. Granted £5.

2. Three female orphans. Father died three years since. Application late for annual distribution. Recommended by Limerick Branch or a final grant of £15, to assist them in emigrating. Granted £15.

3. A spinster, for several years a recipient from this fund. Application late for annual distribution. Recommended by Limerick Branch. ranted £4.

4. A medical man, totally unable, from heart-disease, to follow his rofession; has six children, and no means of support. Strongly recommended by Cork Branch. Awarded £15. (This was an urgent case, and had come under the notice of the Cork Branch subsequently to the annual distribution.)

5. A widow, aged 70. Relieved last year. Friends supported her, but are now all dead. Recommended by Clare Branch. Awarded £5.

Dr. Little, the Honorary Treasurer, having reported that, from the unexpected calls upon the funds of the Society, owing to the arrival of several applications after the annual awards had been made, there remained only a small balance in bank to meet the awards in the last two cases. It was ordered that £4 be immediately sent to Case No. 4, as most urgent; and that, as funds were available, the balance should be remitted, as also the award in Case No. 5.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having been elected Fellows at previons meetings of the Council, were admitted as such, on July 9th.

Williams, Thomas Watkin, Newhall Street, Birmingham; diploma of membership dated April 3rd, 1840
Jackson, John, Church Street, Spitalfields; May 11th, 1840

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 2nd, 1868.

Barnish, William Croudson, Wigan, Lancashire
Bately, John, Southtown, Great Yarmouth
Brickwell, Eustace Arthur, Sawbridgworth
Dod, Harry Davenport, Macclesfield

At the same Court, the following passed the first examination.

Davies, William Henry, University College Hospital

MEDICAL VACANCIES.

THE following vacancies are declared:—

ASHBY-DE-LA-ZOUCH UNION, Leicestersh.—Medical Officer for District No. 5.
ATHLONE UNION—Medical Officer for the Athlone Dispensary District.
BANDON UNION, co. Cork—Medical Officer for the Innishannon Dispensary District.
BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
CORK UNION—Medical Officer for the Cork Dispensary District.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
GALWAY UNION—Medical Officer for the Roundstone Dispensary District.
ISLINGTON DISPENSARY—Physician.
LEITH HOSPITAL—House-Surgeon.
MIDDLESEX LUNATIC ASYLUM, Hanwell—Assistant Medical Officer.
NORTHERN HOSPITAL, Liverpool—House-Surgeon.
PARSONSTOWN UNION—Medical Officer for the Kennitty Dispensary District.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician; Assistant-Physician.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Physician.
ST. GILES and St. GEORGE, Bloomsbury, Parishes of—Resident Assistant Medical Officer.
ST. MARYLEBONE GENERAL DISPENSARY—Physician; Surgeon.
THINGOE UNION, Bury St. Edmunds—Medical Officer for District No. 7.
TRINITY COLLEGE, Glenalmond—Resident Medical Officer.
WAKEFIELD UNION—Medical Officer for the Shitlington District.

MEDICAL APPOINTMENTS.

HAYWARD, Sidney, M.D., appointed Physician for Out-patients to the Samaritan Free Hospital for Women and Children.
*MARTLAND, William, Esq., Surgeon to the Blackburn Infirmary, appointed Surgeon to the Blackburn Borough Police; and appointed Inspecting-Surgeon of Recruits, Blackburn District, *vice* J. Witherington, M.D., deceased.

ARMY.

CULLEN, Staff-Surgeon D., M.D., to be Surgeon 71st Foot, *vice* Surgeon-Major G. T. Galbraith, M.D.
DOMENICHETTI, Surgeon-Major R., M.D., 75th Foot, to be Staff-Surgeon-Major, *vice* J. C. H. Wright.
GALBRAITH, Surgeon-Major G. T., M.D., 71st Foot, retiring on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.
MAUNSELL, Staff-Assistant-Surgeon T., to be Assistant-Surgeon Royal Artillery, *vice* E. F. O'Leary.
O'LEARY, Assistant-Surgeon E. F., Royal Artillery, to be Staff-Assistant-Surgeon, *vice* T. Maunsell.
SKIPTON, Staff-Surgeon S. S., M.D., to be Surgeon 25th Foot, *vice* E. Touch, M.D.
TOUCH, Surgeon E., M.D., 25th Foot, to be Staff-Surgeon, *vice* S. S. Skipton, M.D.
WRIGHT, Staff-Surgeon J. C. H., to be Surgeon 75th Foot, *vice* Surgeon-Major R. Domenichetti, M.D.

ROYAL NAVY.

BOTHWELL, B., Esq., Acting Assistant-Surgeon, to the *Penelope*.
FORBES, Charles, M.D., Staff-Surgeon, to the *Asia*.
O'BRIEN, William E., Esq., Surgeon, to the *Penelope*.

INDIAN ARMY.—To be Surgeons-Major.

BROWN, Surgeon G. F. H., Bombay Army.
BUCKELL, Surgeon R. K., Bengal Army.
COLLINS, Surgeon J. C., M.D., Bengal Army.
GILBERT, Surgeon J., Bombay Army.

To be Surgeons, Bengal Army.

BELLEW, Assistant-Surgeon H. W.
GAYER, Assistant-Surgeon E. J.
SOUTH, Assistant-Surgeon D. B., M.D.
THORNTON, Assistant-Surg. J. H., M.B.

To be Surgeons, Madras Army.

Bidie, Assistant-Surgeon G., M.B.
Eves, Assistant-Surgeon C. T.
Heffernan, Assistant-Surgeon J. J.
Henderson, Assistant-Surgeon J., M.D.
Reed, Assistant-Surgeon J. G., M.D.
Ridings, Assistant-Surgeon J. S., M.D.
Ross, Assistant-Surgeon H. M'Eilheron, M.D.
Trimnell, Assistant-Surgeon D. W.
Williamson, Assistant-Surgeon B., M.B.

To be Surgeons, Bombay Army.

Bloomfield, Assistant-Surgeon A. M.
Burrowes, Assistant-Surgeon E. P.
Cates, Assistant-Surgeon W. E.
Colston, Assistant-Surgeon C. K.
Colvill, Assistant-Surgeon W. H.
Cruikshank, Assistant-Surgeon J., M.D.
Joynt, Assistant-Surgeon C., M.D.
Kingston, Assistant-Surgeon H. C., M.D.
M'Connell, Assistant-Surgeon R. C.
Mennie, Assistant-Surgeon J.
Ogilvie, Assistant-Surgeon C. F.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Morris, C. W., Esq., to be Honorary Assistant-Surgeon 16th Gloucestershire R.V.
Phillip, T. R., Esq., to be Assistant-Surgeon 19th Glamorganshire R.V.

BIRTHS.

Branthwaite.—On June 18th, at Heighington, near Lincoln, the wife of H. Branthwaite, Esq., Surgeon, of a daughter.

Buchanan.—On July 3rd, at Glasgow, the wife of *G. Buchanan, M.D., of a son.

Watson.—On June 24th, at West Green, Tottenham, the wife of *William Tyndale Watson, M.D., of a son.

MARRIAGES.

Cotter, Samuel K., M.B., B.A., to Alice, second daughter of Captain Thomas Jamieson, of Portswood, Southampton, on June 8th.

Dalton, W. R., Esq., Staff-Surgeon R.N., to Maria J., second daughter of Conrad H. Greenhow, Esq., at the Riding Mill, Northumberland, on June 2nd.

Fisher, James, Esq., to Caroline, youngest daughter of the late Nicholas Fitzpatrick, M.D., R.A., of Bedford, at Kempston, Bedfordshire, on June 9th.

Forsyth, Alexander, M.D., of Greenwich, to Katherine, second daughter of the late Henry Spring, Esq., of Hoxton Square, at Woodford, Essex, on June 11th.

Green, George R., Esq., to Isabella, second daughter of Joseph Clarke, M.D., of Guilford Street, at St. Pancras Church, on June 3rd.

Gwyther, James, M.B., to Lucy Victoria, only surviving daughter of W. R. Callender, Esq., of Didsbury, at Manchester, on May 28th.

*Hey, Samuel, Esq., Senior Surgeon of the Leeds General Infirmary, to Sarah Jane, eldest daughter of the Rev. Josiah Pratt, vicar of St. Stephen's, Coleman Street, London, on June 10th.

*Kerswill, George, Esq., Surgeon, of East Looe, second son of *Robert Kerswill, Esq., of St. Germans, to Frances Dorothea, second daughter of William Marshall, Esq., of Liskeard, at St. Clear, Cornwall, on July 2nd.

*Martin, John H., M.D., of Portsmouth, to Mary Jane, only daughter of the late Alexander McKechnie, M.D., Inspector-General of Fleets and Hospitals, at Norbiton, Kingston-on-Thames, on June 6th.

Morris, Joseph, M.D., of Studley, Warwickshire, to Margaret Young, fourth daughter of George Smith, M.D., of Barnsley, on June 25th.

DEATH.

Spratly.—On July 7th, at Rock Ferry, Cheshire, aged 35, Annie Maria Elizabeth, wife of *S. Spratly, M.D.

◆

Sir William Hood.—We announced last week the election of Dr. William C. Hood as Treasurer of Bethleham Hospital. He has this week received the honour of knighthood, in recognition of his eminent services to psychological medicine and practice and of his public services in his professional capacity.

The Reverend David Bell, M.D.—Amongst the fellows admitted into the Medical Society of London at the end of the last session was the Rev. D. Bell, M.D. Dr. Bell was also elected an honorary member of the St. Andrew's Medical Graduates' Association a short time ago.

The University of Edinburgh.—Sir Alexander Grant has been elected Principal of the University of Edinburgh by a vote of four against three. The ground of the decision was, that a large number of the Senatus had expressed an objection to the presidency of Sir J. Y. Simpson; and it was feared that this would affect the concord and efficiency of that body, and probably prevent the attendance of some of its valued members. We can but regret that our profession has thus lost the honour of having one of its members elected to the office.

Distribution of Prizes at King's College Hospital.—The distribution of prizes took place at King's College on the 3rd inst.; the Archbishop of Canterbury in the chair. The following is a list of the scholars and prizemen. Senior Scholar, C. E. Hoar; Second Year Scholar, R. W. Lyell; Junior Scholars, 1, G. C, Briggs, 2, A. W. Blyth; Warneford Scholars, Class I: 1, W. F. Hazel, 2, J. N. Rat; Warneford Scholar, Class II, A. A. Kidger. *Prizes*—Warneford, 1, C. E. Hoar, 2, F. Beach; Anatomy, F. Warner; Physiology, G. le Hunt Rowland; Chemistry, G. le Hunt Rowland; Botany, T. Allen; Materia Medica, F. Beach; Divinity, G. le Hunt Rowland, R. Eardley Wilmot; Medicine, E. B. Baxter; Surgery, U. Pritchard; Clinical Medicine, F. Beach; Clinical Surgery, C. H. Mayhew; Todd Clinical, A. P. Fiddian; Midwifery, A. P. Fiddian; Forensic Medicine, H. Parmiter; Comparative Anatomy, R. W. Lyell.

Suicide and Lunacy.--Dr. Stiff, in his Annual Report, quoted i the *Journal of Mental Science*, observes that about twenty-seven suicides annually occur in the county of Nottingham—none have occurre in the asylum; and he observes that it is exceedingly probable that, i this unfortunate class of persons had been brought under remedial treatment when they first showed signs of insanity, more than a third migh be found to be curable.

Testimonial to Dr. Jelf.—After the distribution of prizes a King's College, on the 3rd instant, a testimonial was presented to Dr. Jelf, consisting of a handsome chased silver epergne. The Archbishop of Canterbury, in presenting it, reviewed the career of Dr. Jelf, and spoke in eulogistic terms of his conduct as Principal during his long tenure of office. He referred briefly to the various changes which had taken place in the College during his presidency, and spoke of the different departments which had become developed of late years so as to adapt the course of education to the requirements of the age, and he hoped that he would long live to enjoy the learned ease and dignified repose which he had so well-earned. Dr. Jelf, who was much affected, returned thanks for the testimonial, and assured them that he should prize it most highly as a remembrance of the years he had spent in the College, and of the warm sympathy he had always met with amongs his fellow workers and colleagues. He should, as long as he lived, eve feel the deepest interest in the College, and, with much emotion, bade those present a hearty farewell. In addition to the personal testimonial half of the money subscribed has been employed in founding a medal, to be called the "Jelf Medal," one to be given annually in each department. A large number of subscribers were present, and cheered the Principa most heartily at the conclusion of his farewell speech.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Roya Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Fre Hospital for Women and Children, 2.30 P.M.—Great Norther 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Roya Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmi 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King' College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmi 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

THURSDAY.--Zoological Society.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Edito 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

We cannot undertake to return Manuscripts not used.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, shoul authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, ar requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

"Extensive Adhesions" (Bodmin).—The paragraph was, no doubt, inserted by a injudicious, and evidently a professional, friend. The gentleman is a Fellow of t College by examination, and may well exclaim, "Defend me from my friends."

Action of Digitalis on the Uterus.

Sir,—In a late number of the Journal, Dr. Addington Symonds, referring to t paper in the *Medico-Chirurgical Transactions* in which the action of digital upon the uterus was first described, attributes the authorship to Dr. Lee. Will y allow me to state that the observations in question rest on no higher authority th that of Dr. Lee's old pupil and hospital assistant, W: H. Dickinson.

Photos.—Messrs. Moira and Haigh have just published excellent likenesses of t Presidents of the Colleges of Physicians and Surgeons. That of Dr. Alderson particularly good.

A Hospital Surgeon.—The preparations to which you allude have been remov into the Museum; the Theatre being required for the primary examinations commencing this day.

A LECTURE

ON

CHOLERA AND DIARRHŒA.

BY

SIR THOMAS WATSON, BART., M.D., F.R.C.P., F.R.S.

[THE following note from Sir Thomas Watson accompanies the MS. —16, Henrietta Street, Cavendish Square, W., July 9th, 1868.—Sir,—Being engaged in revising, for a new edition, my *Lectures on the Practice of Physic*, I find it necessary to modify considerably some advice that I formerly gave my auditors as to the treatment of a disorder which appears to be again increasingly prevalent throughout the country. It will be a favour and a relief to me if you will permit a short portion of my re-written lecture on Cholera and Diarrhœa to appear in your JOURNAL, where the same subjects have heretofore been much and ably discussed.—I am, sir, your faithful servant, THOMAS WATSON.]

The form and features, then, of this dreaded pestilence have been the same in all its visitations to this country. Must we still, as heretofore, make the mortifying confession that our art is unable to cope with it successfully? Not so, I trust. Among the many and discordant expedients which have been brought forward, and fairly tried, for the cure of cholera, one, long since suggested, and almost scornfully rejected, has emerged of late into clearer significance and more intelligible and ascertained value. I mean the method—recognised as legitimate and reasonable in various other maladies—of "elimination".

There are two conflicting theories as to the pathology of cholera; and there are two conflicting principles—which accord with and flow from these theories respectively—as to its proper treatment. Upon this momentous problem of treatment, the final appeal must clearly be made to experience; but the verdict upon that appeal has not as yet been very widely recognised or confidently accepted. Let us set the whole question plainly before us.

It is acknowledged on all hands that the primary and special danger in cholera lies in its period of collapse. Now it was a very natural and plausible theory which attributed this state of collapse to the drain of fluid matters from the blood by the profuse and repeated fluxes from the stomach and bowels; and the practice suggested, as a direct corollary to this theory, was that of endeavouring to arrest the destructive flux by astringent drugs and by opium, and to restore the spent strength and the lost animal warmth by alcoholic and other stimulants.

It is affirmed, on the other hand, that the condition called collapse is not due to the excessive discharges from the body; that those discharges are really eliminative of the poison, or of the products of the poison, which caused the disease, and are to be permitted, or even encouraged, rather than checked; and, therefore, that astringents and opiates can do no good, but are, on the contrary, positively hurtful.

Were the first mentioned theory true, there must be a discernible relation between the alleged cause and its effect. The greater the amount of the intestinal discharges, the more certain and the more decided should be the resulting collapse. But no such proportion has, in fact, been observed. Nay, the very reverse not seldom obtains. The most hopeless cases are those of collapse after very scanty discharges, or with no discharges at all.

Again, if the collapse were indeed owing to the drain upon the blood effected through the intestinal discharges, it would be prolonged, deepened, and rendered more perilous, by the continuance of those discharges; whereas it is notorious that patients emerge from the state of collapse while the evacuations go on, and that the cessation of the evacuations during collapse is a fatal sign.

Tested, then, by the evidence of acknowledged facts, this theory must be pronounced a failure, and the treatment founded upon it a mistake.

In truth, a fallacious analogy has been assumed between the collapse or exhaustion arising from a drain upon the blood and the collapse in cholera. In one single point—namely, the smallness and weakness of the arterial pulse (in other words, the defective circulation of the blood) —the two may seem to touch each other. In almost every other point, they differ widely. A person exhausted by loss of blood, or by a long continued drain upon that fluid, is in a state that is very near to syncope. When the exhaustion is extreme, if he assume the erect posture, he faints outright, and becomes unconscious. To walk, to stand, or even to sit up, is simply impossible; whereas, in the collapse of cholera, syncope is well-nigh unknown. The patient, with death stamped apparently upon his features, with no pulse to be felt at his wrist, with a blue and icy-cold skin, is not faint, but able to walk about the room, and to perform many of his usual functions. The exhausted man, if he recover, recovers slowly; the repair of his impoverished blood is necessarily a gradual process. The cholera patient rallies from his collapse at once, if at all. He may be in full collapse to-day, and convalescent the day after to-morrow, and apparently but little the worse for the terrible disorder through which he has so recently passed. "I have seen," says Mr. Grainger, "a man stand at his door on Wednesday, who on Monday was in perfect collapse." Again, the way in which remedies tell upon the two contrasted conditions is totally and instructively unlike. The coldness and faintness of exhaustion are relieved at once by a glass of wine or of brandy; the pulse instantly acknowledges the virtue of the stimulus. But alcoholic stimulants do not warm or invigorate, even for a moment, the patient in choleraic collapse: rather, they seem to make matters worse. On the other hand, bloodletting has often brought marvellous relief under collapse; while to draw blood from a person who is fainting from exhaustion would probably ensure his death, and would certainly aggravate his danger. Take the following instance, recorded by Sir Ranald Martin, of the effect of venesection. "On visiting my hospital in the morning, the European farrier-major was reported to be dying of cholera. I found that during the night he had been drained of all the fluid portion of his blood. His appearance was surprisingly altered; his respiration was oppressed; the countenance sunk and livid; the circulation flagging in the extremities. I opened a vein in each arm; but it was long before I could obtain anything but trickling of dark treacly matter. At length the blood flowed, and by degrees the darkness was exchanged for more of the hue of nature. The farrier was not of robust health, but I bled him largely; when he, whom not a moment before I thought a dying man, stood up and exclaimed, 'Sir, you have made a new man of me.' He is still alive and well."

The question has naturally been put, "Is it possible to reconcile facts of this kind with the theory that the collapse of cholera results from the loss of the liquid constituents of the blood? If Sir R. Martin's hypothetical statement that his patient 'had been drained of all the fluid portion of his blood' were an accurate expression of facts, can we conceive it possible that he could have 'made a new man' of him by abstracting largely the blood which remained in the vessels?"

The main advocate in this country, and, as I think, the triumphant advocate, of what may be called the evacuant or cleansing practice in cholera, is your present able Professor of Physic, Dr. George Johnson. To him is justly due the great merit of having established, by his persevering efforts in the face of much opposition and discouragement, the worth and efficacy of that practice; although he was not the first to recommend or to adopt it. It was in fact tried, with favourable results, nearly half a century ago, by English practitioners in India; its professed object being that of getting rid of offensive morbid secretions. The practice thus vouched for by Dr. Johnson is directly in accordance with, and serves to confirm, that view of the pathology of cholera which, by a methodical display of numerous facts, and by a process of close and conclusive reasoning, he may fairly challenge as his own. Briefly, he holds, as many before him held, that the phenomena of cholera result from the entrance of a peculiar poison into the blood, where it probably undergoes, like that of small-pox, a rapid process of self-multiplication, and spoils certain of the blood-constituents, which are then ejected through the mucous membrane of the alimentary canal; that the copious discharges are expressive of the efforts of nature to throw off a noxious material, and really form, therefore, a necessary part of the process of recovery; and that, if the pouring forth of the vascular excretion be checked (as it can, perhaps, be by opium), the risk of fatal collapse is thereby increased. He declares that the results of his own practice, founded on these views, have amply justified them; and a considerable body of other evidence has now been furnished in support of the same plan of treatment. Whatever may have been his earlier purpose, he does not now propose to *excite* discharges from the mucous surface of the digestive canal; but simply to facilitate the removal of matters lodged there. And this he would do by emetics, by draughts of tepid water or other diluents, or by castor-oil, of which the action is both speedy and gentle.

It is plain that, if "elimination" be a condition of recovery, the method of elimination is Nature's method, which Art may help or hinder—help by the cleansing method, hinder by the astringent.

For a full appreciation of Dr. Johnson's very novel and interesting, and to my mind satisfactory, disquisitions as to the general pathology of cholera, I must refer you to his paper in the fiftieth volume of the *Medico-Chirurgical Transactions*. What we are now concerned to ascertain is the comparative result of the two conflicting methods of treatment. Upon this point there is, in the same volume of *Transac-*

tions, a most instructive communication from Drs. M'Cloy and Robertson. They show that, of 375 cases of cholera admitted into the Liverpool Parish Infirmary in the last epidemic, 161 proved fatal—a gross mortality, under all the modes of treatment adopted, of 42.93 per cent. Of these cases, 91 were treated with astringents and stimulants, camphor and iced water, applications of ice, and hypodermic (opiate) injections; and the mortality per cent. of these cases was 71.42. 87 cases were treated with castor-oil, and with a liberal use of food and alcohol; and the mortality was 41.37 per cent. 197 cases were treated with castor-oil only, and the mortality was 30.45 per cent. The authors of the paper declare that "recovery never occurred without the continuance of the intestinal discharges, or their restoration, if previously arrested."

When I last spoke on this subject in these Lectures, I stated that the few recoveries which I had witnessed had all taken place under large and repeated doses of calomel, but that I could not venture to affirm that the calomel cured them. At present, I am much disposed to believe that, by its cleansing action, the calomel may have helped the recovery; and, after all that I have since seen, heard, read, and thought upon the matter, I must confess that, in the event of my having again to deal with the disorder, I should feel bound to adopt, in its generality, the evacuant theory and practice.

Now, if this theory and practice in respect of cholera be true and right, the practice ought to be right in respect of the associated diarrhœa also; and it is strongly affirmed by those who have largely tried it, that it is right, inasmuch as it is eminently successful. Dr. Johnson avers that he has found it so.

Hear the concurring testimony of Drs. McCloy and Robertson. "Our experience of diarrhœa was very extensive. Several thousand cases came under our observation in the different dispensaries connected with the West Derby Union and in the Liverpool Parish Infirmary. Among these were doubtless many which would have recovered under any mode of treatment, or by the *vis medicatrix naturæ* alone. But there were many, too, of a most severe choleraic type. The treatment adopted was generally evacuant in its nature; and consisted in the administration of castor-oil, calomel, rhubarb, or magnesia. In every case, relief was afforded 'pleasantly, quickly, and safely.' It was but seldom that more than two or three doses of oil were required." The medical officers of the Bootle Dispensary depose to the same effect: "We certainly had less trouble with the evacuant mode of treatment. Our patients seldom gave us a third visit; two doses of castor-oil or rhubarb mixture being generally sufficient to cure the disease." We never saw a diarrhœa patient, treated with evacuants from the commencement of his attack, require subsequent removal to hospital. In a large proportion of our cases there was 'premonitory diarrhœa' which had been treated, often for four or five days, with astringents. Diarrhœa patients undoubtedly recover when treated with astringents; but the recovery is not consequent upon the arrest of the discharges, as these are invariably restored before the patient feels well."

In the face of this and of much similar evidence, I feel bound to say that the rules laid down by Dr. Johnson for the treatment and prevention of diarrhœa and cholera, seem now to me safer and better than the less discriminating advice which heretofore I gave you; "whenever a suspicion arose that cholera was present in the community, not to try, in cases of diarrhœa, to carry off the presumed offending matter, but to quiet the irritation and to stop the flux as soon as possible, by astringents, aromatics, and opiates."

No doubt, the true indication of treatment is, "to stop the flux as soon as possible"; but this may sometimes be best effected (as also in crapulous diarrhœa, and in the summer cholera of Sydenham), "*by* carrying off the offending matter."

In language chiefly his own, but partly also mine, Dr. Johnson writes as follows.

"*Diarrhœa ought not to be neglected, even for an hour.*"

"One important and guiding rule of treatment is, '*not to attempt by opiates, or by other directly repressive means, to arrest a diarrhœa, while there is reason to believe that the bowel contains a considerable amount of morbid and offensive materials.*'

"The purging is the natural way of getting rid of the irritant cause. We may *favour* the recovery by directing the patient to drink copiously any simple diluent liquid—water (cold or tepid), toast-water, barley-water, or weak tea; and we may often accelerate the recovery by sweeping out the alimentary canal by some safe purgative, and then, if necessary, soothing it by an opiate. Castor-oil, notwithstanding its unpleasant taste, is, on the whole, the safest and best purgative for this purpose. It has the advantage of being very mild and unirritating, yet withal very quick in its action. A tablespoonful of the oil may be taken, floating on cold water, or any other simple liquid which may be preferred by the patient. A mixture of orange-juice or of lemon-juice with water forms an agreeable vehicle for the oil. If the dose be vomited, it should be repeated immediately; and the patient should lie still, and take no more liquid for half an hour, by which time the oil will have passed from the stomach into the bowels. Within an hour or two, the oil will usually have acted freely. Then a tablespoonful of brandy may be taken in some thin arrowroot or gruel; and, if there be much feeling of irritation, with a sense of sinking, from five to ten drops of laudanum may be given in cold water. These means will suffice for the speedy arrest of most cases of choleraic diarrhœa. If the patient have an insuperable objection to castor-oil, or if the oil cannot be retained on the stomach, ten or fifteen grains of powdered rhubarb, or a tablespoonful of the tincture of rhubarb, or a teaspoonful of Gregory's powder, may be substituted for the oil."

"If the diarrhœa have continued for some hours, the stools having been copious and liquid; if there be no griping pain in the bowels, no feeling or appearance of distension of the intestines; the abdomen being flaccid and empty, and the tongue clean—we may conclude that the morbid agent has already purged itself away. There will, therefore, be no need for the castor-oil or other laxative; and we may immediately give the brandy in arrowroot, and the laudanum, as before directed. The rule in all cases is, *not to give the opiate until the morbid poison and its products have for the most part escaped; not to close the door until 'the enemy' has been expelled.* While there are some cases in which the evacuant dose is not required even at the commencement of the attack, there are many more in which the opiate is unnecessary in the later stage. In some cases of severe and prolonged diarrhœa, it may be necessary to repeat the oil and the laudanum alternately more than once at intervals of three or four hours. Practical skill and tact are required to discriminate these cases. It must be borne in mind that, when the choleraic secretions are being actively poured out from the bloodvessels, the bowel, though it may have been completely emptied by a dose of oil, may quickly again become filled with morbid secretions, and hence the need for an occasional repetition of the evacuant dose."

"If the diarrhœa be associated with vomiting, this should be encouraged and assisted by copious draughts of tepid water. The vomiting affords relief, partly by the stimulus which it gives to the circulation, but mainly by the speedy ejection of morbid secretions."

"If there be nausea without vomiting, and more especially if the stomach be supposed to contain undigested or unwholesome food or morbid secretions, an emetic may be given—either a teaspoonful of powdered mustard, or a tablespoonful of common salt, or twenty grains of ipecacuanha powder, in warm water.

"In all cases of severe diarrhœa, the patient should remain in bed."

THERAPEUTICAL MEMORANDA.

TREATMENT OF EPISTAXIS BY SIMPLE COMPRESSION OF THE NOSTRILS.

By R. P. B. Taaffe, M.D., M.S.Lond., Surgeon to the Brighton and Sussex Infirmary for Diseases of the Eye.

A few days ago, I was called to a case of severe epistaxis of an active character. The patient, a middle-aged man, had been the subject of a good deal of hard brain-work. He had suffered from severe epistaxis on several occasions, for which he had been variously treated, locally and constitutionally. The local treatment, hitherto found successful, was the injection of iced water.

When I saw the patient, he had been bleeding from the nose for some time, and on the day previous had lost so much blood that he fainted. On the whole, the loss having been so considerable, I felt justified in interfering. The thought struck me to try what simple compression of the nostrils close to the nasal bones between the thumb and forefinger would do. I first tried the compression myself, then the patient used his own fingers, first of one hand, then of the other; in the course of about twenty minutes the bleeding was completely arrested. The simplicity of this plan of treatment, when compared with plugging the nostrils, must be apparent. In no medical or surgical work, as far as I know, is mention made of this method.

The situation of the bleeding vessels has generally been supposed to be rather high up in the nares, but here was a case in which the bleeding vessel (or vessels) was either situated below the hard parts, rendering compression comparatively easy of application; or if situated high up, the compression caused a clot to be formed, having a firm basis of support, and so plugged the bleeding points. In all cases of epistaxis requiring interference, to which I may in future be called, I shall certainly first try what simple compression of the nostrils between the finger and thumb will do before proceeding to further treatment.

LECTURES
ON THE
PRINCIPLES OF SURGICAL DIAGNOSIS:
ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

By F. LE GROS CLARK, F.R.C.S.,
Surgeon to St. Thomas's Hospital, and Examiner in Surgery in the University of London.

LECTURE II.

Symptoms and Signs.—Antecedent Condition of Patient: his Habits, Temperament, and Occupation.—Exciting Causes of Injury or Disease. —Existing Subjective and Objective Indications.—Signs, Certain, Equivocal, Negative, and Accidental.—Sources of Obscurity and Fallacy.—Functions of Animal and Organic Life.—Intellect, Expression, Colour, Volition, Sensation, Excito-motor Phenomena—Rigor, Specific Sensation.

Mr. President and Gentlemen,—An accomplished and eminent physician, when speaking in his lectures of the value of diagnosis in medicine, and of its forming "the indispensable basis of all *advances* in physic as a practical art," goes on to observe that, "almost all we know concerning the proper treatment of the sick is *originally* derived from observation, *not* of the *nature of diseases*, but of the *effects of remedies*." This apparent paradox embodies an important truth, as it is employed by its author in application to the practice of physic; because, as I took occasion to remark in my last lecture, the action of medicines can be learned only by experience, such knowledge being, for the most part, purely empirical, but, at the same time, essential in the medicinal treatment of disease. Yet, it is equally certain that the most accurate acquaintance with therapeutics must be unavailing, unless the capability of identifying disease be also possessed; and it is thus alone that empiricism and science combine to make the accomplished physician. In surgery, apart from the medical treatment of our cases, there is, as I remarked, but little scope or justification for empiricism; diagnosis is all-important, and the association between the knowledge of what a disease is and its befitting treatment is, therefore, founded upon a more satisfactory basis. Physiology and pathology have taught us how to manage surgical disease; where to interfere and where to withhold interference. All the great discoveries in practical surgery are due to the advance of our knowledge in these departments of sciences; and our operations are performed with confidence and skill only by the practised anatomist.

I trust it may not be inferred that, in making these remarks, I lesire to draw an invidious parallel between medicine and surgery. This is very far from my intention. I am not unaware of the vast strides which the practice of medicine has of late years made, both in acquaintance with disease and in the use of remedies; and a new field has been opened up by the employment of spectrum-analysis in displayng the presence of elements in the animal body, which the most delicate hemical tests have failed to detect; and also in demonstrating with what emarkable rapidity those elements pass into the circulation, and are ound even in parts completely external to the circulating system. The iscovery by Dr. Bence Jones of the existence, in every texture of man and f some animals, of a fluorescent substance, which has a very close optial and chemical resemblance to quinine, is a singular triumph of invesgation in this direction. From this source, and from experimental rganic chemistry, we may confidently anticipate that our knowledge in herapeutics will be advanced, and that our accepted empirical concluons will receive a scientific explanation. But especially has the proress of which I speak been due to the more accurate diagnosis of disase, founded upon morbid anatomy and pathology; and I cannot but ecognise in this fact a bond of closer alliance between medicine and urgery; a nearer approximation in our several pursuits, and an identity f interest in the investigations of the several co-labourers in the cause humanity—an association which should never have been disturbed by alousy or rivalry, by pharisaical derision of empiricism on one side, nd by contempt for handicraft on the other. Much has been accomished in this welcome change even within my short memory, and uch, I may add, is due to the present high educational standard of at class which forms the bulk of our profession, and which, as emodying the scientific cultivators of both medicine and surgery, constites the great bond of union between the more exclusive branches of ur common calling.

The evidence by which we judge of the nature of a surgical disease or injury, or, in other words, by which we form our diagnosis, is derived from various sources. Many antecedent circumstances in disease, and many concurrent circumstances in accidents, have to be carefully ascertained and considered, and this inquiry constitutes the *history* of the case. Any deviation from a normal condition, whether functional or organic, is called a symptom or a sign; and it is either by the positive information supplied by the presence of such signs or symptoms, or, it may be, by the negative evidence afforded by their absence, that we judge of the nature of a disease or accident, and of the treatment which should be adopted for its relief.

In the foregoing paragraph, I have employed two words, "symptom" and "sign", as if they were convertible expressions, to which the same meaning is attached; and yet this is not exactly the case. Even the etymology of the two words would seem to justify some distinction between them. The Latin word *signum* (itself of doubtful Greek origin) is more positive and emphatic; it implies the evident manifestation of what it denotes; whereas, the Greek word συμπτωμα conveys to the mind the idea of concurrence and accident combined. By this I mean, not the concurrence of various elements by which a diagnosis is formed, but the coincidence of an *accidental* circumstance with, and denoting the presence of, that which is, as opposed to it, *essentially* the disease. And this definition is in strict accordance with that pathology which regards disease as having an existence entirely independent of, though denoted by, symptoms. In other words, the symptoms, in the aggregate, do not constitute the disease, but their concurrent presence denotes its existence. But these distinctions in definition are determined much more by conventional usage than by grammatical rule; and I trust I shall not do violence to either by the interpretation I have been in the habit of attaching to these two words. Symptom seems to me more a medical, and sign more a surgical term; symptom conveys to my mind the idea of something, the communicated or obvious presence of which is indicative of some abnormal condition that is not otherwise or in itself manifest; sign appeals exclusively to the senses, and appears to imply the existence of a palpable token whereby we may recognise the presence or nature of some *material* change in the body. For example, it would, to my apprehension, be as inaccurate to speak of the functional disturbance of organs as signs of fever, as to enumerate deformity, crepitus, etc., as symptoms of fracture. I should prefer that diction in which the word "symptom" is employed in reciting the indications of the presence of cancer in the stomach, and the word "sign" in describing the same disease in the breast. Perhaps I should express myself more accurately if I speak of *symptoms* as denoting functional variations which are subjective, and *signs* sensible changes which are objective, the former being essentially dynamic, and the latter physical or chemical in their nature. Such, at least, is the sense in which I shall employ these expressions in the ensuing lectures; although I am aware that the restrictions I put on the words in question are open to criticism, and are not in accordance with the definition of them which is often given and received.

In the consideration of some of the cases of injury, and even of disease, which come under the care of the surgeon, he is able to dispense with any particular inquiry as to antecedent circumstances; but in the majority of instances the previous history is an important element of information, as bearing upon the treatment, and requires careful investigation, whilst it tests the ability and discretion of the practitioner. Not unfrequently the simple nature of the malady or injury, or the intelligence and good sense of the patient render the task an easy one, but very often the surgeon has to contend with a variety of adverse circumstances in this investigation. The antecedents may, in the patient's estimation, be overrated or underrated; he may attach an undue importance to some, whilst he conceals, either wilfully or ignorantly, others. In some instances, patients are indisposed to answer any inquiry, and in others, all suggestions are acquiesced in with a readiness which negatives the value of every reply. Leading questions may be requisite to elicit information, or they may be fatal by inducing assent, in compliant or fanciful clients, to every inquiry. Thus, both patience and sagacity are taxed in this investigation, and frequently it is only after both are well-nigh exhausted, that a true history of the antecedent condition of the patient is acquired.

The circumstances into which it behoves the surgeon to inquire, may be classed under two heads; viz., those which are associated with the general health, habits, occupation, temperament, and constitution of the patient, and those which more especially pertain to the existing disease or accident, and which constitute predisposing and exciting causes of the malady he has to deal with. There are few surgical cases in which the general antecedent condition of the patient has not an important bearing on the treatment and prognosis; and in many instances likewise a just diagnosis is dependent on an accurate acquaintance with the previous history of the patient. This is especially the case in large cities where life is more artificial, and the over-stimulation of the circulation, with insufficient exercise, is so common. Thus, it may be predicated with tolerable certainty of the gin-tippling mechanic or of the beer-drinking drayman, that they will bear injuries and operations badly; that their reactive power is feeble, or, if active, faulty, and tending to destructive disorganisation rather than repair. The flagging and faltering steed requires both whip and spur, and the wonted stimulus must be supplied to rouse the sluggish organic energy, or to convert the morbid into a healthy action. I say the *wonted* stimulus, and I may remark that the caprice of the stomach often exacts the most scrupulous attention to its habits, so that even the substitution of one preparation of alcohol for another will not be tolerated—a circumstance which must, I think, be familiar to many of my hearers. In fracture, we frequently meet with cases exemplifying this fact; a tardy union is stimulated by the welcome glass of gin, or the allowance, often not very moderate, of porter, as the case may be; and in one instance, narrated to me by a provincial surgeon of eminence, non-union of a fractured leg was traced to the patient's privation of his evening indulgence in smoking, which was forbidden by the rules of the hospital; but my friend procured a relaxation of this rule in favour of his patient, with the happiest result. The explanation of these circumstances is intelligible, if we trace the connecting links between the cause and effect. Assimilation of the food is essential to reparation, but digestion is dependent on the humour of the stomach, and the disposition of that organ depends on the ingesta and other agents, which influence it more or less directly. Thus, the diagnosis of the phase which disease resulting from lesion assumes, is often materially assisted by a proper appreciation of these circumstances.

The foregoing remarks apply with equal and even greater force where the history of pre-existent disease—*e.g.*, the presence of a poison in the system—affords to the surgeon an explanation of phenomena which would be otherwise perplexing. How long does the poison of malaria linger in the frame, and determine the intermittent type of many accidental disorders. Gout modifies or aggravates the intensity of inflammation and influences its results; but still more potentially does syphilis ofter mar reparative effort, and predispose to local results which would not occur in a healthy constitution. Under these circumstances, the necessity of treating the constitutional condition in order to cure the local complaint, proves the importance of an accurate diagnosis in such cases.

The temperament of the patient, both physical and moral, has often a material influence in determining the course of action of the surgeon, where the responsibility of a serious operation is thrown upon him; and undoubtedly peculiarities in these respects require due consideration where every element of information may assist in clearing away the obscurity of a doubtful diagnosis. The nervous excitability of one patient, the frigid impassiveness of a second, or the uncomplaining docility of a third, may so far modify the symptoms resulting from the same lesion, as materially to mislead the medical attendant, if unobservant of these peculiarities. No less does physical temperament produce similar qualifying results; and injuries are differently resented by patients belonging to the sanguine, bilious, or nervous type.

The occupation of the mechanic or artisan, which demands the special use of certain muscles, or in which some constrained position is more or less constantly maintained, not unfrequently entails unsymmetrical development, and even a certain amount of deformity which, if overlooked, may mislead the surgeon when treating an injury. In my last lecture, I took occasion to remark upon this fact, which should not be disregarded in cases where the diagnosis is not clear, and may owe its obscurity to this cause. And instances are not wanting in which, even amongst the better class of our patients, a knowledge of their ordinary engagements may throw light of considerable value on the nature and consequences of injuries or diseases of which they are the subjects; and such information may serve to guide the surgeon, not only in his diagnosis, but in his treatment.

The direct or exciting causes of surgical disease or injury are many and various, but may, as regards the latter, be classed chiefly under extremes of temperature and mechanical violence, which produce results differing as widely in their degree as in their nature, according to the intensity of the agent, or the susceptibility of the recipient. A precise acquaintance with the character of the exciting cause and the manner of its infliction is always desirable, and often essential in forming a correct diagnosis; *e.g.*, in penetrating wounds, the form, size, sharpness, and other characteristics of the weapon, enable the surgeon to determine the probable depth of a wound, and to conjecture, if not to positively ascertain, the extent of the injury and the parts that are implicated. Again, the diagnosis of injuries at or near to the ball and socket joints is materially aided by a knowledge of the way in which the accident occurred; direct violence suggests fracture, and force indirectly applied points to dislocation. So uniformly almost is this the case, so rare are the exceptions in the shoulder-joint, that a clear and well defined description of the manner in which the injury was inflicted is alone sufficient, in nearly all cases, to determine the nature of the lesion, whether it be dislocation or fracture.

Yet, whatever the value of the knowledge acquired by reference to antecedent circumstances, the existing condition of his patient is the chief source of information upon which the surgeon must rely, in forming a diagnosis of the disease or injury he has to treat. The changes which are thus offered to his inquiry may be classed under two heads, viz., subjective and objective, or those which are simply functional, and those which are sensible. Each of these possesses a value in itself, though in general its importance is very much enhanced by association with other indications pointing in the same direction. Many subjective indications or symptoms are to be ascertained only by inquiry of the patient, and especially so those which have reference exclusively to his own feelings, such as the presence, character, and localisation of pain; but others, such as the state of the tongue and of the circulation, are tested by the senses. Objective signs are exclusively sensible, and the aid of all the senses is called into requisition in determining their existence and their nature. Adventitious assistance is frequently of much value in helping the surgeon to a correct diagnosis; as, for example, the microscope in suspected cancer, the stethoscope in aneurism, accurate measurement to test the symmetry of opposite sides of the body, and the exploratory needle in doubtful tumours. To these I may add the ophthalmoscope, the laryngoscope, and an instrument with the more comprehensive title of endoscope, for the use of those who are inquisitive respecting more remote regions in the interior of their patients. Even in subjective symptoms such artificial expedients are often adopted with advantage, and the condition of the secretions, the capacity for developing heat, or the character of the pulse, are ascertained by chemical analysis, the thermometer, or the sphygmograph.

It is not my intention to detain you with a detailed description of *all* the symtoms and signs with which it is the business of the surgeon to familiarise himself, although it is my wish and design to classify and comment briefly on the more important and significant; but I shall venture first to occupy your attention for a few moments with some remarks on the *relative* value of these indications of disease or injury, individually or as noticed in association with each other; and on some sources of obscurity and fallacy to which they are obnoxious.

The importance or worth of a diagnostic sign or symptom depends upon its more or less pronounced character; or, in other words, upon its being certain and unequivocal, or doubtful. In some instances, a solitary sign, such as abnormal mobility in fracture of a long bone, or transparency in a scrotal tumour, or the audible ring of a stone in the bladder, are characteristic or pathognomonic of the injury or disease with which they are allied. But in many more, it is by the association of signs with each other, or with symptoms, that their value becomes apparent. Thus, pulsation alone is insufficient to characterise an aneurism, because other tumours likewise pulsate; but if we find associated with this sign a diminution of the swelling when the supplying artery is obstructed, and an expansive return to its previous dimensions as soon as pressure is removed from the vessel, each sign imparts a significance to the other, which alone it does not possess. In this way an accumulation of evidence may be elicited, amounting to actual demonstration, leaving no room to doubt the nature of the case which is under investigation.

Not unfrequently *negative* evidence has an important bearing on diagnosis. The presence of many symptoms and signs may point to a certain conclusion; but the absence of one particular indication may suffice to counterbalance all its positive evidence. This is occasionally exemplified in the diagnosis of tumours. Again, a tranquil pulse may be the only proof that suspected inflammation is not present,—the diagnostic distinction between cerebral excitement and inflammation.

But the value of diagnostic testimony to the existence of disease or injury varies with the capacity of the observer. The careless inquirer may overlook indications which are readily detected by the observant practitioner; or experience may teach various surgeons to place a different estimate on what they notice. Some have more tact in discriminating what is important, or in eliciting proof of what they are seeking for; in fact, it is in surgery as it is in medicine, that the senses must be well-educated, the judgment well-balanced, the fruits of experience well-stored and readily accessible; and beyond all, there must be, as I have already insisted, such classification of acquired knowledge as shall constitute a sound code of principles on which to rest, where experience is at fault and precedent fails.

Among the many tests to which the tact and judgment of the surgeon are subjected, is that of the *accidental* presence of signs or symptoms, and the relation, if any, which these may have to the subject under consideration. The relative value of concurrent signs I have already referred to; but the present is a separate question, and often one of much delicacy. It is far from rare to meet with such peculiarities as I allude to. They may be due to circumstances quite independent of the existing malady; or they may be allied with it, but without possessing any intrinsic value in determining the diagnosis in the case. They constitute for the most part the category of what I may term the "remarkable features" in the early cases, and especially the operations, of young surgeons,—features which cease to be remarkable, and which are estimated at their true value as experience ripens. Yet, on the other hand, some of these accidental or occasional concomitants are fraught with a deep and peculiar meaning to those who know how to read them aright; they are as the floating feather, showing the course of the current of air or of the silent stream.

The coexistence of various signs or symptoms suggests the consideration whether they are consistent with each other, and how far they are diagnostic of the injury or disease which is suspected. In this investigation it becomes the duty of the surgeon to unravel the tangled web, and to ascertain the simplicity or complexity of the case before him. The concurrence of dislocation, with fracture near to a joint, may give rise to such a complication; and the diagnosis of such injury is thereby rendered more obscure. Many opportunities will be afforded me of exemplifying this rife source of difficulty in the diagnosis of visceral lesions. These obscurities are sometimes intensified by the more urgent symptoms assuming such a predominance as, in part or entirely, to mask those of less prominence, though not of inferior importance in arriving at a correct conclusion. The sensations of the patient,—the pain he suffers, or the swelling of an injured part are rife sources of obscurity in such circumstances, and necessitate delay in acting, on account of the difficulties they entail. Or, again, the surgeon may be misled by deception on the part of the patient; and this source of embarrassment, as I have already observed, is not always wilful. His ignorance of the relative value of this or that indication may induce him to give prominence to one symptom, whilst he conceals another; or he may have some unrevealed motive for misguiding his medical attendant. Hysteria often perverts symptoms, by the substitution of those which are its peculiar atrributes; or the acute or chronic effects of intoxicating drink may entirely alter the phase of indications, which would otherwise stand out in bold relief.

Another source of obscurity is the functional derangement consequent on the sympathy of different organs; such, for example, as arrested or excessive secretion, irritability of the stomach or bowels, obstinate constipation, dyspnœa, convulsion, paralysis of the bladder, and a host of other sympathies, some familiar in their interpretation, others unintelligible to us. The influence and effects of prior treatment also often call for the scrutinising attention of the careful practitioner; for in them we find an explanation of modified or qualified symptoms, which would be otherwise a prolific source of fallacy in diagnosis; and which sometimes suggest the wish that the case had been transmitted to us without this additional source of obscurity. The earlier treatment of strangulated hernia, of retention of urine, of misunderstood joint injuries, present us with many and painful proofs of the importance of investigating all that the patient has had done for him by those who have had the earlier nanagement of the case.

These are the chief sources of fallacy or misdirection which occur to ne to notice in connection with surgical diagnosis. It would not be lifficult to extend this list, or to enlarge upon its details, by further illusrative commentaries on the different subjects to which I have alluded; ut this would be inconsistent with the necessarily condensed style of hese lectures; and the details of the outline I have sketched may be eadily filled in. I shall next proceed to make a few remarks on certain ymptoms and signs which have a more special import and significance n surgical diagnosis.

(*To be concluded.*)

THE PATHOLOGY OF SKIN-DISEASE.

HOSE interested in the cryptogamic diseases of the skin may be inerested to know that arrangements have been made for Mr. Tuffen Vest, F.L.S., to deliver two lectures, in connection with Mr. Hutchinon's course, on Parallel Diseases in Plants. The lectures will be given n the Library of the Hospital for Skin-Diseases, New Bridge Street, lackfriars, on Friday, July 17th, and Saturday, July 18th (this week), t 8.30 in the evening. Mr. Hutchinson also wishes us to state he has rranged for the attendance of several patients suffering from the curious alady known as Morphœa (Addison's Keloid), on Tuesday next, at alf-past three. He will be glad to submit them to the examination of ny one interested in the subject. They are supposed to illustrate the nportant proposition, that the disease has its primary seat in the nervous stem, and not in the skin.

AN ADDRESS

ON THE

ANTISEPTIC SYSTEM OF TREATMENT IN SURGERY.*

Delivered before the Medico-Chirurgical Society of Glasgow.

By JOSEPH LISTER, F.R.S.,
Professor of Surgery in the University of Glasgow, etc.

MR. PRESIDENT AND GENTLEMEN,—In order that the antiseptic system of treatment may confer upon mankind all the benefits of which it is capable, three things appear to be indispensably requisite. First, that every surgeon should be convinced of the reality and greatness of those benefits, so that he may be induced to devote to the antiseptic dressing of a case the same kind of thought and pains as he now, if at all worthy of the name of surgeon, bestows upon the planning and execution of an operation; secondly, that these efforts on his part should be directed on sound principles; and thirdly, that, for carrying out these principles, he should have thoroughly trustworthy practical means at his disposal. I venture to hope that the illustrations which I propose to bring before you this evening may promote in some degree each of these essentials.

In speaking of the antiseptic system of treatment, I refer to the systematic employment of some antiseptic substance, so as entirely to prevent the occurrence of putrefaction in the part concerned, as distinguished from the mere use of such an agent as a dressing. The latter has long been practised in many parts of the world. The former originated rather more than three years ago in this city (Glasgow). The material which I have generally used for the purpose is carbolic (or phenic) acid, which, when I first published on the subject, was new to most British surgeons as an external therapeutic agent. This circumstance, while it had the effect of attracting greater notice to the matter than might otherwise have been the case, was perhaps on the whole a misfortune, since it tended to distract attention from the essential principles of the treatment which I advocated, and to lead many in this country to look upon carbolic acid in the light of a specific. On the other hand, continental surgeons visiting our Infirmary, familiar with the use of carbolic acid as an ordinary antiseptic dressing, have invariably formed a just estimate of the advantages derived from its employment upon the system to which I have alluded.

So far from carbolic acid being a specific, it owes its virtues to properties which it possesses in common with various other substances; and results similar in kind to those obtained by its means might be got by disinfectants long familiar to British surgery, provided always that the same principles guided their employment. This statement is not made on theoretical grounds alone. About nine months after I had first treated compound fracture with carbolic acid, Mr. Campbell De Morgan published a paper "On the Use of Chloride of Zinc in Surgical Operations and Injuries," and was kind enough to send me a copy of it. By means of this salt he had obtained highly satisfactory results, though led to employ it with a very different object in view. Mr. De Morgan used chloride of zinc in the first instance in cases of cancer, upon the idea that the frequency of return of the disease after operation might depend on the dissemination of its germs on the cut surface, and he hoped that, by applying a strong solution of the chloride to the wound so as to destroy any cancer-germs that might be scattered over it, he might diminish the chance of recurrence. Having treated cases of cancer in this way, he found that the wounds healed unusually kindly, while there was, at the same time, an absence of "animal odour," and he expressed his surprise at the small amount of "action" in the part. To myself it appeared perfectly natural that, if chloride of zinc prevented animal odour, implying that putrefaction was avoided, the wound, protected from the irritating influence of the products of decomposition, should exhibit little inflammatory disturbance. But it struck me as very remarkable that a single application of chloride of zinc to the raw surface should have the effect of preventing all odour of putrefaction for days afterwards; for I knew that in the case of carbolic acid a renewal of the antiseptic to the exterior was essential in order to prevent decomposition. Hence it appeared likely that chloride of zinc would answer better for my purpose than carbolic acid, and I determined, on the first suitable occasion, to give it a trial. It was not long before an opportunity presented itself.

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* This address does not profess to give a complete account of the antiseptic system, but was based upon some illustrations which happened to be at my disposal. One of these, an experiment in support of the germ-theory of putrefaction, was dwelt upon at considerable length, in accordance with what I believe to be the great practical importance of the subject to which it refers.

Case of Compound Fracture Treated with Chloride of Zinc.—A labourer was admitted into the Infirmary with compound depressed fracture of the *os frontis*, caused by violent impact of the handle of a winch. I applied chloride of zinc solution thoroughly to the interior of the wound, and, with the view of preventing the spreading of decomposition inwards, adapted to the forehead a plate of clean block tin overlapping the sound skin for a considerable distance, a means which, as I had before ascertained, prevents the occurrence of putrefaction in the discharge from a healthy granulating sore. The tin plate was kept in position by a piece of strapping, and over all was laid a damp folded rag to absorb discharge, with directions that it should be frequently changed. The tin was not disturbed till about a week had expired, the patient meanwhile remaining free from any unfavourable symptoms, and not a drop of pus appearing. On removing the plate of metal, I found that the wound, instead of being hollow as when I had last seen it, was on a level with the surface of the forehead, being occupied by a chocolate-coloured mass which I supposed to be a clot, altered by the action of chloride of zinc. But when I scraped the surface of this material it bled, shewing that it was in reality alive and vascular. This exactly corresponded to the most striking and peculiar of the results I had seen to follow the use of carbolic acid in compound fracture (see the *Lancet*, March 16th, 1867), and the most likely to be mistaken for the effect of a specific action of that substance, viz., that the blood acted on by the antiseptic, though greatly altered by that action, remained susceptible of organisation. Or, speaking more strictly, the product of the action of chloride of zinc upon the blood, like that of the operation of carbolic acid upon it, so soon as the irritating antiseptic material with which it was at first imbued had been withdrawn from it by diffusion into the surrounding circulation, proved a suitable pabulum for the growing elements of living tissue in the vicinity, which accordingly absorbed and appropriated it.

In the case just related, nothing could be more satisfactory than the effects of chloride of zinc. Subsequent trials, however, proved it to be very inferior to carbolic acid except in one clsss of cases, those, viz., in which, from the circumstances of the part concerned, it is impossible to maintain an efficient external antiseptic dressing, so that the application must be made once for all at the time of the operation. Here the permanence of the effects of chloride of zinc renders it highly valuable, as, for example, after the removal of portions of the maxillary bones. Every surgeon is familiar with the highly offensive character of the discharge for the first few days after such operations; and there can be no doubt that the fœtid state of the wound, besides being a great inconvenience to the patient and his attendants, involves a certain amount of danger. By means of chloride of zinc this complication is nearly, if not entirely avoided. In the first case of this kind in which I used it, I had to remove a considerable portion of both superior maxillary bones, on account of epithelial cancer which had spread to them from the face. I applied the chloride of zinc solution freely to the raw surfaces at the time of the operation, and afterwards examined the breath daily, when the only smell perceptible from first to last was an occasional odour of tobacco. [Since this address was delivered, I have used chloride of zinc with great advantage after the removal of the tongue by Mr. Syme's method, in a case of epithelial cancer.]

But in ordinary cases carbolic acid is very superior to chloride of zinc, and, so far as I am able to judge, to any other antiseptic agent with which we are at present acquainted. It presents, indeed, a remarkable combination of advantages. In the first place, it possesses the essential requisite of being a most potent poison for the low forms of life which determine putrefaction, and it retains this power even though diluted to such a degree as to be almost entirely unirritating to the tissues of the human body. In the second place, it is volatile, and its vapour is quite efficacious as an antiseptic. This gives it a great advantage over chloride of zinc or any other non-volatile substance, enabling the dressings impregnated with the acid to exert their influence not only upon objects in actual contact with them, but also upon the air in their vicinity. Again, carbolic acid is a local anæsthetic, and exercises a most soothing influence upon a painful wound. Lastly, carbolic acid is soluble in a variety of liquids of very different properties, so different, for example, as water and the fixed oils; and each of these solutions has its own special value in practice, a point to which I shall have occasion to allude further on in this communication.

And now, before speaking of some cases treated with carbolic acid on the antiseptic system, I wish to direct your attention to an experiment illustrating the germ-theory of putrefaction. It is on this theory that the antiseptic system of treatment is based; and I venture to say that, without a belief in the truth of that theory, no man can be thoroughly successful in the treatment. If any one believe that putrefaction, through atmospheric influence, is due to the operation of the atmospheric gases alone upon the putrescible materials, he will be perpetually meeting with the most perplexing anomalies, and will be liable to commit the most serious practical blunders; the truth being that, on the one hand, the complete exclusion of the gases of the air affords no security against the occurrence of putrefaction, and that, on the other hand, the freest admixture of air with the putrescible contents of a wound or abscess will fail to induce putrefactive changes, if the germs of that air have been removed by filtration or deprived of vitality by a germ-poison. Of this I might, if time permitted, give several very striking illustrations from practical surgery.

The experiment which I wish to bring under your notice is a modification of one described by Pasteur (see *Comptes Rendus*, vol. l, p. 306), not, indeed, as originated by himself, but by M. Chevreul. It is so simple, and, at the same time, so conclusive, that it should, I think, if believed, carry conviction to the minds of all. To myself the statement of Pasteur, confirmed as it is by the report of the Commission of the French Academy, before whom this, as well as various others of his experiments was performed, was perfectly satisfactory. But there was one reason that made me anxious to repeat the experiment as bearing upon the antiseptic system of treatment; and this was that, so far as I read Pasteur's papers, he had performed it only with reference to the fermentation of a saccharine solution, and I wished to make sure that it applied equally to putrefaction. The experiment was performed in the following manner.

Experiment in support of the Germ-Theory of Putrefaction.—On the 26th of October, just half a year ago, I introduced portions of the same specimen of fresh urine into four flasks, of which these are two. [The flasks, which were capable of containing about six fluid ounces each, were about one-third filled.] After washing the urine from their necks, which were then wide and straight, I drew out the necks by means of a spirit-lamp into tubes about a line in diameter, and in three of the flasks bent these elongated and attenuated necks at various acute angles, as you will see in one of the two before you. In the remaining flask, the neck was cut short and left vertical in position as you see it here, but its orifice was reduced to even smaller calibre than in the others. Each flask was then boiled over the lamp, and the fluid maintained in a state of ebullition for five minutes, the steam issuing freely from the orifice. The lamp was then withdrawn, and atmospheric air was permitted to rush into the flask to supply the place of the condensed steam. The flasks were then left undisturbed in the same room, the ends of their necks being still open so as to permit free exit and entrance of air as a consequence of the diurnal changes of temperature which, of course, involved alternate expansions and condensations of the contained gases. Sometimes on a cold night I have raised the temperature of the apartment considerably, and then putting the fire out, have thrown open the windows so as to occasion a depression of temperature of 20 degrees, involving the entrance of about a cubic inch of fresh air into the body of each flask. But, independently of any such exceptional treatment, a perpetual daily interchange took place between the air inside the flasks and that of the room in which they stood. And what has been the result of the action of the air upon the urine? In the flask with straight and short, though narrow neck, I observed after ten days a minute filamentous object at the bottom of the glass. It grew larger from day to day, and was evidently a kind of minute vegetation; and on applying a pocket magnifier, it was seen to consist of delicate branching threads. Four days after this growth first appeared, I observed an object floating on the surface of the liquid, evidently also a minute fungus; but this in the course of a few days clearly shewed itself to be of a different kind, consisting of straight radiating filaments much more closely packed, while to the naked eye its appearance was much denser than the other, which was beautifully feathery and delicate, and its colour bluish-grey instead of perfectly colourless like the first. The two differed also remarkably in their rate of growth, that at the bottom of the vessel springing up with rapidity, so that a month after the commencement of the experiment it occupied about half the mass of the fluid, while the floating kind, though it had been steadily enlarging, had attained only about the size of a pea. Meanwhile the urine had been undergoing a change in chemical constitution, as was indicated by an alteration of its colour from a pale straw to a deep amber tint. But in the meantime, what was the condition of the urine in the three other flasks, with bent necks, of which this is a sample? You observe it is perfectly clear and bright, free from cloud, scum, or sediment, and it retains its original straw colour, contrasting strikingly with the amber tint of the other. In short, it has precisely the same appearance as it had at the outset. I may add that, on the day after these flasks were prepared, having another similar one at my disposal, I introduced into it some fresh urine from the same source, drew out the neck and bent it into angular form, and treated it like the others, so that I have thus four flasks of boiled urine communicating with the air though bent tubes; and in all of these the urine has remained with unchanged colour and undiminished transparency. It can hardly be doubted that this completely unaltered appearance of the fluid is associated with absence of putrefaction. I shall take an early opportunity of ascertaining whether such is the fact or not; but in the meantime, suppose we assume that it is so. [Since the delivery of this address, viz., on the 2nd inst. (May 1868), I poured out about half an ounce of urine from one of the flasks with bent neck into a wine-glass, and examined it. Its odour was perfectly sweet, and its reaction faintly acid to litmus paper, while under the microscope it shewed not the slightest appearance of anything possessing vitality. I then covered the wine-glass with a piece of sheet gutta-percha to prevent evaporation, and left it at a temperature of about 70 degrees. Three days later it had already lost its brilliant transparency, and a distinct change had occurred in its odour, which had assumed something of the smell that urine has when evaporated to dryness. And under the microscope, organic forms of different kinds were present in abundance, some of them motionless delicate elongated rods (bacteria?), others with wriggling movements, apparently of vibrionic nature, while there were also numerous amorphous and faint granules, probably also organic. Nine days after the urine had been placed in the glass, two little woolly balls of fungus were visible in it to the naked eye. In correcting the proof, I may add that the urine is now thronged with fungous growths of at least three different species; while the odour is highly offensive. But the hot summer weather of the last two months has produced no change in the contents of either of the flasks with bent necks.] Observe, then, what inference is to be drawn from this remarkable fact. There has been nothing in the bent tubes that could by possibility interfere with the transit of any of the gases of the atmosphere. At first, indeed, they contained some drops of condensed aqueous vapour; but these in a few days disappeared, the tubes being dried by the air passing through them, and I beg you particularly to observe that, in the instance before you, the tube is open and dry from end to end. Every atmospheric gas, therefore, in whatever proportion it may exist, must have daily passed unchanged into the flasks to exert upon the putrescible urine any influence of which it was capable; yet no putrefaction has occurred. The urine has remained absolutely free from putrefactive changes for half a year, though exposed during the whole of that time to the action of all the gases of the atmosphere, perpetually renewed. Surely we are safe in drawing the inference that, in the case of this putrescible substance at least, the atmospheric gases alone are incapable of inducing putrefaction. What is it, then, that is essential to putrefaction of urine by atmospheric influence which the bent tubes have arrested? It cannot be any of the gases; but it may be, it must be, some particles suspended in them, some dust, which the angles of the tubes might arrest mechanically. And this conclusion, inevitable as it is from the consideration of the flasks with bent necks, is confirmed by comparison with the other in which the orifice, though narrower, was purposely so arranged as to afford a better chance for the introduction of particles of dust, and in which accordingly chemical changes soon declared themselves in the contained liquid.

This experiment has an equally clear bearing upon the question of equivocal generation, essentially involved in the germ-theory of putrefaction. It illustrates strikingly what appears to be the truth; viz., that even the lowest and most minute forms of life with which we are conversant, do not arise spontaneously in organic substances as the result of the operation of the atmospheric gases upon them, but take their origin from definite particles or germs, the offspring of pre-existing organisms. For, on the one hand, we have seen that this liquid, which is a most favourable nidus for such development, has remained for half a year free from any change in its appearance such as even microscopic organisms would produce, though exposed freely during that long period to the influence of air unchanged except in the circumstance that it has been filtered of suspended particles. And, on the other hand, this same liquid similarly situated in every respect, except in the fact that particles floating in the atmosphere might gain access to it, soon presented, even to the naked eye, two distinct kinds of vegetation, each springing from a definite point, and growing steadily from that point, but incapable of taking origin in any other part of the liquid. [The facts subsequently ascertained, of the absence of any living organism which the microscope could detect in the liquid from one of the flasks with bent neck, and the speedy appearance of abundance of such minute objects as well as of others visible to the naked eye, when the liquid had been removed from its protecting chamber, afford, of course, most satisfactory confirmation.]

There is one circumstance in this experiment which may appear difficult to comprehend. Admitting that the angles of a narrow bent tube might arrest the progress of even the finest dust of air when in very gentle motion, is it conceivable that such particles could fail to be driven into the flasks during the first rush of air into them on the withdrawal of the lamp at the time of the original boiling? This difficulty is met by Pasteur in the following way. He says doubtless germs are carried in, but they pass into a liquid so hot as at once to destroy their vitality. Now, though I feel much diffidence in expressing dissent from so high an authority, I must say I do not feel satisfied with this explanation; inasmuch as Pasteur has himself related experiments which show that the mere raising of urine to the temperature of 212 deg. Fahr. is not sufficient to ensure the destruction of the vitality of the tough-lived germs which it may contain; but that it is essential for that purpose to maintain the liquid for some minutes at the boiling point. (*Comptes Rendus*, vol. l, p. 306.) But, if this be so, the germs introduced on the withdrawal of the lamp, being under the same circumstances as those in urine simply raised to 212 deg. Fahr., and at once allowed to cool, should retain their vitality and give rise to organic development. The explanation which has occurred to myself is as follows. Immediately that the steam ceases to issue from the tube on the removal of the lamp, moisture is deposited upon its interior from the condensation of the aqueous vapour in it; and this moisture remains clinging to the interior of the tube, and tending to form drops at its angles, however rapidly the air be driven through it. And it seems to me natural that this water in the tube should arrest the particles in the air transmitted through it. Conversely, I am inclined to think that the germs of the two growths visible to the naked eye in the flask with straight and short neck entered with the first rush of air, but retained their vitality in the hot liquid, as in Pasteur's experiments, with urine heated to 212 deg. Fahr. and at once cooled. These two fungi had already grown to a sufficient size to be distinguishable by the naked eye, within a few days of the commencement of the experiment, but no other points of growth appeared during the ensuing month; implying that the germs of such fungi, though admitted at first, when the air entered rapidly, were excluded by the narrow, though straight, neck during the slow movements caused by the gradual diurnal changes of temperature.

Believing that there must be germs of various organisms adhering to the interior of the narrow neck near its orifice, I thought that if I were to seal the orifice, and then allow some of the liquid to pass up to its immediate vicinity, I might wash down some of them into the body of the flask, and so induce other growths in the urine. Accordingly, on November 20th, nearly a month after the commencement of the experiment, I sealed the end of the tube with the blow-pipe, protecting the neighbouring parts of the neck from the flame as well as I could with a bit of wet lint wrapped round it. I then tilted the flask so as to cause some of the urine to pass into the neck and back again; and you will observe that there is still a drop in the immediate vicinity of the sealed extremity. A few days later, I imagined that I had attained my object, as several minute points of growth were seen upon the surface of the liquid, distinct from the original floating mass, which by this time had assumed a really beautiful appearance, its upper surface being a circle of three quarters of an inch in diameter, composed of concentric rings of blue mould. But, in the course of a few more days, it became evident that the new growths were of identically the same species as the original floating one; and, on the other hand, that the drop near the end of the neck remained perfectly transparent, instead of exhibiting fungous developments as I had anticipated. Hence I inferred that the germs, which I could not doubt must have existed near the orifice, had been arrested so close to it as to be destroyed by the heat of the flame. Whence, then, did the new growths in the body of the flask take their origin? The answer is obvious enough. The blue mould covering the surface of the original growth teemed with myriads of sporules of the fungus, and, like larger plants, was ready to shed its ripe seeds when shaken; and the tilting of the flask, which had up to that time been carefully kept from disturbance, scattered some of these ripe germs, which grew into organisms like their parent. About a month after the sealing of the tube, all further growth of the fungi in the flask ceased, and its contents have remained unchanged for the last four months, except that the fungi have become shrunk and unhealthy in aspect. This I attribute to the cutting off of the supply of oxygen by the sealing of the tube. [This view has since been verified. On the 2nd inst. (May 1868), I broke off the sealed end of the neck after scratching it with a file, leaving the flask otherwise undisturbed. In four days, I detected the first indications of return of the growth which had been so long suspended; and, a few days later, the dwindled and discoloured original growths were abundantly covered with fresh vegetations of the same nature as before, while the surface of the fluid presented multitudes of new points of development of the same species; the unavoidable motion of the liquid in conveying the flask to and from the meeting, which indeed greatly marred the beauty of the fungi, having evidently scattered other germs about, which remained latent till fresh air was admitted.]

Looking at this experiment as a whole, we see that the atmosphere was rendered incapable of inducing in that specimen of urine either putrefaction or the formation of even the lowest and most minute known organisms, by merely depriving it of its suspended particles; or, conversely, that the "air-dust" is the essential cause both of organic development and of putrefactive changes in such a liquid; while the experiment further illustrates what seems to be a general law; viz., that the low forms of life to which the atmospheric particles give rise, so far as we are able to observe them, resemble higher plants or animals in springing only from pre-existing organisms. Any one who bears these facts in mind will have little difficulty in admitting the truth of the germ theory of putrefaction; and I venture to recommend to any of you who may hereafter feel perplexed by the contradictory and bewildering statements of various authors upon this subject, and be tempted to regard it as hopelessly obscure, that he should recall to his memory the clear evidence respecting it which has been brought before you this evening.

Emphysema and Pneumothorax from Simple Fracture of the Ribs.—This mode of experimenting, as described by Pasteur, besides charming me by its simplicity and conclusiveness, had a further special interest for myself, because, before knowing of it, I had explained to my own mind on the same principle the remarkable fact, previously quite inexplicable, that, in simple fracture of the ribs, if the lung be punctured by a fragment driven inwards upon it, the blood effused into the pleural cavity from the wound in the highly vascular organ, though freely mixed with air which enters the pleura through the same orifice, undergoes no decomposition, as is clearly implied by the absence of any symptoms of pleurisy in such cases. The air is sometimes pumped into the pleural cavity in such abundance that, making its way through the wound in the pleura costalis, it inflates the cellular tissue of the whole body; yet this occasions no alarm to the surgeon, unless the opening in the parietal pleura become insufficient to permit free egress for the air, which then becomes pent up in the serous cavity, and, distending it far beyond its natural dimensions, encroaches on the other lung so seriously as to embarrass or even abolish its functions. Thirteen years ago, I had the opportunity of making a *post mortem* examination of the body of a man who had died under such circumstances ten days after the receipt of the injury which caused his symptoms; and I was much struck to find the enormously distended pleura free from effusion, and perfectly smooth and healthy. Why air introduced into the pleura through a wounded lung should have such totally different effects from that entering through a permanently open penetrating wound from without, was to me a complete mystery till I heard of the germ-theory of putrefaction, when it at once occurred to me that, though we could not suppose the gases of the atmosphere to be in any way altered in chemical composition by passing through the trachea and bronchial tubes on their way into the pleura, it was only natural that they should be filtered of germs by the air-passages, one of whose offices it is to arrest inhaled particles of dust, and prevent them from entering the air-cells. In truth, this fact in practical surgery, when duly considered, affords as good evidence in support of the germ-theory of putrefaction as any experiment that can be performed artificially.

Another remarkable example of the same thing, though brought about by different circumstances, occurred recently in my practice at the Infirmary.

Case of Penetrating Wound of the Thorax and Abdomen.—On the 1st of October last, a butcher, aged 18, was admitted on account of a most serious wound of the chest, inflicted by a comrade who, angry at having a dirty bladder thrown at him by the patient, threw in return his knife, with a blade nine inches long, and keen edged, half of which buried itself in the patient's infra-axillary region, between the ninth and tenth ribs. He himself drew out the knife, which was followed by a fearful gush of blood. Being accustomed to see blood flow, he said "there was a spout of four inches before the fall." He was immediately taken to the hospital, where my then House-Surgeon, Mr. Hector Cameron, found him blanched, his clothes drenched with blood, which was still pouring from the wound, venous in colour, and with a tendency to regurgitate during inspiration, implying that it proceeded from a wound in the lung, which was further indicated by the occurrence of hæmoptysis. There was also protruding from the external wound a piece of omentum five inches long, shewing that the knife had passed through the diaphragm into the abdominal cavity. No time was to be lost, as death from hæmorrhage was imminent; and Mr. Cameron judged it best to plug the wound, but at the same time to introduce an antiseptic as in compound fracture, in order to destroy any atmospheric germs that might have been drawn in during inspiration. With this object, after cutting off the protruding piece of omentum, which he kept to show me, he soaked a piece of lint with a solution of carbolic acid in four parts of boiled linseed oil, and by means of dressing forceps passed it as far as he could in every direction in the pleural cavity, repeating the application several times. He then took two strips of lint steeped in the same solution, each about a foot long and an inch in breadth, and pushed them into the pleura one upwards, the other downwards, as far as possible consistently with keeping their ends protruding externally; and, the wound being thus plugged antiseptically, he applied a sheet of paste composed of whitening mixed with the oily solution of carbolic acid before-mentioned, taking care that it was large enough to overlap the skin around the orifice by several inches in every direction, retaining it in position by strapping and bandage. It may, perhaps, be said by some of you, "Surely it was heroic practice to introduce irritating carbolic acid so freely into that important serous cavity. Would it not have been a milder and more prudent course to have plugged the wound with a piece of dry lint?" But any one who argues in this way forgets what would have been the inevitable result of such a procedure. The mass of blood accumulated in the pleura would necessarily have been soon decomposed through the agency of the germs contained in the lint; and the putrefying mass, growing from day to day more acrid in the cavity in which it was confined, would undoubtedly have soon caused the death of the already prostrated patient. On the other hand, carbolic acid, being a local anæsthetic, is much less irritating, even when first applied, than the products of decomposition; and it also differs from the latter in this all-important point, that it soon becomes dissipated by diffusion and removed by the surrounding circulation, when, the blood on which it has acted being still amenable to organisation and absorption, the part is as favourably situated as if affected only with a subcutaneous injury. Next day, when I saw the patient for the first time, I cautiously withdrew the plugs, under the protection of a large piece of lint dipped in the oily solution of carbolic acid, and continued the use of the paste. For about ten days the patient progresssed admirably, the pulse descending, the laboured rapid respirations growing less laboured and less rapid, and altogether his condition becoming so much improved that he could not be prevented from sitting up in bed, singing songs and conducting himself otherwise in an imprudent manner. Meanwhile, examination of the thorax disclosed signs of the presence of both blood and air in the pleura, such as dulness of the base and preternatural resonance of the upper and anterior part of that side of the chest, and metallic tinkling, which was well-marked. And to such an extent had this accumulation of blood and air proceeded, that the heart had been pushed over towards the right side, so that its apex beat below the right nipple. And yet this mass of blood, freely exposed to the influence of air, had not decomposed. Any putrefactive germs introduced through the external wound had been destroyed by the carbolic acid, and the air, entering the pleura through the wounded bronchial tubes, had deposited its floating organisms upon the slimy mucous secretion of those tortuous canals. Hence the patient remained free from any symptoms of irritation, and suffered only from loss of blood and the embarrassment of the respiration which was the mechanical result of the injury. But, thirteen days after the accident, profuse hæmoptysis appeared, which I was disposed to attribute to tearing open of the wound in the lung through his imprudent exertions; and this, continuing for several days, threatened entirely to exhaust his weakened frame. The expectorated blood assumed also a putrid odour, like that from gangrene of the lungs; and I was apprehensive that the putrescence might spread to the mass in the pleura. Fortunately, however, this did not occur. The bloody expectoration gradually became purulent, and then diminished in quantity till it ceased entirely. With regard to the external wound, it furnished no pus so long as the original mode of dressing was continued. In the first twenty-four hours, there was a free discharge of bloody serum; but this grew less from day to day, till, six days after the receipt of the injury, it amounted to less than a minim in forty-eight hours; and when the piece of lint, which had been kept permanently on the wound beneath the paste, was removed, between three and four weeks after the accident, a superficial sore was found, which afterwards cicatrised kindly. On November 18th, seven weeks after his admission, the apex of the heart was observed to be again beating below the left mammilla; and, finally, I may add, that he was seen a few days ago by Mr. Cameron, engaged with another butcher in driving a herd of unruly cattle through the streets, when our former patient, though still pale from anæmia, proved the more vigorous of the two in turning the animals; while his lusty exclamations, though not couched in the most decorous language, gave satisfactory evidence of the soundness of his lungs.

[*To be continued.*]

THE SANITARY REGULATION OF FACTORIES:

BEING AN ADDRESS INAUGURATING THE ASSOCIATION OF CERTIFYING SURGEONS.

By JOHN T. ARLIDGE, M.D.Lond., President of the Association.

THE two principal or leading objects contemplated by our purpose as an Association are—1. The observation and collection of facts tending o promote the advance of sanitary science, and the relief and prevention of disease incident to the various processes of manufacture; and 2. The consolidation and improvement of our position, in its relation to the Government and the public, and the promotion of the interests of the profession generally in all that relates to State Medicine.

With reference to the first purpose, the second and third paragraphs from the excellent circular letter of Mr. Inspector Baker, which I will read to you, supply the best general indications for accomplishing it, whether by individual or united action.

"You will render a great service to the cause of factory legislation, especially in relation to its bearings upon the sanitary state of those engaged in manufacture, by collecting all information procurable, respecting the physical development, the frequency of deformity, the prevalence of disease, and particularly of special disorders, the distinctive effects of the principal kinds of labour, the average duration of life, the rate of mortality, and the prevailing causes of death among the several classes of workpeople coming under your observation.

"Similar advantage will accrue from facts gathered concerning the circumstances and conditions (so far as they relate to the sanitary state of those employed) of labour in any manufacturing process coming under your cognisance; and likewise from facts regarding the moral condition, the prevalence of intoxication, and the state of education among the manufacturing classes in your district."

The value of such inquiries as are here briefly sketched cannot be exaggerated. They touch on the very life-springs of a nation; yet they have never yet been systematically carried out. Various Parliamentary committees, and especially the Children's Employment Commissioners, have unfolded to an almost incredulous nation the miserable moral and physical degradation of a large proportion of our manufacturing, and, I may add, agricultural classes; the consequence of uncontrolled labour, and of ignorance of, and inattention to, the most rudimentary laws of anitary science.

But, though much has been brought to light by the inquiries of such commissions, doubtless much remains still unrevealed; and, above all, an immense field of medical research, having for its practical object the prevention and diminution of disease and the general improved physical well being of the manufacturing class, remains to be worked. Surely his field of labour pre-eminently demands our services—the services of hose who are daily brought face to face with factory labour and factory operatives, and who possess the best means of estimating the results of uch labour and of knowing the condition of the labourers.

But how little has hitherto been effected by medical men in the way of research into the effects of various kinds of labour upon the physical nd moral condition of those engaged in them! How few are the books or essays treating of the diseases especially engendered by certain manufacturing processes, and of the state of physical development among actory operatives! How slight and doubtful is our information relative o the average duration of life, and the comparative rate of mortality, of he different classes of our manufacturing population!

Yet no one will deny that accurate knowledge on all such matters is f paramount importance for any community. It is knowledge not only f interest and advantage to the medical profession, but equally so, also, o the legislature and the nation at large; and to whom will the legislaure and the people of this country look for such knowledge other than urselves?

Time was when every man did that which seemed right in his own yes in all that relates to the conditions and circumstances of labour. No law but that of gain; no limit to labour but that of physical endurnce pushed to the extremest point, or even beyond that; and no consieration of the sanitary condition of the work and workshop—obtained n this so-called civilised country until within the lifetime of most of us. There was great misgiving respecting the Government which should attempt anything beyond the repression of the spoliation of the property, nd of the murder, of its subjects. But, happily, this is changed; and he Government of the day recognises that, if a moral chaos is to be voided, and if a progressive deterioration of the race is to be arrested, here must be publicly prescribed conditions of labour, and a more or ss enforced education of the working classes. Hence the enactment and progressive extensions of the Factory Act; hence, also, the Labour Regulation Act and several minor measures aiming at the same objects. We who are gathered here to-day are especially concerned in the carrying out of those Acts. It is for us to make those Acts as efficient as possible; and to aim, moreover, as patriotic citizens as well as medical men, to discover in what direction those measures can be best extended and improved.

These remarks lead on to the consideration of the second purpose contemplated in the formation of this Association. In other words, we have to make good, and to advance, our position and influence as medical men engaged in the public service. We must demonstrate our usefulness as state medical officers, and, in addition, strive to show that our functions can be extended, and ought to be extended. And how can we better fulfil these indications than by working out the programme presented in Mr. Inspector Baker's circular letter, and, by combining together for this purpose and likewise for bringing to bear the result of united deliberations and of united action in future legislation on sanitary medicine?

If the medical profession is ever to vindicate for itself its true position in the state, it must be effected by the association of its members for the purpose of united action. We, the certifying medical officers under the Factory Act, number above 800. We have a common employment as such; we constitute an essential portion of the mechanism of the Act; we have singular opportunities for observation and for gaining information in all that relates to the intent and carrying out of that Act, and in consequence for making our value known to our legislators and their constituents. But withal we have had no bond of union; no organisation for directing and advising, for considering suggestions, or for representing our aims and wishes to those in authority; and, excepting the Inspectors' Reports, no medium for receiving and utilising the knowledge and experience gained.

Depend upon it, this chaotic state of ours cannot last. Whilst the old Factory Act alone existed, and its operations were limited to scattered places and districts, the factory surgeons ranked doubtless among local evils incident to those districts. But now that, by successive extensions of the Act, all factory labour is brought under the law, and medical officers are appointed to give effect to its provisions in every portion of the country, they assume quite another character, and the form of a public institution involving a species of taxation in every town in the kingdom. Their purpose, utility, and cost, become debated; and the question is raised whether the objects of the Act cannot be carried out without enlisting the services of medical men at all. Most of you will be aware that the necessity and value of the machinery of certifying medical officers are often the theme of discussion. Indeed, the subject was mooted in the House of Commons in the last Parliament, when the extension of the provisions of the Act to iron-works was brought forward; and you may form some judgment respecting the direction and the character of popular feeling by reading the discussion, and still more by the passing of the permissive clause dispensing with the aid of such officers on application to the Home Secretary. No general scheme has hitherto been proposed, and none is perhaps at once apparent, fitted to supersede the present system of medical certificates. All special regulations as yet made are so complicated and troublesome that no inducement exists to resort to them; and I am persuaded that the interests and well being of the working classes and the efficiency of the Factory Acts demand the employment of medical men, not only to the extent in which that employment is at present called for, but to a still greater extent.

But, if the present medical machinery of the Factory Act is to be maintained, and still more if it is to be enlarged, its constituent members must be united in harmonious working, in self-support, and in the assertion and demonstration of their importance in it. It will no longer do to appear almost exclusively concerned with certifying the age of those hired to work; for schemes may be suggested whereby the question of the age of children and young persons can be solved without the assistance of certifying surgeons. No! we must indicate our importance in the administration of the Factory Act, as medical men, by working out those great sanitary problems contained in Mr. Inspector Baker's circular letter. But we must not stop there; for it is incumbent upon us to demonstrate to the public that, to give due effect to the legislation of Parliament for the protection and regulation of labour, for the preservation of the health and physical well-being of the operative classes, and in general for all sanitary purposes, the assistance and co-operation of medical men is an essential element.

Indeed, if we examine the purposes, the provisions, and the whole machinery of the Factory Acts, we shall not be astonished at the introduction of the medical agency as it now exists, but rather at the small share in their operations allotted to that agency. The most important purposes and objects of those Acts partake of a medical character.

They refer to the conditions and circumstances of all sorts of labour, so far as they affect the health of those engaged therein; and they refer, again, to the protection of the workpeople against undue and unfit labour. The securing of proper ventilation; the discovery of causes connected with the workshops and work detrimental to health; the protection against, and the remedial measures needed for, noxious processes of trade; the detection of disease, or of morbid conditions incompatible with personal or with associated labour; the recognition of due maturity for employment,—such are the most important objects contemplated by Factory Acts. For I must call the provisions relating to overtime, the fencing of machinery, the proper keeping of books, and such-like, very subordinate, though indeed necessary, matters in those enactments.

Nevertheless, oddly, and I may say absurdly enough, those especially medical matters are placed in the hands of non-medical men for performance; for the subinspectors of factories are, I believe, without exception, or perhaps with that solitary exception which, as is said, proves the rule, non-medical men—very worthy, industrious, and able men, ofttimes admirably adapted to secure the general working of the Act, but untrained to execute the medical functions that constitute its intrinsic value. And the question remains for answer, Are the sanitary provisions of the Act brought as completely and efficiently into operation as they might be? Happily, one of the inspectors—Mr. Baker—is a medical man, and is competent to supervise the execution of those provisions; but, with half a kingdom to inspect, a personal oversight and a precise knowledge of the efficient working of the sanitary conditions required by the Act is impossible.

It is somewhat a marvel that the Act is so well worked, considering the heterogeneous class of unemployed gentlemen from which subinspectors are chosen, and the extraordinary sort of examination to which they are subjected, with the supposed view of ascertaining their qualifications for the office they aspire to. Many fashionable gentlemen about town are fortunately excluded from office by an unfortunate failing on their part to spell and write something like grammatical English, or to solve certain elementary problems in arithmetic, geography, and history. How the public service would fare, were a really sensible and practical examination enforced, were the candidates required to know the composition of air and the mode of detecting its impurities, the cubic capacity required for health, the indications of disease, the consequences of poisons used in certain processes, and such-like matter—is a question which the government authorities have never entertained, and may fear to face. Yet no authorities would fail to see the patent absurdity of asking medical functions from non-medical men; or, on the other hand, the advantages of having the services of those specially trained for such functions. Here is a matter for you, gentlemen, to think over. There is this much to be said, that no monetary inducements exist to tempt medical men to seek the office of subinspectors. An income of £300 a year, increased by prolonged service to £500, can act as no gilded bait to a professional man; yet there are medical men, doubtless, who would willingly accept such appointments, particularly among those possessing private means, and not caring for the battle to be waged in winning private practice.

But, further, would you as medical men show the Government how your professional knowledge and training could, in the capacity of subinspectors, be brought to bear in the more thorough execution of the sanitary clauses of the Factory Act; would you, moreover, demonstrate how such clauses could be amended and enlarged for a still more complete supervision, with a view to the material and physical welfare of the employed, and the amelioration of the conditions of labour; and, lastly, would you make clear to manufacturers the value to them, even in a pecuniary sense, of having healthy labour, and of obviating the prejudicial effects of substances and processes in use by them—you could not fail to advance the position, and therewith the emoluments, of the office.

The passing of the Labour Regulation Bill is a proof of the desire of Parliament to deal more thoroughly with labour and manufacture in their sanitary aspects. But it was felt that this Act could not be placed, for administration, in the hands of the factory inspectors. As was remarked, it would, in order to fully carry out its provisions, require an army of inspectors; and so, in the absence of any tangible plan, its execution was made everybody's business; that is, it was handed over to the discretion of local authorities, and rendered abortive. This result was foreseen, and no one is surprised at it; and the revision and amendment of the measure remain to be accomplished by the new Parliament. In the meantime, it should seriously occupy our attention. It seems to me that medical men are the proper persons to administer such an Act. A medical man is to be found in every town and considerable village, and presents a most fitting agency for exercising the supervision and authority called for by a workshop regulation Bill. I will not here go into detail to show this, but commend it to your earnest consideration; for otherwise, if you neglect to put in a claim for medical agency in this measure, you will have yourselves wholly ignored, and see medical functions usurped by inspectors of nuisances and policemen.

I might refer to other Parliamentary measures and propositions in which you, as certifying medical officers, are deeply concerned, and in which, from apathy and the want of combination or a common centre of action, you have been, or are likely to be ignored. I would, just for example, direct your attention to the Acts passed for the inspection and supervision of bakehouses, of millinery establishments, and of chemical works, wherein the police or other improper agents are set to work in looking after sanitary arrangements. In short, there has been of late years, an immense amount of inchoate, tentative, and incoherent legislation, which must eventually break down, and, in doing so, may involve good work in its downfall. This legislation must, sooner or later, be revised and digested, and unless the medical profession is prepared to surrender its position in the State, or, rather, to abate the little pretensions to importance it has within a recent period acquired, it must be up and doing—working out the great problems of sanitary science, and asserting its importance in the supervision and control of all State sanitary measures. We should have had a much larger meeting, and have enrolled some hundreds of members, could we have addressed our circular letter to all the certifying medical officers throughout Great Britain. The fact is, we have been able at present only to get at half, viz., those who are in Mr. Inspector Baker's district. The other inspector, Mr. Redgrave, declined to furnish a list of those holding office in his district, very suggestively referring me, as a medical man, to the *Medical Directory*, which contains no such list; for had it done so, I should never have exposed myself to his want of courtesy in refusing my written application. This statement is especially necessary; for objection might fairly be taken by our colleagues in the other districts to forming ourselves into an association without an invitation to them. We must, therefore, ask them to accept this explanation, and to notify to us, on seeing reports of this meeting, their readiness to unite with us in advancing our common interests, and in promoting the efficient operation of the Factory Acts. We would also request them to aid in making a complete list of their number.

Having no flattering remarks called for in the case of one factory inspector, I have the more scope and better opportunity to ask your recognition of the courtesy of the other in aiding us in this movement by most readily furnishing a list of the certifying surgeons within his district. But this represents but a small portion of your indebtedness to Mr. Baker, who is the indefatigable advocate of the importance of medical agency in the operation of the Factory Acts, and who fails not in his most valuable Reports to exhibit how largely medical knowledge and observation may be put into requisition. He is an able and most important advocate of our interests as factory medical officers with the Government, and we shall greatly strengthen his hands and promote our own influence, by diligently working out the programme contained in his circular letter which you all possess, and, in general, by uniting in this Association to carry forward, among other things, the indications for action I have so imperfectly sketched. What is to be accomplished in State Medicine is best pourtrayed in the very complete memorandum put forth by the Committee or Council of Sanitary Science appointed by the British Medical Association, and which has appeared in the pages of the several medical journals. I hope that when this Association is duly organised, it will be invited to co-operate with that Committee.

OBSTETRIC MEMORANDA.

HEAD AND HAND PRESENTATIONS.

By Maxwell T. Masters, M.D., Spring Grove.

The narration of Dr. Tenison's case of head and hand presentation induces me to send the following extracts from my register. The fact that two such cases should occur to the same practitioner within a month is a sufficiently remarkable coincidence.

"1863. March 8. Mrs. F., Atwell Street, Peckham. Primipara. Hand by side of head. Male child, living."

"1863. April 4. Mrs. ——, Rye Lane, Peckham. Third labour, full period. Rupture of membranes some hours before labour-pains fairly set in. On first examination, detected head and fingers in the brim of the pelvis. As there was plenty of space and ample power, labour advanced rapidly. I attempted in vain to push back the hand, but desisted on finding how favourably the case progressed. Child female, living. Fingers showed signs of pressure, which speedily disappeared. Placenta battledore-shaped."

REVIEWS AND NOTICES.

'HE DISEASES OF THE CHEST: being Contributions to their Clinical History, Pathology, and Treatment. By A. T. H. WATERS, M.D., F.R.C.P. London: Churchill. Liverpool: Holden. 1868.

)R. WATERS has earned a better right than most of his critics can ave to pronounce opinions *ex cathedrâ* on the pathology and therapeu- .cs of various forms of chest-disease, and especially of diseases of the ıng. He has investigated the normal and morbid anatomy of the ıng with zeal and success, and by the aid of the most modern means f research. We confess to a great love of honest research and real oundation-work in all the primary parts of his subject for a man who spires to be a healer; and there is excellent evidence in Dr. Waters's eatise that he is not of the number of those who affect to despise pre- ise investigations, of which they have not the industry and self-denial o master even the manipulative elements of success. He is a sound hysician; and his lectures on Pneumonia and Emphysema especially re replete with careful observation and just deductions, which will de- ght the most highly instructed, and unfold to the younger readers the ue method of sound diagnosis, the broad applications of which an en- ghtened pathology is capable, the limits which a wise interpretation f morbid processes imposes upon therapeutical interference, and the lines ı which they give direction to the art of cure. Some of the lectures ere published have already appeared in the JOURNAL; but they af- ırded to our readers only a taste of the various merits and extended ıterest of the volume. We heartily commend it to the study of the rofession. It proves Dr. Waters's claim to a very high position as a acher, a pathologist, and a successful practising physician.

RINCIPLES OF MEDICINE. By ARCHIBALD BILLING, M.D., F.R.S.
Fifth Edition. Longmans.

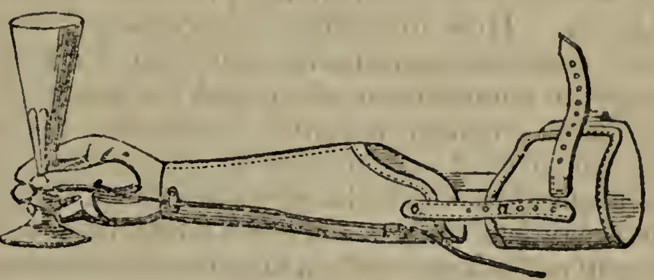
. WORK especially addressed to the reflecting and cause-searching ıembers of our profession, which has not only been republished in .merica, and translated into two foreign languages, but has necessitated *sixth* edition in its original tongue, must possess a value worthy of ıquiry into its substance.

The prominent impression left on the mind by the perusal of Dr. ILLING'S *First Principles of Medicine* is that of having read an emi- ently *suggestive* treatise—a practical inculcation of the valuable prin- iple, "Always have a reason for what you do in medicine, even ıough it be not in all instances demonstrably consequent and exact." 'he next consideration engendered by it is, What are the difficulties in oth the teaching and learning of medicine which require a book stand- ıg alone in medical literature? It is not exclusively pathological; it 'as not originally based on the more recent and recondite physiological :uths; but clinically it commends itself to the observant practitioner s an exposition of what has constantly occurred to his own mind in a ess definite shape; and he recognises a gap between what have been alled "systematic works" on medicine and the exigencies of his daily ractice, which Dr. Billing fills up for him.

All men who have endeavoured to cultivate medicine purely, as one f the highest and most intricate branches of knowledge to which the arnest and diligent mind can be prompted, will acknowledge that a ırge portion of it can never be written—*i. e.*, that the most gifted phy- .cian of one generation cannot transmit to his successors all his experi- nce in the recognition of and conflict with disease, because his assump- ons from the same observable data, if those data be presented to a ıcceeding generation with a larger interpretation attached to them, 'ill not impress the same conclusion. We must, then, infer that ıere is a peculiarity in this special study which constrains a special ıode of pursuit. If M. Auguste Comte had been required to assign to a place in his system of philosophy, he could not have classified it nder the division of "positivism" (although so much of it is positive), or under the division of metaphysics (much of it being what has, until ecently, been called metaphysical), but he must have found a resting- lace between the two. This *locus standi* is, we believe, supplied by ıe legitimate hypothesis congenial to a mind like Dr. Billing's. A ıind largely stored with both academic and strictly professional lore eems to have fretted under the "positive", the mere facts of medical cholarship and their simple syllogistic application; and to have been red with the impulse to burst those narrow trammels, and wander be- ond the boundary of strict deduction, from what must appear to us all in ractical life insecure premisses. "Ut rerum poterit cognoscere causas." .fter disposing of what Bacon calls the "positive and regular", this ook teaches us how to deal in a scholarly spirit with the *conjectural*, that large portion of medicine which has still to be reduced to the "positive and regular", steering equally between undisciplined imagination on one side and a slavish adherence to our present knowledge or the magistralities of antiquity on the other. If it were not a book of which the tone and aim have been rendered familiar to the profession by a knowledge of the earlier editions and the criticisms of former reviewers, we should have felt it necessary to scrutinise in detail what appear to us here and there somewhat hasty conclusions, and, although the present edition is so much enlarged, evidences of a defective appreciation of some of our more recent physiological learning; but, as a bedside guide—as an aid to the practitioner who is called upon to think beyond the *name* of a disease and the stereotyped remedy appropriate to its treatment—as a stimulus to, and safe guide in, the honest, reflective pursuit of yet unwritten medicine—we urgently commend it to the attention of our readers. The additional information on the *sounds of the heart*, reducing the theory of that hitherto complicated subject to a philosophical simplicity, and the newly written chapters on Mental Disease and Hysteria, deserve the careful attention of those interested in these seriously important questions.

NEW INVENTIONS, &c.,
IN
MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ARTIFICIAL HAND.



THIS engraving represents an artificial arm and hand, with a moveable thumb, which opens sufficiently wide to grasp a tumbler, and yet closes firmly enough to hold a pen or pencil for writing. The mechanism is of the simplest kind, being worked by a catgut and vulcanised rubber spring. A band is passed over the opposite shoulder, attached to the catgut; and, as the stump is pushed forward, the thumb is extended. To close it, it is only necessary to move the arm backwards. The price at which this artificial arm can be produced (about £3 3s) must ensure for it a great demand. It is the invention of M. Fichol of Paris; and Mr. Pratt, of 420, Oxford Street, is the agent in England.

DINNEFORD'S FLUID MAGNESIA.

ONE of the most convenient and pleasant forms of administering magnesia is the solution in carbonated water. Although it had been largely employed in this way for many years by the profession, it was not made officinal until 1867, when it was introduced into the *British Pharmacopœia*, under the name of Liquor Magnesiæ Carbonatis. Of the various preparations made by chemists, the best known is that of Dinneford and Co., of New Bond Street. We had lately an opportunity of closely inspecting their factory, and were much pleased with the care bestowed on its preparation. Pure carbonate of magnesia is agitated with distilled water in cylinders by means of steam power. A stream of carbonic acid, previously washed in pure water, is forced by means of a steam pump into the solution. A solution of magnesia is thus formed. After being thoroughly agitated, the fluid is collected in tall vessels, and allowed to stand for two or three days, to admit of the undissolved magnesia subsiding. It is then drawn off, and its purity and strength tested by a member of the firm, before being bottled. The firm have been at considerable expense in erecting suitable non-metallic cisterns and gasometers. They have, however, by this means obtained the well-known purity of their preparation. From the result of our own examination, we believe Messrs. Dinneford's fluid magnesia is what it pretends to be—of the strength and purity required by the *Pharmacopœia*. Used in doses of half an ounce to two ounces, with a teaspoonful of acidulated lemon syrup, it forms at once a pleasant and elegant way of administering this excellent antacid.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

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ELECTRO-THERAPEUTICS.

II.

Regarding the physiological effects of electricity, much that is perplexing, and not a little that is contradictory, has been written. The subject is an extremely difficult one for both the physiological experimentalist and theorist; and, although many distinguished men have worked at the subject, it must be confessed that we are yet far from having received a satisfactory explanation of many mysterious things connected with it; and, indeed, we are just beginning to see clearly that, notwithstanding the value and interest of experiments which show the effect of electrical currents upon the excised nerves and muscles of frogs, conclusions drawn from these must not be exclusively relied upon when electricity is employed in the treatment of disease.

Electricity is the most convenient and efficient stimulant that we know of for throwing nerve and muscle into action. The Faradic or induced current is much more powerful in this respect than Galvanism. Hence it is always employed to stimulate muscles and nerves, unless when it is necessary to pass the current through the central nervous system; in this case, the Galvanic current is employed, because most serious consequences have followed the passage of electricity of high tension through the brain and spinal cord. When a Galvanic (continuous, constant) current is passed through a motor nerve or a muscle, contraction takes place, either when the electrical circuit is closed or when it is opened. Generally, if the current be of perfectly constant strength, the muscle remains at rest during its passage. It is generally found that, if a weak current be sent up or down a motor nerve (the positive pole placed near the muscle in the first case, the negative pole near it in the latter), the muscle contracts only when the current is closed. When the current is of medium strength, contraction takes place both at closure and opening, whether it be sent up or down the nerve; and, when a strong current is employed, contraction only on opening the current ensues when the current is ascending, and contraction only at closure when it is descending. This is Pflüger's "law of contraction." This term, however, is calculated to mislead, for when the current is passed along a *sensory* instead of a motor nerve, pain is felt only at closure of weak currents, at closure and opening of those of medium strength, and so on. It would, therefore, be more correct to designate it the *law of Galvanic stimulation of nerves.* According to Pflüger and Von Bezold, the negative pole only irritates when the current is closed, the positive pole when it is opened; and this circumstance, taken in connection with the fact, that in a weak current the negative pole and in a strong current the positive pole affects the nerve to the greatest extent—and also the relative position of the poles as regards a muscle in the case of motor, and as regards the cerebrum in the case of sensory nerves—affords the explanation of Pflüger's law; but to show how it does so would lead us into a tedious and unnecessary digression. Generally speaking, the law of contraction, so called, holds good for human muscles and nerves. It has been found, however, that frequently pain is produced at both the positive and the negative pole on closing a Galvanic current, so that the truth of the statement made by Pflüger and Von Bezold must be held as not proven. It is important to remember that when currents of moderate strength are employed in the healthy human subject, we have contractions only at its closure, whatever the direction of the current: contractions at opening indicate an increase of excitability of the nerves or muscles.

When the negative pole is placed near the nerve-centre and the positive pole over a muscle, a feebler current produces contraction than is required if the negative pole be moved nearer the muscle. The explanation of this has been furnished by Pflüger. It is this. An influence as it passes along a nerve gathers in strength just as an avalanche does when it rushes down a precipice. Therefore, if we operate on a long tract of nerve, we can produce the same result with a weaker stimulant than is necessary if the extent of nerve be smaller.

Although a Galvanic current, when passed through a muscle or nerve, usually stimulates the tissue to action only when it is formed or broken, a peculiar condition termed the electrotonic state is induced all the while the current is passing. Regarding the electrotonic state of a muscle, we know but little with certainty; so we will speak only of the condition as manifested by nerves. In the electrotonic state of a nerve, we find that its *excitability*—that is, its capability of receiving impressions; its *conductivity*—viz., its power to convey the influences of impressions; and its *electromotive power*—in other words, its power of generating electricity—undergo an alteration. At and for some distance on either side of the positive pole, the excitability is diminished; while, at and near the negative pole, it is increased. According to Von Bezold, the conductivity is diminished at both poles; but Rutherford has shown (*Journal of Anatomy and Physiology*, 1868, p. 95) that Von Bezold drew his conclusions from nerves paralysed by currents of too great strength; and that, if a Galvanic current of moderate strength be used, the conductivity, like the excitability, is diminished at the positive and increased at the negative pole. Further, the electromotive power is diminished at the negative and increased at the positive pole. In short, the positive pole lowers the excitability and conductivity while it increases the electromotive power of a nerve, while exactly the opposite effect is produced by the negative pole. A most important fact shown by Pflüger is that, in a weak current, the negative and in a strong current the positive pole affects the longest tract of the nerve. This furnishes the explanation of the fact pointed out by Remak and Heidenhain, that a weak Galvanic current restores irritability to exhausted muscles and nerves; and of the fact discovered by Matteucci, that when a strong Galvanic current is passed for some time through the spinal cord of a frog poisoned with strychnia, the convulsions cease as long as the current is passing; a current of too great strength, however, not only lowers the excitability, but soon kills the nerves, probably by its catalytic action. On the healthy human subject, however, it is found very difficult to lower the excitability of a nerve by a current which does not give rise to more pain at its opening and closure than can be borne.

In certain diseased conditions, the excitability of the nerves may, under the influence of electricity, often be very speedily increased or diminished. More frequently, however, a repeated transmission of the current is needed, in order that the alteration it produces may become permanent. It is of great importance to remember that the polar changes which constitute the electrotonic state are most marked *at* the poles; that is, at the wires or other electrodes which conduct the current through the nerve or muscle.

What, then, are the indications which these physiological considerations furnish for the treatment of diseased conditions of the nervous system? We would say, bring the positive pole of a continuous current to bear on those portions of the nervous system whose excitability is increased, or which are actually in an excited state, and subject to the influence of the negative pole those parts whose excitability is lowered; and, inasmuch as the positive prevails more than the negative pole in a strong current, and the negative more than the positive pole in a weak current, the indication which this seems to give is, that symptoms of excitement would be best subdued by a strong, and paralytic symptoms by a weak current. In the latter case, however, the indication is not only to exert a modifying influence, so as to improve the excitability of the paralysed part, but also to produce action. To do this we must repeatedly close and open currents of considerable strength. Benedikt, however, (*Electrotherapie*, 1868, p. 82), recommends *weak* Galvanic currents to allay the excited state of the nervous system in convulsions and neuralgia. In endeavouring to find an explanation for this discrepancy between the theory of the physiologist and the result obtained by the therapeutician, Benedikt reminds us of the fact that a weak current may have the same effect upon a weak though excited nerve, as a much stronger current would have upon a healthy nerve. But then it may be asked, How do you explain that stimulation of sensory nerves by means of Faradisation is often found to cure hyperæsthesia? We confess it—we do not know; and this, together with many other circumstances, leads us to conclude that we look to the facts which will ere long, we hope, be accumulated by the electrotherapeuticians for correct principles on which to apply electricity for the cure of disease. Experiments on healthy tissues have taught us a good deal, but, after all, not so very much, as one might at first sight be inclined to suppose.

In our next, we shall allude to the influence of electricity on the sympathetic, and then speak of the therapeutical employment of electricity.

THE PRIVY COUNCIL REPORT ON HEALTH.

THE tenth Annual Report of the Medical Department of the Privy Council, which has just left the printer's hands, is, as usual, full of interest. It is mainly devoted to the consideration of some important questions with regard to phthisis, and to important miscellaneous subjects.

Writing as to the supervision of vaccination, Mr. Simon says that, during the year, 1651 vaccination districts, comprised in 556 different unions, were visited by the inspectors of the department; and he gives some results of the working of the new system of awards to public vaccinators, a system of which, for the first time, he has been enabled to speak as having been in operation for a whole year. Mr. Simon says: "On this system my lords distributed £1,824 among various vaccinators of England. The number of vaccinators to whom gratuities were given was 231; namely, 61 who received first-class, and 170 who received second-class, gratuities. The gratuities of each class differed, of course, very considerably in money-value in different vaccination districts, just as the several contract-earnings differed. Where a public vaccinator was having so few vaccinations as to be only earning from his board of guardians some twenty or thirty shillings a year, the supplementary payment by the Privy Council was necessarily quite insignificant as money, and, except that it implied an honourable recognition of services, might not have seemed worth the trouble of formal transmission and acknowledgment; but, on the other hand, in many cases the payments were such as probably to be in themselves welcome additions to the often scanty stipends of the recipients. The largest aggregate payment of the year (a second-class gratuity on 2,021 vaccinations) was £67 : 7 : 4; the smallest (a second-class gratuity on 23 vaccinations) was only 15s. 4d. It may be observed that, if these had been first-class gratuities, as I hope they may be in future inspections, the respective amounts would have been £101 : 1 and £1 : 3."

The work of upwards of 1,600 public vaccinators came under inspection during the year, but 231 only (or less than 8 per cent. of the whole) were found to have done their work in such a manner as to entitle them to receive grants. Looking forward to the extirpation of small-pox, we hope to see in a future report that every public vaccinator whose work has been inspected has received a gratuity of the highest class.

The occasional inquiries include the inspection of the causes of outbreaks of fever in Winterton, Terling, and Guildford. In the two former cases bad sanitary conditions (defective drainage and polluted natural water-supply) and in the latter the supply of infected water by the Local Board itself, were held to be the causes of the outbreak. Though these cases have already formed the subject of notice in our columns, we think that we may again call attention to them, and to the following remarks which Mr. Simon has made upon them:—"All three cases were, in substance, such as I have again and again reported on, as illustrations of excremental poisoning; and this filthiest chapter in the history of our pestilences is one which I would gladly consider myself exonerated from re-opening on the present occasion."

Here is the old story over again. Typhoid fever, a preventable disease, in the case of Terling, Mr. Simon says, killed in the space of two months "a larger proportion of the population than all causes of death put together ought to have killed there in two years." This is the state in which we now are, notwithstanding the existence for years of statutes passed avowedly for the object of dealing with such conditions as have been here described; and we fear that, until some other than the present *quasi* liability attaches to negligent local authorities, there will be but a poor chance of insuring a due performance by such authorities of the duties imposed upon them. Mr. Simon, in his Report, suggests a method of dealing with such local authorities as may by their negligence be looked upon as responsible for outbreaks of disease and for the misery and expense which always are the results. He goes thoroughly into the question which he raises, viz., the liability of the rates to be charged with the neglect of the rate-making body. "If," says Mr. Simon, "each person who had suffered as above could recover his compensation from the rates, local authorities would immediately have the knowledge conveyed to them, in a far more practical form than it has yet assumed in their eyes, that sanitary neglect is a mistaken parsimony." This question which Mr. Simon has mooted is one of immense interest to all.

He further suggests that "for any purveyor of water wilfully or neglectfully to distribute foul water, or, where filtering is required, unfiltered water, and for any local authority to make default in such duties in relation to the public health as are by statute expressly imposed on it, should be (if they be not already) indictable offences, and that the production of disease by offences as aforesaid should be also (if it be not already) indictable; secondly, that it should be the province of some named central authority to take at its discretion legal proceedings against offenders as above; and, thirdly, that where such proceedings had led to conviction, all propositions affirmed in the verdict as to the causing of disease by the convicted person or authority at the time and place in question should afterwards be held proven for the purposes of whatever civil actions for damages might then be brought by private persons on account of injury sustained through the disease." This might properly be considered by the Royal Commission on Sanitary Legislation, which is about to issue.

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THE Association of St. Andrew's Medical Graduates has issued its first annual volume of *Transactions*, in a very artistic-looking book. It includes the papers read at the last annual meeting, and a full account of the proceedings of the Association in respect to the franchise granted by the Scotch Reform Bill, which was on more than one occasion seriously menaced, and by them warmly and successfully defended.

INSPECTOR-GENERAL Sir Edward Hilditch, R.A., has been appointed Honorary Physician to the Queen, in the vacancy occasioned by the death of Sir John Liddell. Sir Edward is the senior in the list of inspectors. He received his promotion to that rank in 1854, for services rendered during the great yellow fever epidemic at Bermuda. He served last in charge of Greenwich Hospital, till the reduction of that establishment in 1865, when, on retiring from office, he received the honour of knighthood.

THE COLLEGE OF SURGEONS.

WE understand that Mr. Luke will, at the close of the present examinations, resign his seat at the Examining Board. Mr. Busk will, no doubt, be elected to fill his place.

DR. RAMSBOTHAM.

THE death of Dr. Ramsbotham, the author of a standard work on Midwifery, and formerly Professor of Midwifery at the London Hospital, is announced. The large practice and high repute of Dr. Ramsbotham have made his name a household practice for many years in this country. Under the pressure of delicate health and family troubles, he had of late years retired from practice, and died at Perth.

A ROYAL COMMISSION ON THE SANITARY LAWS.

THE intimation which we gave last week of the intention of the Government to appoint a Royal Commission to inquire into the operation and deficiencies of the sanitary laws as urged by a deputation of the British Medical and Social Science Associations is confirmed, and the Commission will, we are informed, issue very shortly. Its composition is now being arranged.

THE SCOTCH REFORM BILL.

THE regulations for the registration of the Doctors of Medicine of the Scotch Universities have received, in the House of Lords, one material alteration. The fee for registration is now one pound, instead of thirty shillings.

RICHMOND BARRACKS AND CEMETERY, DUBLIN.

THE proceedings of the War Office for the purpose of closing the Golden Bridge Cemetery, on the grounds of injury to the adjacent barracks, have been postponed to October 19th. A great number of counsel, and of scientific and medical witnesses, were ranged on either side.

THE POOR RELIEF BILL.

CONSIDERABLE dissatisfaction has been felt by those who wish to see the country workhouses put upon a footing as satisfactory as that which Mr. Hardy's Bill achieved for the metropolitan, at finding that many of the most valuable clauses, which had been approved in Committee of the House of Lords, have been struck out in the passage of the Bill through that House. We may state, however, that these clauses were omitted only because they were found to involve, directly or indirectly, money questions. They will, therefore, be re-inserted in the Commons, on the motion of the Secretary of the Poor-law Board; and the Bill, which is, at it stands, completely emasculated, will be restored to its pristine usefulness. The influence of the Political Committee of the Workhouse Infirmaries Association will be used to support and strengthen these clauses, and to afford the Government an independent assistance in carrying through the Bill, with certain modifications, including the power to direct the supply of drugs, as well as of medical appliances, in infirmaries.

ELECTION TO THE SHERARDIAN PROFESSORSHIP OF BOTANY, OXFORD.

WE understand that the Council of the College of Physicians, who are the electors to the post, have just appointed Mr. Marmaduke Lawson to the post of Sherardian Professor of Botany in the University of Oxford. Mr. Lawson has been for some time an active assistant to Dr. Hooper at the Kew Museum; and has also lectured on Botany at the medical schools of St. George's and (at the present time) at St. Mary's Hospitals. He was also selected as botanist to accompany the Palestine exploring expedition, but the engagement terminated from failure of funds. There were three other candidates: one high wrangler from the same university as Mr. Lawson, Cambridge, and two, also highly recommended, from Oxford. So that, after all said on the subject, it does not appear as if the study of Botany were likely to decline in the University of Oxford for lack of competent professors.

TYPHUS AT MERTHYR: OPERATION OF THE SANITARY LAWS.

IN his last report as medical officer, Mr. Dyke reported to the Merthyr Board of Guardians that "typhus fever destroyed sixteen lives—fourteen in Upper Merthyr, and two in Lower Merthyr. This fever has been present in Dowlais since the autumn of last year. Your officers have been kept well informed of the affected localities; they have endeavoured to remove the causes of sickness, and thus diminish the spread of the disease. The machinery of the law, by which the powers of this Board are brought to bear upon places in which contagious diseases prevail, is so slow in action that, while the legal process is being carried out, fevers get so fast a grip upon the inhabitants as to make fail for a time the best directed and most earnest efforts of your officers." In the course of the conversation which followed, the Chairman asked if what Mr. Dyke said about the slowness of the machinery of the law applied to the action of the Board. Mr. Dyke said it did not. It was the action of the civil courts he meant. He explained the circumlocutory manner in which they had to act in stopping a nuisance. The Surveyor said it was hardly possible to stop a nuisance by law in less than a month. Mr. Dyke said that the BRITISH MEDICAL JOURNAL had recently commented upon this matter, and showed that the slow action which the Boards of Health were obliged to take in epidemic diseases was very injurious, inasmuch as the disease spread owing to the delay. He was often told by medical officers in Dowlais that the officers of the Board were very slow in their preventive and curative remedies. That was what he meant in his report. The Chairman undertook to give his special assistance in all that related to the house property of the Dowlais Company.

THE BRITISH MUSEUM.

WE learn with regret that the Government have felt compelled by the state of the public business to relinquish the intention of moving for the grant necessary to carry out the project of removing the Natural History Collections of the British Museum to the site purchased at South Kensington by money voted by the House for the purpose, under the influence of Lord Palmerston. The plans, even to the minutest detail, had been drawn and prepared, under the general direction of Professor Owen, so far as the objects were concerned, by Mr. Waterhouse; and the estimates are prepared, but Mr. Disraeli will be unable to find a day for the purpose. This is the more to be regretted, because not only does the necessity become annually greater for finding adequate space for the hidden and overflowing treasures of this collection, of which a great part is now inaccessible to the public, and but little utilised, but because also there is a rapidly increasing demand for science-teachers in upper schools and colleges, while there are but few facilities for educating them; and in its new home, with suitable theatres and study-rooms, it is hoped that the Museum may become an invaluable educational institute of the natural sciences, and serve a great purpose in the national instruction. The annual postponement of this subject for several years now is very discouraging to men of science, and very injurious to the interests of education in a department of it which we all feel to be now sadly neglected in this country.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE meeting of this body is announced for the 4th of next month, at the College of Physicians. That is the day fixed for the General Session of the British Medical Association at Oxford. There are obvious inconveniences in this arrangement. It might be to the advantage of the Medico-Psychological Association and the convenience of its members, that a postponement to the following week should be decided on.

THE MIDDLESEX HOSPITAL HOME FOR NURSING.

AMONG the many extensive improvements which have been and are still being carried out at this fine old institution, none will rank in importance with the Home for the Training of Female Nurses. The erection of a building for this purpose has been contemplated for some time; and, at a general special meeting held at the hospital on Thursday, Captain the Hon. Francis Maude, R.N., in the chair, it was resolved to make a special appeal to the governors and the public to raise sufficient funds to enable the managers to carry out this most important object. It was proposed to make an effort to collect £6,000, the sum required to meet the expenses of a suitable building. And as the sum of £2500 of the amount had been already raised, including a munificent gift of £1000 from the Marquis of Westminster, it was expected that the remainder would soon be forthcoming. The plans, as prepared by Mr. T. H. Wyatt, supply cubical dormitories for the accommodation of sixty-six nurses, each nurse to be provided with a separate room leading off from the general body of the dormitory. There will be four compartments, on a larger scale, for sick nurses; and refectory bath-rooms, kitchen, laundry, and every convenience necessary to make a model building, will be added. The necessity for such an institution as this has long been felt; and, now that one of our large metropolitan hospitals has taken the initiative, we doubt not that, should the necessary funds be forthcoming (which we do not fear they will be), and the undertaking prove a success, the other hospitals will soon follow the example, and apply some of the vast experience to be gained in them for the purpose of sending forth a much needed class of well-trained nurses, capable of doing an invaluable amount of good, not only to the metropolis, but to the whole country. The establishment of such an institution, forming a new era in our system of hospital-nursing, reflects the highest praise on Mr. Ross, chairman, and the other members of the Weekly Board, and the medical staff; the energy of Miss Martyr, the lady superintendent of nursing, and Mr. Custance, the secretary, have done much in bringing the hospital into its present admirable working order.

SUMMER PRECAUTIONS.

VERY useful hints may be gathered, for town and country, from the following report of the measures of disinfection which Dr. Whitmore, Medical Officer for Marylebone, informs us he is, by the ready sanction of the vestry, enabled at present to carry out in that extensive parish, where diarrhœa has become extensively prevalent. The disinfectants which he uses are carbolic acid, carbolate of lime, chloride of lime, and Condy's fluid. A list of all the narrow, dirty, and most crowded streets, courts, alleys, and other confined places in the parish, has been made out; these are watered on alternate days with a solution of carbolic acid, in the proportion of one pint of the strong acid to an ordinary sized water-cart filled with water. This is sufficiently strong to destroy all offensive smells, and at the same time produce an odour decidedly refreshing and pleasant, and which the inhabitants like very much. A stronger solution is used by the inspectors for water-closets and drains which are found to be unusually offensive. The carbolate of lime is used for the disinfection of street-gulleys and the numerous air-shafts required for the ventilation of sewers, through which, in the present high temperature, most noxious gases are emitted. The chloride of lime he uses for the disinfection of rooms in which there has been death or sickness from small-pox, fever, scarlatina, or other infectious diseases. The method employed is to place some of the powder in saucers distributed on shelves and other parts of the room, to which is added some dilute sulphuric acid, by means of which chlorine gas is more readily evolved, and the whole atmosphere thoroughly disinfected. Condy's fluid is made available for the disinfecting of chamber-utensils, for sprinkling over crowded and ill-ventilated rooms, and for other purposes in which chlorine gas would be inadmissible. Dr. Whitmore has great additional satisfaction in being able to report to us that a building for the purpose of conducting *post mortem* examinations in is on the point of completion; it is situated in the parochial stone-yard, Richmond Street, St. John's Wood; and in a very short time it will be fitted with all necessary appliances for that purpose, with the exception of surgical instruments, which each medical man will be required to find for himself. The building is of iron, lined inside with varnished match-boards; it is very commodious in size, and exceedingly well lighted and ventilated. There is also an ample water-supply. The erection of the mortuary house, so long needed, will forthwith be commenced. The building, designed by the chief surveyor of the parish, Mr. Browning, is in the Egyptian style, and in all its features resembles that of a fitting mausoleum for the dead. It will be capable of holding eighteen or twenty coffins at one time, which will be placed on iron supports on each side of the building. The cost is not to exceed £300. The site selected—a most appropriate one—is the centre of the old parochial burial-ground in Paddington Street, for which purpose the required faculty from the bishop of the diocese has been obtained.

A REFORM IN NURSING.

WE would earnestly call the attention of the managers and committees, as well as of the medical officers, of asylums throughout the country, to a most useful movement initiated by Dr. Maudsley and Dr. Crichton Browne for substituting female for male nurses in many lunatic wards throughout the country. It is a remarkable fact, that the mortality of male lunatics in asylums is nearly one-third greater than that of female lunatics. How far may this be due to the coarse, imperfect, and clumsy nursing which always characterises male, as compared with female attendants? Deaths are most numerous at the hours when nursing is at its point of greatest relaxation. Dr. Crichton Browne has found the presence of a female nurse, the wife of an attendant, in a large male ward of seventy epileptic and suicidal patients, awaken in them self-control, and suppress the outbursts of violence, abusive language, and offensive habits, to which they were wont to give way. Their whole nature, he says, seems to have been softened, and their tone of feeling ameliorated, by the simple expedient of introducing a kind-hearted female amongst them. Is this not an experiment worth more extended trial? If it succeeded, we should perhaps hear less often of broken ribs at inquests in lunatic asylums and trials at the assizes.

JUNIUS BRUTUS BOOTH.

DR. A. O. KELLOGG furnishes to the *American Journal of Insanity* a psychological study of Booth, describing him as afflicted with months of positive insanity during his whole career. It has a political, as well as medical interest. As an actor, he was a man of genius, but of extraordinary excitability. In enacting Richard, most of his fellow-actors feared to face him in the death-struggle; and he had to be reminded that it was for him to suffer himself to be slain. Dr. Kellogg relates the following anecdote.

"Riding with him once, near St. Louis, two Catholic priests crossed the road in front of them. To the utter astonishment of his companion (for Mr. Booth was perfectly sober, and had up to the moment been quite calm and natural), he put spurs to his horse and galloped towards them, exclaiming, '*Gomez* and *Pescara!* ride them down! down with them! down with them!' and it was as much as his companion could do to prevent him from riding over them. The two characters, Gomez and Pescara, as is well known, are two chiefs of the Inquisition in a tragedy of Shiel, called *The Apostate.* Booth was doubtless that day 'one of the faithful'; and, his blood being up at the sight of the supposed inquisitors, his mind for the moment was caused to wander."

He saved himself from absolute mania by his extreme love for domestic retirement and agricultural pursuits. He would allow no animal to be killed about his farm. He indulged in no animal food himself, nor would he suffer it to be used in his family. "Once, when living on his farm in Harford county, he sent for all his neighbours and friends, far and near, to come to his place and attend a funeral. When they arrived, they found, to their great disgust, that it was the carcase of a favourite horse that he wished to have buried with all due solemnity. The crowd retired, some in disgust, others laughing at the strange performance. His family, however, understood the meaning of the thing. A physician was sent for, and the 'chief mourner' passed through a long and unusually serious attack of disease. One night, when he was to act, he did not appear, nor could he be found at his lodgings. He did not come home that night. Next morning he was found in the woods, several miles from the city, wandering in the snow. He was taken care of; his derangement proved to be temporary, and his reason returned in a few days."

ENLARGEMENT OF GUY'S HOSPITAL.

A CONSIDERABLE addition is about to be made to this important hospital which will afford increased accommodation for 160 patients. The new building will be a continuation of the large and handsome wing lately opened. The block containing the present eye department and assistant surgeons' wards will be demolished and accommodation provided for them in the new wing. It will consist of four floors of forty beds each. There will be one ward on each floor with the exception of the ground floor, which will contain a male and female ophthalmic ward and operating theatre. There will be a space also set apart for a museum of comparative anatomy on the ground floor. The wards will be in most respects similar to those lately built, the central wall, however, is to be done away with. The probable cost is £30,000, to be taken from the general funds of the hospital.

THE MEDICAL ARRANGEMENTS AT THE EDINBURGH REVIEW.

THE excellent medical arrangements at the review lately held at Edinburgh, compare most favourably with the shamefully inadequate preparations made by the War-Office for the meeting at Windsor, where upwards of three times the number of volunteers were present. The preparations were admirable, and reflect all praise upon Dr. Fraser, Inspector-General of Hospitals for Scotland, who gave every assistance in his power to make the arrangements as complete as possible. A hospital-tent belonging to the Edinburgh Rifles was on the ground, in which all surgeons, regulars and volunteers, met; the assistant-surgeons alone going into action. There were six stretchers, mounted orderlies, and every surgical convenience, at the disposal of the medical officers. The senior surgeon on the ground, Dr. Maclagan of Edinburgh, was in charge of the volunteer regiments. Each volunteer surgeon sent splints, or what other instruments he thought necessary, to the tent; and each assistant-surgeon carried a bandage, his case of instruments, and a bottle of brandy, as recommended by Dr. Fraser. Water-carts were supplied by the town, which were stationed, one at the hospital-tent, and the others in different parts of the field, and proved of great service. There were refreshments for exhausted or disabled volunteers; and every matter connected with the arrangements was carried out in a truly volunteer spirit, and reflected great credit on those in authority, and on every medical officer on the field. Would that the War-Office here laid aside some of its inertia, and did something; or, if unable to acknowledge it, allow the volunteer medical officers to undertake preparations for themselves.

THE MEDICAL AND CHIRURGICAL AND CLINICAL SOCIETIES.

A COMMUNICATION has been made from the Council of the Royal Medical and Chirurgical Society to that of the Clinical Society, on the delicate subject of rent. For a short time, the Royal Medical and Chirurgical Society lent its rooms to the Clinical while it was forming; and subsequently the Clinical Society offered to pay the rent of thirty guineas a session, or at the rate of about two guineas a meeting, which was that at first paid by the Obstetrical and Pathological Societies. The rent of these societies was, however, raised to four guineas per meeting some time since; and the Council of the Royal Medical and Chirurgical Society have intimated that they cannot accept a lower rent from the Clinical Society than from the sister societies. The Royal Medical and Chirurgical Society has the undoubted right of fixing the rent at which it will lease the use of its rooms; and the plea that the same price must be affixed in the case of any one society as of another is plausible. On the other hand, it is felt that, as the Royal Medical and Chirurgical Society is actually living rent free now by the accommodation which it affords to other societies and the price which it exacts, and as the Clinical Society is still a young and not at all a rich society, the exaction of four guineas a night for the use of the room, is an unreasonably and ungraciously heavy impost. At any rate, it seems clear that rooms quite as good can be obtained for the purpose for half the money, and the Clinical Society will certainly not feel justified in acceding to the rent demanded. Other accommodation will, therefore, be sought. Just at this moment, and under all the circumstances, it is, we think, likely to be the general opinion that the Council of the Royal Medical and Chirurgical Society have not shown very good taste or much wisdom in pressing the money question. The Clinical Society has nothing to lose by changing its place of meeting; and the price asked is absurdly high for the accommodation furnished.

THE FUND FOR PHYSIOLOGICAL AND THERAPEUTICAL EXPERIMENT.

IT will be remembered that a special subscription was opened on the spot during the meeting last year at Dublin, towards an experimental fund for carrying out physiological and therapeutical inquiries, such as Dr. Hughes Bennett is now engaged in for the Association. The list of the subscriptions which have been offered is not a very full one. It will be found in our advertising columns; and we are the more desirous of directing attention to this subject since the recent decision of the Medical Council that it can do nothing to advance these objects, and specifically handing them over to the care of our British Medical Association. Seventy-five pounds have been voted for the purposes of the investigation to Dr. Bennett from the funds of the Association, but the inquiry is of a very costly, laborious, and protracted character.

MEDICAL CANDIDATES FOR PARLIAMENT.

WE learn with great pleasure that, at a meeting of the Conservative party at Bolton, it was resolved that Dr. Chadwick of Southport, formerly of Bolton, who recently gave a munificent donation to the borough, would be the most fitting candidate for its representation in Parliament; and that a deputation, having waited on him, reported to another large meeting of the party his consent to stand provided that a satisfactory arrangement could be made with Mr. Temple, whose intention to contest the borough had been previously reported. A resolution in favour of the candidature of Dr. Chadwick was carried unanimously. A deputation was appointed to wait upon Mr. Temple and explain to him the position of affairs, and the meeting was adjourned.

DR. WALSHE.

WE have reason to believe that Dr. Walshe, the distinguished Emeritus Professor of Medicine at University College, is quite disposed to offer himself for a Parliamentary career, if any fitting opportunity should occur in a borough where a Liberal candidate is likely to be acceptable. A more highly eligible candidate for a Parliamentary position could not be found within the ranks of our profession. With great culture of mind and independence of judgment, Dr. Walshe unites a remarkable power of expression and philosophic grasp of thought. Those who remember his admirable and powerful oration at the London meeting of our Association, will feel that it showed a singular capacity for influencing any cultivated assembly of educated gentlemen by arguments drawn from the stores of a richly furnished and philosophic mind, enforced with polished, lucid, and calm eloquence, which would certainly do credit to our profession in St. Stephen's. Dr. Walshe is a firm Liberal, and a supporter of Mr. Gladstone. We hope that this intimation may induce some of our friends in the provinces to place themselves in communication with him on the subject of any promising vacancy in Parliamentary representation in their vicinity.

ASSOCIATION OF CERTIFYING MEDICAL OFFICERS OF GREAT BRITAIN AND IRELAND.

THE several extensions of the Factory Act have called into requisition the services of a large number of medical men—we believe, about eight hundred—to certify to the age and physical ability of children and young persons employed in manufactories, and to report upon accidents occurring amongst them in the pursuit of their labours. This fact of the existence of so many medical men having a like function in carrying out the sanitary and preventive provisions of the several Factory Acts, and having likewise common interests with reference to the state and the public, and also a common field for observation and study in noting the effects of various kinds of labour on the physical, moral, and material wellbeing of the operative classes, suggested the propriety of these medical men meeting together in an Association for their mutual advantage, and the promotion of those branches of social science with which especially they are brought into contact.

With a view of forming such an Association, a preliminary meeting was called in Birmingham, and was held on the 19th of June last, at the Great Western Hotel. The meeting was eminently successful, and was attended by some fifty certifying medical officers, who had travelled to it from various parts of the kingdom, even from Wales and Ireland. Doubtless a still larger number would have been present, had the courteous example shown by Mr. Inspector Baker, in furnishing a list of the medical officers in his division of the United Kingdom, been followed by his colleague in the Factory Office. As it was, the absence of such a list for one-half of the kingdom was an obstacle to the issuing of the invitations to attend the preliminary meeting to those gentlemen engaged in that portion of the country; but it is hoped that, in the interval before the next meeting, those factory medical officers in Mr. Redgrave's division will forward their names, and also those of their colleagues whom they know, to the Secretary, so that in future the Association may attain the position it aims at, as inclusive of all such medical men in Great Britain and Ireland.

Dr. ARLIDGE, of Newcastle, Staffordshire, was chosen Chairman of the meeting, and opened the proceedings by delivering an address setting forth the purposes of the proposed Association. [The address is printed at page 57.] A code of general rules for the government of the Association was next adopted; and the following officers were elected:—*President:* J. T. Arlidge, M.D., M.B.Lond., Physician to the North Staffordshire Infirmary. *Vice-Presidents:* W. F. Wade, M.B., B.A.T.C.D., Physician to the General Hospital, Birmingham; C. D. Purdon, A.M.&M.B.T.C.D., Belfast. *Treasurer:* E. Waters, L.R.C.P.Ed., Coventry. *Secretary:* G. M. Stansfeld, Esq., Redland, Bristol. *Other Members of Committee:* T. B. Garstang, Esq., Bolton-le-Moors; T. B. Bott, M.D., Bury, Lancashire: T. J. Dyke, Esq., Merthyr Tydvil; W. Roden, M.D., Kidderminster; R. C. Brown, M.B., Preston; P. Downs, M.D., Stockport; E. T. Dehane, Esq., Wolverhampton; H. Terry, jun., Esq., Northampton.

It was also resolved that the place of the meeting each year be fixed at the preceding annual general meeting; and that three members of the Committee form a quorum; and, further, that a report of the proceedings at the annual general meeting be printed in whole or in part, according to the discretion of the Committee, and circulated.

After the meeting, an excellent dinner was attended by almost all the members present at the meeting. Mr. Inspector Baker and Dr. Rumsey of Cheltenham were also present. A letter was also received from Dr. Headlam Greenhow, regretting his inability to attend. Mr. Stansfeld, the Secretary, reported that, with exceedingly few exceptions, all those who had replied to the circular letter of invitation had agreed to join the Association; and that favourable replies were daily coming in.

REPORT
ON
THE METROPOLITAN HOSPITALS.

THE ROYAL FREE HOSPITAL (*concluded*).

FROM a description of the arrangements for the in- and out-patients of the Royal Free Hospital, we pass, by way of conclusion, to a review of its stated expenditure and financial administration. The materials for the review are found in the published reports of the hospital, and the statement of receipts and expenditure annexed to them. The information thus afforded would, however, be very incomplete for the purpose if we were not able to supplement it by information afforded in an unpublished Report of a Subcommittee of Investigation, nominated at the quarterly meeting of the General Committee of the Royal Free Hospital, held on the 9th of April, 1868, "to take into consideration the financial position and general condition and prospects of the hospital, and to advise whether any steps can be taken towards the attainment of increased utility and reduction of expenses." This report has been kept very closely, bnt a copy has been furnished from an official source, although officially it was refused.

In analysing this report we shall deal naturally with the most obvious item of expenditure first. This is the expenditure on salaries. It shows that at present the paid staff of the hospital, as far as regards principal officers, and exclusive of nurses, domestic servants, and porters, is as follows.

Secretary, at a salary of	297	14	0
Assistant-Secretary (son-in-law of the Secretary)	156	0	0
Messenger (son of the Collector)	54	12	0
Collector	109	4	0
Superintendent of Hospital (seat and vote at the General and Weekly Committee)	150	0	0
House-Surgeon	109	4	0
Chaplain (Chairman of Weekly Committee)*	100	0	0
Matron and Steward (mother and son)	130	0	0
Dispenser and Assistant	226	4	0
Total	£1332	18	0

Excluding the collector, who is not, we think, properly considered as a "salaried officer", the total may be stated at £1223 : 14. In this list, the salary of the Second Assistant in the Dispensary is omitted. This is more than one-seventh of the total income for the same year, which was £8404 : 0 : 4. The salaries under the same head at University College Hospital amount to £667 : 4, with 130 beds in ordinary use, and with 31,841 out-patients and 797 lying-in patients; at Charing Cross, with 120 beds, the salaries of officers are stated at £406 : 18 : 10; at Westminster, with 191 beds, salaries of officers, £678 : 2 : 6—collectively only £530 more than the Royal Free. The total number of beds in these three hospitals appears to be more than five times the number at the Royal Free Hospital; the number of registered out-patients about 80,000, against 66,494 estimated by scratches at the Royal Free Hospital.

It is not surprising, therefore, that this Subcommittee arrive at the conclusion that the Weekly Board might have arranged the administration of the hospital on a system which presented a smaller number of highly salaried officers, without in any way impairing its efficiency. They expressly adopt the principle, that the primary object of any arrangements which may seem desirable shall be the efficiency of the hospital—with which all will agree. They recommend, then, as consistent with this efficiency, the following reduction in the administrative paid staff.

Secretary	200	0	0
Ditto, poundage, say	72	0	0
Chaplain	50	0	0
House-Surgeon	109	4	0
Dispenser and Assistant	226	4	0
Matron and Steward	130	0	0
Total	£787	8	0

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* This gentleman's salary is mentioned in other reports as £105, under "Clerical Duty."

This would effect a saving of £545 : 10 a year. They are of opinion, in fact, that the Secretary may properly be paid less, and that he may dispense altogether with the services of any Assistant-Secretary and Messenger. The poundage on the subscriptions collected for the year at 5 per cent., which would enable the Secretary to keep an account, would amount to £72; the hospital had paid £109. It must be observed that the calculation does not include any estimate for board for the officers enumerated, who are, some of them wholly and some partly, provided with board at the hospital's expense. We would also call attention to items entered in the published account as "Secretary's office", £292 : 9 : 3 ; stationery and printing being also entered as £107 : 13 : 9; and "sundry expenses" at £63 : 13 : 11. These heavy items, amounting to £463 : 16 : 11, should be more clearly entered in the published accounts, so that they may be properly distributed and understood. Since the commencement of our reports, the General Superintendent has resigned. The report of the Subcommittee to which we refer recommended that the office be abolished ; we heartily second that advice. Of four house-surgeons one alone remains ; and we observe that the advertisement commences the economical reforms, which we do not doubt are impending at the hospital, by reducing one of the salaries on the list which the Committee of Investigation did not consider excessive; viz., by cutting the salary of the one paid responsible resident medical officer from the poor pittance of £109 a year to £60 a year—a very characteristic piece of economy, when their object should have been to have secured for this post, on which the well-being of the hospital and its patients so largely depends, a highly qualified and experienced medical officer of a certain age and ability. However, we shall think the better of the prospects of the hospital when it is clear that this reduction, which could hardly have been made without pain and regret, is but the forerunner of others which have been definitely recommended after elaborate investigation, and of which the Board have the assurance of a most important Subcommittee that they will save the expenditure while they will *not* injure the efficiency of the hospital.

The somewhat mixed arrangement of the items of expenditure in the published balance-sheet prevents us from examining certain particulars which are of interest ; such as the cost of drugs in the dispensary, which, in the accounts published, are mixed up with the cost of wines and spirits, surgical instruments, and dispensary sundries. We applied unsuccessfully for information as to these items. Taking, however, some items, which are displayed separately, and comparing them with other entries of a similar character in the accounts of the metropolitan hospitals, we find some comparative figures, which it will be instructive to the Board of the Royal Free Hospital that we should bring under their notice. Thus :

	Royal Free.	University.	Westminster.	Charing Cross.	King's College.	St. Mary's.
	85 beds.	130 beds.	191 beds.	120 beds.	162 beds.	157 beds.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Butcher......	1220 9 3..	1157 7 0..	1248 3 2..	605 2 0..	1362 3 9..	1128 9 6
Bread........	253 0 7..	385 6 2..	288 18 1..	260 13 11..	293 17 4..	335 9 7
Potat. and veg.	121 18 3..	76 3 11..	76 1 6..	91 1 0..	129 3 7..	104 10 7

These are a few items of expenditure on provisions, in which nearly all the hospital accounts are made after a similar fashion ; more compound entries it is difficult to analyse fairly. We may observe, however, that at the Royal Free Hospital, where tea and sugar are not found for patients, that item figures for £143 : 14 : 5; while at the Westminster Hospital, under a similar arrangement, and for its much larger number of beds, the sum entered is £81 : 13 : 5. We do not attempt to explain, or to put any sort of interpretation on, these figures. We take them from the accessible public sources, subject to any alterations, deductions, or explanations which may be afforded. But we cannot but think it our imperative duty to invite to them the attention of the Weekly Board and of the general body of governors. In all other hospital accounts, also, we find an entry to the credit of the hospital for "kitchen-stuff" sold ; but, although the bills for provisions at the Royal Free Hospital are what we have stated, we can discover no such item on the credit side of the account. At University College, it figures for £34 : 10 : 10; at St. Mary's, £30 : 6 : 10; at the Westminster, £23 : 10 : 9; at King's College, £15 : 16 : 4; at the London, £76 : 3 : 7; at the Middlesex, £59 : 14. At the Royal Free, it is conspicuous by its absence.

The Rev. J. B. Owen writes to the *Times* to charge our reports generally with exaggeration and misstatement. We meet that statement in the only way in which such a general statement can be met—by a challenge to justify it by details. We ask Mr. Owen's attention to the details in our present report ; and, that there may be no misapprehension as to his own position at the hospital, we quote the paragraph in which is mentioned the proposed substitution for his salary of £100 a year, with cab-expenses, etc., an honorarium of £50 a year.

"Your Committee have taken into consideration the duties of Chaplain; and they feel it but just to the Rev. J. B. Owen (the present Chaplain of the Hospital), to refer to his liberal offer to perform the duties of Chaplain gratuitously. There are, however, many expenses attending these duties (such as the supply of a substitute during temporary absences, coach-hire, etc.), which it would be manifestly unfair to throw upon an Honorary Chaplain; and your Committee are happy to be able, with the full concurrence of Mr. Owen, to recommend that henceforth the office of Chaplain to the Hospital shall be deemed an honorary one, the annual sum of £50 being placed at the Chaplain's disposal to meet the contingent expenses before referred to. Your Committee are of opinion that the amount of religious instruction afforded to the inmates of the Hospital by the Chaplain, and the Scripture Reader under his direction (as detailed to them by Mr. Owen), is sufficient and reasonable ; and they have no reason to suppose that its efficiency will be impaired under the proposed new arrangement, whilst a saving of £50 *per annum* will thereby be effected."

The Report is signed by James Hopgood (Chairman), H. Hoare, G. Moore, J. W. Watkins, W. T. Pritchard, B. Coulson Robinson, and C. Candy—names which must command confidence. We heartily hope that the many administrative and financial improvements which they suggest will be carried out ; and that the further strictures which we have felt it our duty to pass upon the condition and management of the hospital will be accepted by the governors as the most important service which could have been rendered to their charity, and will lead to an early and total reorganisation. We shall watch the result with interest, and report improvements with pleasure.

⁂ A former House-Surgeon of the Royal Free Hospital may, with greater advantage, address his important corroborative communication to the *Times* and *Daily Telegraph*. Will Mr. D. C. and our correspondent in the Isle of Wight oblige us by adopting a similar course if they wish publication to be given to their statements? We have now devoted as much space as we can afford to this subject, important as it is, and its further developments concern the public even more than the profession.

THE MEDICAL CLUB.

THE new Medical Club-house in Spring Gardens was opened on Thursday, the 9th instant, when the members and friends of the club dined together ; Sir William Fergusson in the chair ; and Sir Charles McGregor and Sir Ranald Martin in the vice-chairs. The Chairman, in proposing "Success to the Medical Club," remarked that, although the club was only in the second year of its existence, it had, by careful management and prudent forethought, already acquired a very favourable position. The chief object of the club was to supply the means of increased social intercourse, and to promote harmony and good fellowship between all members and grades of the profession. The want of such an institution had long been felt. A club of this kind, Sir W. Fergusson said, must necessarily in time exercise considerable influence upon the politics of the profession ; and the opinions of the profession could not fail, through the medium of the club, ultimately to obtain increased weight and importance in the House of Commons. While it was not proposed to limit the membership of the club to medical men, it had been felt that, as the club was established mainly for the convenience of members of our profession, it ought to bear some distinctive name ; and it had been resolved to name it the "Medical Club." It might fairly be anticipated that the Medical Club will ultimately become the favourite resort of the scientific men in the metropolis. Since the establishment of the club the number of members has steadily risen to about seven hundred. To carry out all the improvements still in contemplation, it has been decided next year to increase the amount of the annual subscription. The carrying out of this arrangement will (whilst it supplies the means of more efficiently carrying on the club) give greater confidence in the soundness of the undertaking. The Chairman was repeatedly cheered during the delivery of his speech ; and the toast was drank with enthusiasm. With it was associated the name of Dr. Lory Marsh, the honorary secretary, who had devoted considerable time and labour to the development of the club.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-sixth Annual Meeting of the British Medical Association will be held at Oxford, on Tuesday, Wednesday, Thursday, and Friday, the 4th, 5th, 6th, and 7th days of August next.

President—WM. STOKES, M.D., D.C.L.Oxon., Regius Professor of Physic in the University of Dublin.

President-Elect—H. W. ACLAND, M.D., LL.D., F.R.S., Regius Professor of Medicine in the University of Oxford.

The business of the meeting will be conducted under *five* Sections; viz.:—

Section A. MEDICINE.—*President*, Sir Wm. Jenner, Bart., M.D., F.R.S. *Secretaries*, Dr. E. L. Fox, Clifton; Dr. William Roberts, Manchester.

Section B. PHYSIOLOGY.—*President*, Professor Rolleston, M.D., F.R.S. *Secretaries*, Dr. W. L. Church, London; Professor Beale, M.B., F.R.S., London.

Section C. SURGERY.—*President*, James Paget, Esq., F.R.S., London. *Secretaries*, T. P. Teale, M.A., M.B., Leeds; W. Stokes, jun., M.D., Dublin.

Section D. MIDWIFERY.—*President*, Sir C. Locock, Bart., M.D., F.R.S., London. *Secretaries*, Dr. Wilson, Glasgow; J. G. Swayne, M.D., Clifton, Bristol.

Section E. PUBLIC MEDICINE.—*President*, J. Simon, Esq., F.R.S., London. *Secretaries*, J. E. Morgan, M.D., Manchester; T. J. Dyke, Esq., Merthyr Tydvil.

Papers shall not exceed *twenty* minutes. All subsequent speakers not to exceed *ten* minutes.

TUESDAY, *August 4th*, 1868.

1 P.M. Meeting of Committee of Council in the Clarendon Buildings, Broad Street.

3 ,, Meeting of General Council in the Convocation House.

7.30 ,, First General Meeting in the Hall of Christ Church.—The retiring President, Professor STOKES, will resign his office.—The new President, Professor ACLAND, will deliver his Inaugural Address.—The Council's Report will be read, and discussion taken thereon.—Election of General Secretary.—Election of Auditors.—Report of Medical Benevolent Fund.—Presentation of Hastings Medal.

WEDNESDAY, *August 5th.*

8.30 A.M. Breakfast of the Association at the Clarendon Hotel. Tickets to be had at the Reception Room.

9.30 ,, Meeting of new Council in the Convocation House.

10.30 ,, Second General Meeting in the Divinity School.—The appointment of Place of Meeting in 1869, and of the President-elect, will be made.—The Rev. Professor HAUGHTON will read a paper on Sources of Vital and Mechanical Force derived from Food, and its Influence on Medical Practice.—Report of Joint Committee of British Medical Association and of Social Science Association will be read.

2 P.M. Third General Meeting in the Divinity School.—Address in Physiology, by Professor ROLLESTON, F.R.S.

3 to 6 ,, Sectional Meetings.

8.30 ,, The President's *Soirée* at the University Museum.

THURSDAY, *August 6th.*

10 A.M. Fourth General Meeting in the Divinity School.—Professor HUGHES BENNETT, M.D., will read the Report of the Committee on the Action of Mercury as a Cholagogue.

11 ,, Honorary Degrees will be conferred in the Sheldonian Theatre.

11.30 to 2. Sectional Meetings.

2 P.M. Fifth General Meeting in the Divinity School.—Address in Medicine, by Dr. GULL.

3 to 6 ,, Sectional Meetings.

7 ,, Dinner of the Association in the Hall of Christ Church. Tickets to be had at the Reception Room *only*.

FRIDAY, *August 7th.*

10 A.M. Sectional Meetings.

4 P.M. Concluding General Meeting in the Divinity School.

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary, at their earliest convenience. All papers should be in the hands either of the General Secretary, or of the President, on or before the 1st of August; and notice should be immediately given to one of the Secretaries of the Section to which the paper belongs.

A room will be opened in the Town Hall as a Reception Room, on Tuesday, August 4th, at 10 A.M., and on the following days at 8 A.M., for the issue of tickets to members, and for supplying lists and prices of lodgings, and other information.

The Library, Writing- and News-rooms of the Oxford University Debating Society, in Frewen Court, Corn Market, will be open to all members of the Association during their stay.

All Gentlemen intending to visit Oxford during the meeting are requested to send their names without delay to E. Chapman, Esq., M.A., Frewen Hall, Oxford.

The following notices of motion have been given.

The SECRETARY: To alter Law XIV by adding, "provided he shall have the votes of three-fourths of those present at such meeting."

Dr. DAVEY: To alter Law VIII, by substituting the word "twenty" for "ten" members, to be elected members of the Committee of Council.

Dr. ALEXANDER HENRY: "That the following be substituted for Law III; viz., The Association shall consist of Ordinary Members, being duly qualified members of the Medical Profession, and of Honorary Members having the qualifications described in Law XVIII." "That the following be substituted for Law XVIII; viz., Honorary Members may be elected by the Association at an Annual Meeting, on the recommendation of the Council. The following classes of persons shall be eligible: *a.* Members of the Medical Profession, of scientific eminence, residing in the United Kingdom, or in the Colonies or Foreign Countries; *b.* Gentlemen resident in the United Kingdom, or in the Colonies or in Foreign Countries, not belonging to the Medical Profession, but distinguished in Sanitary or in Physical Science; *c.* Gentlemen who may have rendered distinguished service to the Association. Honorary Members shall not be entitled to any further privilege than that of attendance at the Annual Meetings, and to the receipt by any such Member of copies of any memoir or communication of his printed by the Association."

The Rev. Dr. BELL: "That it is desirable to secure a Local Treasurer for the District of each Branch Association (the Secretary or Treasurer of the Branch might be the best suited if it could be so arranged), to whom the Subscriptions of Members might be paid; and that the gross amounts received should be forwarded to the General Treasurer, and not to the General Secretary, as is now done; and that the list of paid Subscriptions might be published on the JOURNAL, instead of separate receipts being given."

Papers, etc., have been promised from:

J. ALTHAUS, M.D. (London): Anæsthesia of the Fifth Cerebral Nerve.

R. BARNES, M.D. (London): The Diagnosis of Early Pregnancy.

T. BRYANT, F.R.C.S. (London): Impacted Fracture of the Neck of the Thigh-bone, more particularly in reference to its Diagnosis; with Cases.

J. BIRKETT, F.R.C.S. (London): The Mortality of Abdominal Hernia; with Suggestions for its Diminution.

W. T. BLACK, Surgeon-Major Royal Army (Aberdeen): The Sanitary Condition of Hong Kong during the Epidemic in 1865.

H. DOBELL, M.D. (London): On the Mode of Admission to Hospitals.

P. EADE, M.D. (Norwich): The Etiology of Phthisis.

B. W. FOSTER, M.D. (Birmingham): The Use of Ether in the Treatment of Pulmonary Consumption.

SAMPSON GAMGEE, F.R.S.Ed. (Birmingham): Rest, Position, and Pressure; with Special Reference to the Treatment of Fractures of the Limbs.

W. HARDWICKE, M.D. (London): Public Mortuaries in Large Towns.

T. HAYDEN, F.K.Q.C.P. (Dublin): The Differential Diagnosis and Signification of certain Endocardial Murmurs.

J. HIGGINBOTTOM, F.R.C.S., F.R.S. (Nottingham): Ipecacuanha in Emetic Doses, as a Stimulant, Restorative, Eliminative, and Adjuvant, in various cases of Disorder and Disease.

G. M. HUMPHRY, M.D., F.R.S. (Cambridge): Torsion of Arteries.—On some Forms of Growth.

J. I. IKIN, F.R.C.S. (Leeds): The Physical Causes of Disqualification for Service in the Army and the Militia; and the Medical Regulations with respect to the formation of the Militia Reserve.

G. JOHNSON, M.D. (London): Blood-letting, Heat and Cold, and Irritants, in the Treatment of Disease.—Microscopic Specimens and Drawings of Hypertrophied Arteries in Chronic Bright's Disease.

T. LAYCOCK, M.D., F.R.S.Ed. (Edinburgh): Suggestions for Improving the present unsatisfactory state of the Law in regard to persons labouring under Mental Disorders and Defects.

P. C. Little, F.R.C.S.I. (Dublin): Concussion of the Brain and Spine; with Cases.

E. D. Mapother, M.D. (Dublin): The Appointment of District Physicians, to whom all Public Medical Functions should be entrusted.

R. Martin, M.D. (Warrington): Intemperance as a Factor in the Production of Epidemic Disease.

G. May, jun., M.B., F.R.C.S. (Reading): Aneurism of the Innominate Artery, treated by Acupressure of the Carotid and Brachial.

W. Moore, M.D. (Dublin): Non-Symmetrical Dropsies.

E. A. Newnham, M.R.C.S. (Wolverhampton): The Remuneration for Medical Attendance on Sick Clubs, etc.

T. Nunneley, F.R.C.S. (Leeds): Cases illustrative of the Surgery of the Ankle-joint.

F. Oppert, M.D. (London): Medical Education in England and abroad compared.

J. Paget, F.R.C.S., F.R.S. (London): Stammering with other Organs than those of Speech.

D. Ll. Roberts, M.D. (Manchester): Two cases of Ovariotomy in which Pregnancy subsequently occurred.

A. E. Sansom, M.D. (London): Anæsthetics of the Present Day.—Anæsthesia, and the Action of Anæsthetics.

Protheroe Smith, M.D. (London): Bromide and Bibromide of Mercury as Therapeutic Agents.—A Successful Method of Treating Flexions of the Uterus by Means of an Elastic Pessary.

G. Southam, F.R.C.S. (Manchester): Lithotomy.

J. K. Spender, M.B. (Bath): Some Points in the Symptoms and Treatment of Capillary Bronchitis.

H. Stear, M.R.C.S. (Saffron Walden): The Propriety of the Appointment of a Committee to draw up a Recommendatory Tariff of Club Remuneration.

W. Strange, M.D. (Worcester): The Pathology and Treatment of Disorders of the Nervous System accompanied by Excess of Motility.

H. Swete, M.R.C.S. (Weston-super-Mare): The Importance of obtaining Correct Comparative Observations in Estimating the Influence of Light in Health and Disease; illustrated by the Actinograph.

C. Taylor, M.D. (Nottingham): Further Observations on an Improved Method of Extracting in Cases of Cataract.

J. Tufnell, F.R.C.S.I. (Dublin): The Cure of Internal Aneurism.

F. Winslow, M.D., D.C.L. (London): The Incipient Symptoms of Softening of the Brain.

E. Woakes, M.D. (Luton): Ergot of Rye in the Treatment of Neuralgia.

J. R. Wolfe, M.D. (Aberdeen): The Removal of Cancer by Caustic Arrows and Carbolic Acid.

T. Watkin Williams, F.R.C.S., *General Secretary.*

13, Newhall Street, Birmingham, July 1868.

FORMATION OF A NEW BRANCH IN CUMBERLAND AND WESTMORELAND.

A large and influential meeting of the profession was held at Carlisle on Wednesday, July 1st, for the purpose of inaugurating a new Branch of the Association. Representatives from all parts of the counties of Cumberland and Westmoreland were present. Dr. Elliot of Carlisle was called to the Chair, and explained the advantages of a Branch Association, and the preliminary steps that had been taken to obtain a Branch for the two counties. The following three resolutions were carried unanimously.

Formation of Branch.—Proposed by Dr. Dodgson of Cockermouth, and seconded by Dr. Jones of Aspatria—"That a Branch of the British Medical Association be formed, under the name of the Cumberland and Westmoreland Branch, to include the members of the Association residing in these two counties."

Objects.—Proposed by Dr. Clouston of Carlisle, and seconded by Dr. Robertson of Penrith—"That the objects of the Branch be the drawing together, at stated intervals, of every enrolled member of the British Medical Association residing in the locality, the reading of short papers, the discussion of strictly professional topics, and the promotion of cordiality by a social dinner; at which meetings, discussions, and dinners, every qualified medical man to be a welcome visitor."

Office-Bearers.—Proposed by Mr. Reeves of Carlisle, and seconded by Dr. McGregor of Penrith—"That, in order to carry out the objects of the Branch, there be appointed annually a President; a President-elect; a Secretary, who shall also act as Treasurer; and six other members, to constitute a Council or Committee of Management; and one Representative to the General Council for every twenty members of the Branch."

Meetings.—It was proposed by Dr. Fothergill of Marland, and seconded by Dr. Taylor of Penrith—"That the annual meeting be held in the months of June or July, in some convenient town in the district, as may be determined by the Council; and that two other meetings be held, the time and place of such meetings to be fixed at the annual meeting; that the notices of all meetings contain a list of the papers, cases, and subjects to be brought forward; and that information of all intended communications be forwarded to the Secretary three weeks before the meeting; and that the Council have the power to call a special meeting upon emergency."

A discussion ensued as to the number of meetings to be held annually. An amendment, limiting the number of meetings to two, was rejected by a large majority, and the resolution passed.

The next three resolutions were carried unanimously.

Admission of New Members.—Proposed by Dr. Lockie of Carlisle, and seconded by Dr. Knight of Keswick—"That any member of the profession, wishing to enrol himself as a member of the Association and Branch, must communicate his wish, with the name of his proposer, three weeks previously to any meeting."

Subscription.—Proposed by Dr. Carlyle of Carlisle, and seconded by Dr. Walker of Carlisle—"That each member do contribute the sum of two shillings and sixpence annually for the necessary expenses of the Branch."

Alterations in Laws.—Proposed by Dr. Lockie, and seconded by Dr. H. Barnes of Carlisle—"That any member wishing to propose a new law, or an alteration in any existing law, must send notice of his intention to the General Secretary *two months* previously to the Annual Meeting; and the Secretary shall announce, in the circulars convening the meeting, that such new law or alteration will be proposed."

Number of Members.—Dr. H. Barnes announced that forty-two gentlemen residing in the two counties had joined the Association since the last meeting; and that the number of these and of old members of the Association willing to join the Branch amounted to fifty.

Election of Officers.—The meeting proceeded by ballot to the election of office-bearers, Dr. Carlyle and Dr. Maclaren acting as scrutineers. Thomas Barnes, M.D., F.R.S.E., was elected President; Michael W. Taylor, M.D., President-elect; Henry Barnes, M.D., Honorary Secretary and Treasurer; and the following gentlemen to constitute the Council: T. Green, M.B., Kendal; R. Elliot, M.D., Carlisle; T. F. I'Anson, M.D., Whitehaven; T. S. Clouston, M.D., Carlisle; W. Reeves, Esq., Carlisle; W. T. Greaves, Esq., Penrith.

Dr. Knight moved, and Mr. Reeves seconded, a resolution to the effect that the election of Representatives to the Council of the Association be left to the Council of the Branch. This was carried.

Ordinary Meetings.—It was resolved, on the motion of Dr. Taylor, seconded by Mr. Hall, that the next ordinary meeting be held at Whitehaven, on the second Wednesday of October; and that the second ordinary meeting be held at Kendal, in April.

A vote of thanks to the Chairman terminated the proceedings.

The members present subsequently dined together under the presidency of Dr. Barnes.

NORTHERN BRANCH: ANNUAL MEETING.

The fourth annual meeting of this Branch was held in the Central Hall, Darlington, on Wednesday, July 1st, John Jobson, Esq., F.R.C.S., Bishop Auckland, President, in the chair. There were also present twenty-three members and five visitors.

The retiring President, Dr. Charlton, expressed his warmest thanks for the many acts of kindness shown him during his year of office, and in introducing the President-Elect stated, that it needed no praises or eulogiums of his to enhance the sense of worth which had raised that gentleman to the presidential chair of the Branch.

President's Address.—The President expressed his sense of the great honour conferred upon him, and congratulated the Branch on the expansion and success which had marked it since its commencement. These congratulations, he grieved to say, were not without a touch of sorrow, for since their last anniversary they had sustained a great loss by the death of their warm friend and Associate, Dr. White. The deceased gentleman was the first President of the Northern Branch, and one of the most earnest and able members of its Council of Management. He took a great interest in its proceedings, as he did in everything relating to the welfare of the profession, the honour, dignity, and usefulness of which he strove to uphold throughout his meritorious life. Reference was then made to the forthcoming Meeting of the Association at Oxford, more especially to the announcement that there would be a section for the consideration of the important subject of Public Medicine, which he was certain would be viewed by many with no small satisfaction. Another great and useful feature of the Association, viz., the formation of Committees for scientific investigation, was highly commended. The President then adverted to "the antiseptic treatment of wounds," to the successful cure of severe forms of compound fracture and abscesses by the use of carbolic acid applications, and the means of arresting hæmorrhage by ligature, acupressure, and torsion.

Mr. T. E. PIPER proposed "That the best thanks of the Meeting be given to their worthy President for his admirable address."

The proposition was seconded by Dr. MACKINTOSH, and carried by acclamation.

Vote of Thanks.—Mr. G. SHAW then proposed "That the best thanks of the Meeting be awarded to Dr. Charlton, the Council of Management and other officers, for their services during the past year." This being seconded by Mr. H. G. HARDY, was also carried with acclamation, and acknowledged by Dr. Charlton.

New Members.—The Secretary announced that since the last Annual Meeting twenty-three gentlemen had been elected Members of the Branch. The following gentlemen, having been proposed in proper form, were unanimously elected Members of the Association and Branch: George Berwick, M.D., Sunderland; Luke Blumer, M.D. Sunderland; Robert Nesbitt Robson, Esq., Durham; and Robert Smeddle, Esq., Shildon.

Treasurer's Report.—Dr. PHILIPSON read the Treasurer's statement, which showed that the balance in hand, at the commencement of 1867 was 7s. 3d., and the amount received in the shape of annual subscriptions, £9 : 2 : 6, total £9 : 9 : 9. The expenses during the year amounted to £9 : 1 : 10, leaving on December 31st, 1867, a balance of £0 : 7 : 11.

Officers for 1867-68.—On the motion of Dr. CLARK, seconded by Mr. T. FIELDEN, it was unanimously resolved,—"That the next annual meeting be held in Newcastle; that D. Embleton, M.D., be President-elect; G. H. Philipson, M.D., Honorary Secretary and Treasurer; and E. Charlton, M.D.; G. Y. Heath, M.D.; S. E. Piper, Esq.; and Geo. Welford, Esq., the Council of Management."

Representatives to the General Council.—On the motion of Dr. HUTCHINSON, seconded by Mr. R. FRASER, the following members were elected to represent the Branch in the General Council of the Association:—Sir John Fife; E. Charlton, M.D.; D. Embleton, M.D.; John Jobson, Esq.; H. G. Hardy, Esq.; and G. H. Philipson, M.D., x *officio.*

Specimen.—Dr. A. T. Donkin exhibited three large gall-stones, which had forced their way from the gall-bladder into the trunk of the vena portæ.

Papers.—Dr. J. W. Eastwood read a well-argued paper on "the Uncertainties of the Present State of Legal Medicine." The paper dealt with the four principal departments of medico-legal practice. 1. The legal capability of making a will. 2. Proof of a person's soundness of mind and fitness for managing his own affairs. 3. The question of insanity in criminal cases. 4. The admissibility of insane evidence in a court of law. After discussion, in which Mr. SHAW, Dr. REID, and Dr. PHILIPSON took part, Dr. EASTWOOD moved—"That this meeting s satisfied that great uncertainty exists in many medico-legal inquiries, and much conflicting testimony is caused by the present state of the law; t, therefore, approves of the 18th and 19th sections of the memorandum on state medicine, drawn up by a joint committee of the British Medical and Social Science Associations, and earnestly hopes that a Royal Commission will be appointed to inquire into these and other matters which need legislative interference."

This was seconded by Dr. DONKIN, and unanimously passed.

Dr. George Oliver was prevented from reading a paper on "Aphasia," owing to want of time.

The meeting ended with votes of thanks to Drs. Eastwood and Donkin.

Dinner.—The members and their friends, to the number of thirty-two, afterwards dined together at the King's Head Hotel, the President in he chair; supported on the right by Henry Pease, Esq., Mayor of Darington, and the Rev. Father Coll; and on the left by the Rev. W. E. Pearson, vicar of Darlington.

WEST SOMERSET BRANCH: ANNUAL MEETING.

THE annual meeting of the West Somerset Branch was held at Bridgewater, on Thursday, July 2nd. There were present fifteen members nd one visitor.

The members first assembled at the residence of W. L. Winterbotham, Esq., M.B., and partook of an elegant lunch. The party then adjourned o the Clarence Hotel for the general meeting.

Absent Members.—The Secretary accounted for the unavoidable absence of the President, Mr. Cornish, and of many other members, from whom letters of regret were produced.

The President-elect, W. L. WINTERBOTHAM, M.B., was then called o the chair. Mr. Winterbotham, in assuming his office as President for the year, delivered an able address. He passed in review various subjects of professional interest which had engaged attention since the last annual meeting; and with persuasive language dilated on the benefits which the Association confers on its members.

Vote of Thanks.—A cordial vote of thanks to the President for his address was carried by acclamation.

The Minutes of the last annual meeting were read.

Report of Council.—The following Report of Council was then read and adopted. "1. At this, the twenty-fifth anniversary of the West Somerset Branch of the British Medical Association, the Council must first offer a word of congratulation to its members on the prosperous condition the Branch now presents. At no period during the quarter of a century of its past existence has it shown a more healthy appearance than it now does. 2. The number of members on the list is forty-two. [Three more were admitted after this Report was read.] 3. At two intermediate meetings, held in September and April (as agreed upon at the last annual meeting), a number of interesting papers and cases were communicated. Those gentlemen who were present can testify that these meetings were not less conducive towards maintaining good feeling and harmonious action amongst medical men, than towards that other special object of our Association—namely, the promotion of medical science. 4. Your Council, being invited to co-operate with the Parliamentary Committee of the Metropolitan Counties Branch, with a view to watching any Parliamentary action touching the interests of the medical profession which might occur, appointed Mr. H. J. Alford as their representative to the said Committee. From the attention of the Legislature being so engrossed in other subjects, the Medical Acts Amendment Bill and some other Bills which were introduced into Parliament have not been advanced. The labours of the Committee, although not useless, have not shewn results calling for special notice. 5. The finances of the Branch are in a flourishing condition, showing a balance in hand of £6 : 2 : 10. The claims of the Medical Benevolent Fund to general support need no recommendation from your Council; but they would direct the attention of non-subscribing members to the great benefit which the Fund confers on distressed members of the profession. 6. Lastly, your Council, in presenting their Report, desire to express the great pleasure they feel at having to do so under the auspicious circumstance of the meeting being again held this year in the town of Bridgewater after an interval of twelve years estrangement. They venture to express a confident hope that great good will henceforth accrue mutually, both to the Branch and to this town and neighbourhood,—to the former, from the accession of strength it may expect to derive from change of air; and to the latter, from many of the medical men resident here availing themselves of the opportunity offered of joining the Branch, and participating in the advantages which it offers.

"Dated July 2nd, 1868.

"(Signed) C. H. CORNISH, *Chairman.*"

Treasurer's Report.—The Treasurer's balance-sheet, duly audited, was presented and approved.

Parliamentary Committee.—A letter from Mr. H. J. Alford, respecting the proceedings of the Parliamentary Committee, was read. He regretted he was unable to be present, and hoped that members having any suggestions or remarks to make relative to Bills in Parliament would communicate with him.

New Members.—The President announced that three new members had been admitted at a Council meeting held that morning—namely, Mr. Richard Axford, of Bridgewater; Dr. Edward Carse, of Weston Zoyland; and Dr. Frederick E. Pearse, of Wellington. He also proposed the names of three others—namely, Dr. J. F. V. Bent, Dr. Frederick Farmer, of Bridgewater, and Dr. Alexander T. Macgowan, of Martock, who being duly seconded, were declared duly admitted as members of the Association and of the Branch.

Intermediate Meetings.—It was resolved—"That there shall be two general meetings held during the ensuing year: the first at Taunton, on Wednesday, 30th September, 1868; and a second at Bridgewater, on Thursday, 31st March, 1869."

Next Annual Meeting: President-elect.—It was resolved—"That the next annual meeting be held at Taunton, and that W. J. Alford, Esq., M.B., be President-elect."

Representatives in the General Council.—It was resolved—"That W. L. Winterbotham Esq., M.B., and Henry Alford, Esq., be the representatives of the Branch in the General Council, together with the Secretary, who acts *ex-officio.*"

Members of the Council of the Branch.—It was resolved—"That Dr. W. H. Axford, Dr. Farmer, and G. Gillett, Esq., be elected to fill the vacancies in the Council."

Secretary and Treasurer.—It was resolved—"That Dr. W. M. Kelly be re-elected as Honorary Secretary and Treasurer."

Votes of Thanks to the past President, to the Council for the past year, and to the Secretary and Treasurer, were passed.

Surgical Instruments, etc.—A collection of surgical instruments, chemicals, and drugs (exhibited by Messrs. Hancock, of Bath, and by Messrs. Ferris and Co., of Bristol, at the request of the President), embracing the most recent inventions and discoveries, was inspected with great interest.

Papers.—Dr. W. H. Axford read a paper "On the Contagious Diseases Act," which contained much interesting matter, and might have led to a discussion, but the dinner hour had arrived. He was thanked for the paper.—Other papers were deferred to the next meeting.

Dinner.—The members of the Branch were honoured at dinner by the presence of several gentlemen of Bridgewater, representing severally, the church, the volunteers, and the town of Bridgewater. The band of the 26th Somerset Regiment played in front of the hotel after dinner.

The meeting at Bridgewater will long be remembered as one of the most successful which the Branch ever held. But, beyond the enjoyment of the day, a real and lasting benefit may be expected to accrue to the Branch from the strength which the new members bring to it.

METROPOLITAN COUNTIES BRANCH: ANNUAL MEETING.

THE sixteenth annual meeting of the Metropolitan Counties Branch was held at the Crystal Palace, Sydenham, on Wednesday, July 8th. In the unavoidable absence of the retiring President, Dr. MARKHAM, the Chair was taken by HENRY LEE, Esq., one of the Vice-Presidents.

The minutes of the last meeting were read and confirmed.

Report of Council.—Dr. STEWART, one of the Honorary Secretaries, read the following report.

"The Metropolitan Counties Branch, at this its sixteenth annual meeting, numbers 303 members. At the last annual meeting, the number on the list was 287. Of these, twelve have been removed by death or resignation; and twenty-eight new members have been added.

"The Council has to regret the loss by death of the following members of the Branch: Mr. W. Butler of Pentonville; Mr. P. H. Dalton of Piccadilly; Dr. W. Thiselton Dyer of Berkeley Street; Mr. John Propert, founder of the Royal Medical Benevolent College, and the second President of this Branch; Dr. Edward Ray of Dulwich; and Mr. G. Robins of Charlotte Street.

"During the year, two ordinary meetings have been holden. At the first of these, on March 20th, Dr. Anstie introduced a discussion on the Use of Alcohol in Acute Disease; and at the second, on May 15th, a paper on the Education of the General Practitioner of Medicine was read by Dr. Henry. Both meetings were well attended, and the papers were followed by interesting discussions.

"The Branch has been called on this year to investigate a subject of a painful nature, the inquiry into which has involved the professional conduct of some of its members. It will not be necessary to recapitulate the proceedings which took place in reference to this matter at the special general meetings on March 10th and June 1st, as they have been sufficiently reported in the BRITISH MEDICAL JOURNAL. Your Council would, however, record their grateful sense of the assiduity, impartiality, and sound judgment with which the Special Committee appointed to investigate the matters relating to Dr. Eastlake, Dr. Edmonds, and the Editor of the BRITISH MEDICAL JOURNAL, conducted the difficult and unpleasant inquiry entrusted to them. Your Council cannot refrain from expressing their opinion that a public apology, which has not yet been tendered, notwithstanding the judgment of the Committee of Investigation that his language and printed charges were 'most ungentlemanly and most unprofessional', is due from Dr. Edmunds to Mr. Hart and to the Association.

"The Council see with much pleasure that the high rate of increase in the Parent Association is still maintained; and that, under the able management of its editor, the influence of the JOURNAL is steadily growing. They look forward with pleasing anticipation to a large and successful meeting at Oxford, which, they trust, will be largely attended by metropolitan members.

"Your Council notice with satisfaction that the Association has at length taken up with much earnestness not only the amendment and consolidation of the laws relating to the Public Health, to which this Branch drew the special attention of the medical profession and of Her Majesty's Government more than two years ago, but also the subject of State Medicine in all its manifold relations. After a luminous and very able paper read at Dublin by Dr. Rumsey, who is acknowledged by all as preeminently qualified to handle this subject, a large and influential Committee was appointed to obtain information, either by a Royal Commission of Inquiry, if that could be obtained from the Government, or through the agency of our Association. In the event of the Government declining to accede to the request urged upon them by a numerous and very influential deputation from the British Medical and Social Science Associations, this Branch may be called upon, in common with the other Branches throughout the country, to aid the Committee in their praiseworthy and public-spirited, but arduous task. Meanwhile, it is a source of much gratification that, after the presentation of a memorial from the State Medicine Committee of the British Medical Association to the General Medical Council during its session just now concluded, the Medical Council has, on the motion of Dr. Acland, appointed a Committee to investigate the subject of State Medicine, and to make a report thereon next year. Your Council trust that the labours of that Committee, in conjunction with those of the Association and of this Branch, may lead to that reform in our sanitary legislation which is so much needed.

"The Parliamentary Bills Committee, which, under the energetic management of Dr. Gibbon, the Honorary Secretary, has done so much good work for the profession and the public, has during the past year been adopted by the Parent Association, which has voted a grant of money towards defraying its expenses. Every Branch of the Association has appointed a representative to the Committee, which receives written communications, often of great value, from those who cannot attend its meetings. A brief notice of its proceedings will be given by Dr. Gibbon.

"The Council have watched with deep interest the proceedings of the Association at its last annual meeting in reference to the direct representation of the profession in the General Medical Council, as also the reception of the deputation by the Council; and they cannot permit themselves to doubt that this Branch will cooperate heartily with the Committee in any measures that may be thought advisable for securing the important object entrusted to their care."

Mr. WILLIAM MARTIN proposed, Mr. GANT seconded, and it was unanimously resolved,—"That the Report be received and adopted."

Parliamentary Bills Committee.—Dr. GIBBON gave a brief *vivâ voce* statement of the proceedings of this Committee.

The Sale of Poisons, etc., Bill.—Dr. GIBBON proposed—"That a deputation be appointed to wait upon the Home Secretary to urge the propriety of referring 'the Sale of Poisons and Pharmacy Act Amendment Bill' to a Select Committee of the House of Commons."

Mr. LORD seconded the motion.

Mr. HART objected to the proposal, on the ground that the Bill had objects, such as raising the education of druggists, with which all must sympathise. Its defects had been pointed out by the Medical Council, whose suggestions were likely to receive attention.

Dr. WEBSTER thought that the tendency of educating druggists would be to raise up a new class of medical practitioners.

Mr. LORD, Mr. FELCE, and Dr. GIBBON also took part in the discussion; and the motion was carried by a majority of 13 against 8.

The deputation was then, after some discussion, appointed to consist of Mr. Erichsen, Mr. Lee, Dr. Sibson, Dr. Stewart, Mr. Dunn, Dr. Johnson, Mr. Lord, Dr. Webster, Dr. Gibbon, and Dr. Ramsay, with power to add to their number.

Mr. HART moved that it be referred to the Parliamentary Committee to draw up instructions for the deputation. The motion was seconded by Mr. FELCE, and carried.

Financial Statement.—The financial statement, made up to July 7th, and signed by Mr. Rogers-Harrison and Mr. H. Lee as auditors, was read. It shewed the receipts and arrears due to amount to £52 : 5, and the expenditure to £31 : 1 : 2, leaving as available assets £21 : 3 : 10, of which £7 : 15 : 2 was cash in hand.

Representation of the Profession in the Medical Council.—Dr. WEBSTER moved the following resolutions :—

"That this Branch, having considered the question of representation of the profession in the General Council of Education and Registration, is of opinion that, though the various universities, colleges, and medical corporations are fully represented, there is no adequate or direct representation of the non-incorporated members of the profession.

"That this Branch do urge upon the Legislature by petition and other means the importance of direct representation of the profession at large in the General Council.

"That the number of members of the General Council be increased by at least one-fourth, to be elected by the registered members of the profession in such manner as may be found most expedient.

"That a deputation be appointed to wait on the Home Secretary, and to take such other steps as may be necessary to carry out the object in view."

"That the following gentlemen do form the deputation, with power to add to their number:—John E. Erichsen, Esq.; Henry Lee, Esq.; Dr. G. Webster; Dr. Ramsay; C. F. J. Lord, Esq.; W. Martin, Esq.; Dr. Henry; and Dr. Sibson."

OF THE UNIVERSITY OF ILLINOIS

Mr. ERICHSEN seconded the resolutions, which were unanimously carried.

Election of Officers and Council.—The voting lists having been collected, the following members were declared to be elected officers and Council for the next year:—*President:* John E. Erichsen, Esq. *President-Elect:* G. Johnson, M.D. *Vice-Presidents:* H. Lee, Esq.; W. O. Markham, M.D. *Treasurer:* R. Dunn, Esq. *Secretaries:* A. P. Stewart, M.D.; A. Henry, M.D. *Other Members of Council:* W. Bartlett, Esq.; W. H. Broadbent, M.D.; S. Day-Goss, M.D.; C. H. Rogers-Harrison, Esq.; W. Lewis, M.B.; C. F. J. Lord, Esq.; Morell Mackenzie, M.D.; J. H. Paul, M.D.; W. F. Ramsay, M.D.; J. Seaton, M.D.; E. H. Sieveking, M.D.; G. Webster, M.D.

The Retiring President.—Dr. STEWART read a letter from Dr. MARKHAM, expressing his regret that the state of his health still prevented him from taking part in the proceedings of the Branch. The following resolution, moved by Dr. STEWART, was carried by acclamation, and a copy was ordered to be forwarded to Dr. Markham:—"That this meeting expresses its deep regret at Dr. Markham's absence to-day, and at the cause which has rendered it necessary; and trust that his health will soon be so completely restored as to enable him to resume with his wonted energy his arduous and very valuable public labours."

President's Address.—Mr. ERICHSEN, on taking the chair, delivered a brief extempore address. He said that there were many honours which to him were of little importance—such as those into which men gravitated, as it were, by weight of years; while he valued highly those, such as the Presidency of the Branch, to which one was elevated by his professional brethren. The pleasure which he felt in taking the chair was alloyed by the unavoidable absence of the late President; but he was gratified that his entry to office had been inaugurated by the vote which had just been proposed by Dr. Stewart and passed. He would make a few remarks on the Branch and the Association. The condition of the Branch was very satisfactory; upwards of twenty new members had been added, and the total number exceeded three hundred. Much, however, remained to be done to bring the number up to the proper proportion in London and the adjacent counties; and one of the first duties of members should be, by their individual efforts, to increase the strength of the Association. Seven members of the Branch had died during the past year. Of one of these, it would be impossible to pass over the name in silence with justice to the Branch or to the man. He alluded to John Propert—a name that would live in the profession, and would be diffused beyond it in connection with the good that he had done. The Branch had faithfully and well carried out the objects of the Association—if the promotion of science were excepted, which was scarcely to be expected from a Branch existing among a number of scientific societies. Yet there were several questions of importance—matters standing on neutral ground—which had been touched by the Branch, and which might be taken up still more completely. As to the special inquiry which had taken place, he forbore to say more than that the conduct of those gentlemen who guided the inquiry deserved the cordial approbation of the Branch. Mr. Erichsen referred to the advantageous position of this Branch in being near the centre of government; and spoke of the representation of the profession in the Medical Council. This matter could not be allowed to drop. With the greatest respect to the members of the Council, most of whom the members knew, by repute at least, as men desirous of doing their best for the good of the profession, they must be pitied on account of the position in which they are placed by the mode of their election. The General Council represents not the corporations, but the governing bodies of the corporations; and a position of this kind must be a most painful one for gentlemen of independent mind. It was most important that there should be an infusion of new blood into the Council. The Branch would have plenty to do during the coming year, in the consideration of various scientific matters, of medical education, and especially of the constitution of the Medical Council. In whatever it undertook, it would have nothing to do with classes—with physicians, or surgeons, or general practitioners; its concern was with medical men.

Representatives in the General Council.—The following members were chosen to represent the Branch in the General Council of the Association:—R. Dunn, Esq.; J. E. Erichsen, Esq.; S. Gibbon, M.B.; E. Hart, Esq; J. Hatton, M.D.; A. Henry, M.D.; G. A. Ibbetson, Esq.; G. Johnson, M.D.; H. Lee, Esq.; Waller Lewis, M.B.; C. F. J. Lord, Esq.; W. Martin, Esq.; W. F. Ramsay, M.D.; E. H. Sieveking, M.D.; G. Webster, M.D.

Dinner.—After the meeting fifty-seven gentlemen, including Professor Pancoast, of Philadelphia, and several other visitors, dined together; the chair being occupied by the President, Mr. Erichsen.

CORRESPONDENCE.

THE PLACES OF MEETING OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—Allow me to make a suggestion regarding the place of meeting of the British Medical Association for future years—namely, that our Association should meet at the same place and time as the British Association for the Advancement of Science. Medical men are but seldom able to take a holiday from their incessant professional pursuits, and but few are able to attend both these Association meetings. Yet the delightful scientific re-unions, lectures, soirées, and excursions always provided for the British Association meeting could not fail to prove a source of much enjoyment to the jaded practitioner, and would undoubtedly tempt a great many more members to join our annual gathering. Add to this that the whole range of science is the natural field of study of our profession, and that the difficulty experienced by the busy practitioner in keeping himself in some degree acquainted with what is going on in the scientific world—a most desirable object—would be greatly lessened, and his zest for scientific studies greatly increased by the opportunities for renewing his acquaintance with science which would be afforded by the meetings of the British Association. Our sections might, it is true, be somewhat more thinly attended, but the publication in the JOURNAL of papers read at this meeting is the object most desired by those who have views to bring forward, not the presence of twenty or thirty additional auditors at the actual reading of the paper, who are not to be thought of compared with the thousands of readers of the JOURNAL. Much of the interest of the British Association is, moreover, centered in their evening meetings, when the business of our sections would be over. I believe that were our Council to adopt this suggestion, they would both augment very much the numbers attending the meeting of the British Medical Association, and also add very much to the enjoyment and profit of those who should be present.—I am, etc.,

Warrenpoint, July 1868. ISAAC ASHE, A.B., M.B.T.C.D.

THE NEW METHOD OF WATER-ANALYSIS.

SIR,—On the 20th of June last year, I read to the Chemical Society an account of a new process of water-analysis by Chapman, Smith, and myself, and in the interval there has been a very violent and bitter controversy respecting it. Our process has now taken its place as one of the received parts of analytical chemistry, and we claim that the public should see that justice is done to us who have at some personal sacrifice rendered an important public service.

First, a few words may be added touching the validity of our analysis. The following is an extract from a report on the Analysis of of Samples of Water from the County Asylum Site at Brookwood, near Woking, by Professor Way.

"Laboratory, 111, Victoria Street, 9th March, 1868. By new methods of analysis, introduced by Messrs. Wanklyn and Chapman, and confirmed by most patient and careful experiments in this laboratory, we are now able to determine with great accuracy the proportion of ammonia, nitric acid, and albuminous (or animal) matter in waters; and the possession of this information enables us to judge whether and to what extent water has become polluted by the infiltration of matters of animal or vegetable origin of an injurious character, such as sewage, house drainage, etc."

There is no higher authority on the subject of water than Professor Way, who was the chemist on the Rivers Commission, which was dissolved a few months ago.

The conduct of Dr. Odling is, if possible, a more striking tribute to the validity of our process. After having joined Dr. Frankland last year in a report to a Royal Commission, in which our process was condemned, Dr. Odling gave evidence to a Committee of the House of Commons on the Derby water supply, the analyses of the samples of water according to which he gave evidence being made by our method, five of them having been made with my own hands in his laboratory at his request, and the rest having been made by his assistant, who had been instructed by me in the practical working of the process. We have spared no pains either in explaining our process, or in actually teaching the practical working of it, and now it has come into general use.

We have, finally, done the work of a water commission at our own expense, having made an examination of a considerable portion of the water-supply of the country, and proved that water from such sources as the Cumberland lakes offers no advantages over ordinary river water. The results of our labours are embodied in a small book on the subject.

I am, etc., J. A. WANKLYN.

London Institution, July 15th, 1868.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

THE POOR-LAW MEDICAL MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the Council of the Metropolitan Poor-law Medical Officers' Association, held on the 7th instant, it was unanimously resolved to recommend at the annual meeting, to be held on the 31st instant, that the title of the Association be altered to "The Poor-law Medical Officers' Association," and that all past and present medical officers in England and Wales be eligible for membership. As this alteration—if approved—of which there can be no doubt—will necessitate considerable modification of the existing rules, the Council will be prepared to submit a new code of rules which will, it is believed, be entirely satisfactory to the great body of medical officers. The objects of the Association will be extended; but, at the same time, restricted more than hitherto to matters directly affecting the welfare and interests of the members. And as it is desired to build the new Association on the widest basis, the annual subscription will be fixed at *five shillings*. The Council will be considerably enlarged, and will comprise an equal number of metropolitan and provincial members, chosen equally from workhouse and district medical officers. The formation of Local Branches will be recommended, and local honorary secretaries appointed to aid in the organisation of the Association. Several gentlemen have already tendered their services in this capacity. Gentlemen desirous of becoming members, and those especially who are willing to act as local honorary secretaries, are requested to communicate, without delay, with Dr. Rogers, 33, Dean Street, Soho, London, W.

The annual meeting will be held on Friday, the 31st instant, at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, at 2 P.M.

MEDICO-PARLIAMENTARY.

THE SALE OF POISONS AND PHARMACY BILL.

ON behalf the Parliamentary Committee of the British Medical Association, Dr. Gibbon has submitted the following observations to Lord Robert Montagu.

1. They suggest that the schedule of poisons and the examination of chemists and druggists should be placed under the supervision of the General Medical Council, rather than under that of the Privy Council.

2. Although thanking your lordship for the intention of your amendment in Clause 16, prohibitory of medical practice, they would represent that, practically, it is no prohibition at all. Any one can practise medicine and surgery. The Medical Act merely prohibits unqualified persons from using the title of "Doctor" and "Surgeon"; so that, notwithstanding your lordship's amendment, chemists and druggists can and will act as medical practitioners to any extent. To make the prohibition effective, we ask your lordship to adopt some such amendment as this: "And it shall not be lawful for any person registered under this Act to prescribe for any patient, or undertake the treatment of disease, or in any way assume to act as a medical practitioner; and every chemist and druggist so offending shall, upon a summary conviction, forfeit or pay a sum not exceeding £5."

Your lordship's proposed substitution of the word "apothecary" for "medical practitioner", at the beginning of this sixteenth clause, is objectionable, because it will compel many surgeons and licentiates of the College of Physicians, who at present compound medicines, to become licentiates of the Apothecaries' Company, or of the Pharmaceutical Society. This is unjust; and the obvious intention of the clause is to reserve the rights of such men.

3. We think it desirable that some check should be placed upon the sale of patent, quack, and other secret remedies; and have prepared the following clause to replace the eighteenth, which you propose striking out:—"No patent, quack, or other medicine, shall be sold, unless a sworn certificate of its composition be lodged with the registrar appointed under this Act, and a copy thereof be open for inspection in the shop or place in which such medicine is sold; and any person or proprietor of a shop selling any secret remedy shall, on summary conviction, for each such offence be liable to a penalty not exceeding £20."

The Pharmacy Bill has passed partly through Committee in the Commons, with various additions by Mr. Robert Lowe making it more stringent in respect to the clauses of education and registration. The poisons schedule is likely to be materially modified. The Bill will not be extended to Ireland.

The Artizans' Dwellings Bill has passed through Committee, and has come down in its amended form to the Commons. It is still defective in some of the respects to which we have already called attention.

OBITUARY.

FREDERICK GEORGE CLARKSON, M.D.,

OF DARLINGTON.

A DEEP gloom was thrown over Darlington on Saturday evening, July 4th, when it became known that the name of Dr. Clarkson was added to the long roll of the departed. Frederick George Clarkson was born at Whitby in 1831, and consequently was only in his thirty-eighth year at the time of his death. After serving an apprenticeship with his brother, Mr. W. N. Clarkson, surgeon, of Whitby, he entered University College in 1852, and highly distinguished himself during his student's career by carrying off, in the sessions 1852-3-4, the gold medals for Medical Jurisprudence, Midwifery, Surgery, and Pathological Anatomy; and the silver medals for Medicine, Anatomy, and Physiology; and, lastly, he crowned his success by obtaining the Longridge Prize of £40 for general proficiency.

Upon the late Dr. Harper relinquishing practice in Darlington, he was succeeded by Dr. Clarkson, whose professional reputation and kind and amiable manners soon obtained for him one of the largest practices in the north of England, which, from pure love of his profession, for many years he conducted without any assistance whatever, until at last, from constant hard work, the seeds of that malady were sown which was destined to bring him to a premature grave. Early last year, an attack of pleurisy came on insidiously, and, being neglected, resulted in abscess of the lung. For many months this attack totally incapacitated him; but eventually all urgent symptoms disappeared, and for the last six months he had been able to return to his professional duties. About a fortnight ago, he was seized with an attack of sclerotitis with severe hemieranial pain; but the symptoms were not considered serious by his friend Dr. Charlton of Newcastle, who was at Darlington three days before his death. He was eventually seized with an attack of apoplexy, which terminated fatally in five hours.

Few men possessed a better general knowledge of their profession; none were more anxious to keep up and elevate its dignity; and he was ever ready to render any assistance to his professional brethren. Conscious of the abuses which existed in the management of local affairs in Darlington, he set his whole energy to correct them; and, after many years of labour, he succeeded in doing so. To his perseverance and influence is partly due the grant of a corporation, which the town obtained last year. Naturally disliking anything approaching to display or ostentation, he had often expressed a wish that, at his death, his funeral should be as simple and private as possible; and, although this was attempted to be carried into effect, and not a single invitation was issued, some hundreds of his fellow-townsmen, representing all classes, with about thirty private carriages of the resident gentry, headed by the Mayor and Corporation of the borough, with nearly all the resident practitioners, followed his remains to the cemetery, to pay a last tribute of respect to his memory. He died, as he had lived, respected and admired by all who knew him.

GEORGE KENNION, M.D., F.R.C.P.,

OF HARROGATE.

WE regret much to have to announce the death, at the early age of 54, of Dr. Kennion of Harrogate, which took place on the 29th of last month. The subjoined biographical particulars are derived from the *Harrogate Advertiser*.

Dr. Kennion was born in 1813 in one of the suburbs of London. When he was 12 years of age, his father, having been appointed incumbent of Christ Church, High Harrogate, removed here with his family, of whom the late Dr. George Kennion was the eldest son. After having received an education at some of the best seats of learning, he studied medicine in both Edinburgh and London, where he formed a lasting friendship with some members of his own profession, who have since obtained the highest eminence in the metropolis. He commenced practice in Harrogate at a time when there seemed a favourable opportunity for a promising and enterprising young man. His career from the commencement, in 1840, seemed gradually to brighten before him; and before many years had passed it culminated in the high position in hich death overtook him. Dr. Kennion had for some time, to the ap- arance of his friends at least, been failing in health, but still pursued s arduous duties without intermission, with all the zest of youth and ergy, until at length he was compelled to succumb. Although attended some of the most eminent practitioners of the district, his case became alarming that his son went to London to consult some of the most ninent metropolitan practitioners, with many of whom he was on terms of e warmest friendship. No sooner did Sir William Jenner learn of his iend's dangerous condition than he hastened down to the patient's edside, and on seeing him entertained some faint hopes of his recovery. rom this time his other medical attendants, who were unremitting in eir watchfulness, began to perceive, as they thought, some symptoms f improvement in their patient, but these either proved illusory or trans- ory.

As a medical adviser, the visitors to Harrogate will have sustained a eavy loss by the death of Dr. Kennion, for so high did he stand in the rofessional world that many came hither with the view of obtaining his rofessional advice. And not only as an eminent physician will his loss e felt, but as a citizen, a man of science, a Christian philanthropist, nd a generous and warm-hearted friend. Had Dr. Kennion been a lfish man, a lover of lucre, from the high position he occupied in his rofession, and the extensive practice he had, he might have amassed nmense wealth; but his heart was too generous, and his hand too beral to entertain such sordid motives. As a citizen, Dr. Kennion ight be ranked amongst the most highly esteemed, useful and influential entlemen of Harrogate. For some years he was one of the Improve- ent Commissioners, but finding this to interfere too much with his rofessional duties and his other public engagements, he retired. His hief aim seemed to be centered in raising Harrogate, in a medicinal point f view, to a leading position. No man has done more towards popu- rising the mineral waters of Harrogate than Dr. Kennion. He felt ersuaded that Harrogate had within itself most of the resources for hich the continental spas had become famous. The Kissengen Spring, in Iontpellier Gardens, which has of late years become so famous, owes ery much of its popularity to Dr. Kennion. Previously to his settle- ent in Harrogate, it was almost entirely neglected; but on analysation e discovered it to be one of the most valuable mineral springs in the lace. He always took a deep interest in the progress of the Bath Iospital, and more than a share in its medical duties. Indeed, there is arcely an institution or improvement in the town, whether of a public r private kind, in which he did not feel interested. The last produc- on of Dr. Kennion's pen was a contribution to the BRITISH MEDICAL OURNAL "On the Local Use of Bisulphide of Carbon as a Cure for Ieadache." We had more than once this year recourse to his advice in atters of local professional relations to the public.

The following particulars of the illness and death of Dr. Kennion are bridged from an account drawn up by Dr. Allbutt, Dr. Beaumont, and Ir. Bainbridge. With the exception of two severe attacks of gout in e toe, and of wandering gouty pains for a few weeks before his last lness, Dr. Kennion was a vigorous and healthy man. On the 19th of une he was seized by a sudden and intense pain in the region of the all-duct. This continued, though gradually diminishing, for five ours; and, after the hypodermic injection of morphia, he passed a lerable night. Dr. Kennion continued to go about the next day; yet ere remained, or rather recurred, a pain in the right hypochondrium, ith uneasiness. On June 20th he became feverish and nauseated, and omplained of a good deal of pain in the right hypochondrium. He as now compelled to keep his bed, and was seen by Mr. F. Bainbridge, nd afterwards (on the 22nd) by Dr. Beaumont, of Knaresborough. On e 21st Dr. Clifford Allbutt, of Leeds, was telegraphed for. A small atch of pleuro-pneumonia was found quite at the base of the right lung. he skin and conjunctivæ were slightly jaundiced, the tongue coated, he stomach uneasy, the pulse 110, and the temperature 100 deg. He ad himself taken a full dose of calomel two days before; so the bowels ere kept quiet, and morphia injected at intervals. In two days the neumonia was nearly gone; but there seemed still to be inflammation f the peritoneal coat of the liver, with tenderness, slight jaundice, etc. n the 22nd the sickness became incessant, and the abdomen was ightly tympanitic. There had been no movement of the bowels; and veral large and stimulating injections were given. Next day the owels were relieved; and on the 24th the patient appeared to be much nproved. Towards the end of the day, however, and on the 25th the ulse rose and became compressible, the body became again distended nd painful, and vomiting and hiccough being distressing. Dulness d pain on deep pressure were also noted over the ileo-cæcal region. he temperature which had fallen with the cessation of the pleuro- neumonia remained throughout at about 98 deg. It was now deter- ined to seek the help of Sir William Jenner, who with kind promptitude came down at once. He saw Dr. Kennion on the evening of June 25th, and again the next morning, with Dr. Allbutt, Dr. Beaumont, and Mr. Bainbridge. It was too clear that the bowel was paralysed; but the cause was obscure. Looking at the symptoms as they stood, Sir William Jenner supported Dr. Kennion's advisers in a somewhat hopeful prognosis. The abdominal distension was great, but not excessive; the vomiting had receded a very little, and was never really stercoraceous. Some sleep was obtainable, the pulse was of fair strength and never very rapid, and there was no marked pinching of the features, or symptoms of serious exhaustion. It was determined to carry on the method already pursued: rest to the bowels; injections of morphia; and administration, when possible, of some quantities of nutriment, however small. A decided amendment set in on the 26th and 27th. The vomiting gave way, and some food was well taken; the pulse recovered; the body softened; the dulness and pain disappeared from the cæcal region; wind was passed, also a few scybala; and the jaundiced tint faded. On June 27th, after a very comfortable day, he passed a fæcal motion, with a quantity of yellowish-brown bilious fluid, with apparent relief; but about twenty minutes after this he felt collapse. There was no pain. Notwithstanding assiduous care on the part of Dr. Beaumont, Mr. Bainbridge, and Dr. Allbutt, he died in five or six hours from the first appearance of collapse.

The autopsy was made by Mr. Houseman, in the presence of Dr. Allbutt, Dr. Beaumont, Mr. Bainbridge, and Mr. Scaife. On laying back the abdominal walls the surface of the bowel was seen to be a good deal injected, and the right half of the omentum seemed as if stained with blood. That part of the transverse colon which lies below the liver was bound down to the posterior and right walls and to the under parts of the liver and gall-bladder by old and firm adhesions. There were also a few small new patches of adhesion. Between the gall-bladder and the colon were several channels bounded by the old bands of adventitious tissue, and these channels communicated so as to form an anfractuous cavity. They were filled with a strongly bilious fluid, which appeared also to consist of serum and an unhealthy mucoid or blenorrhagic secretion. The cavity communicated by three openings with—1, the under surface of the gall-bladder; 2, the colon; 3, the peritoneal cavity. In the gall-bladder and in the peritoneum were a few drachms of the same bilious fluid, which also corresponded with that passed in the last motion. The liver was healthy, with the exception of the adhesions and marks of recent inflammation on the under and posterior surfaces. The neighbouring diaphragm was injected, and showed traces of serous inflammation. The gall-ducts and all other abdominal organs were healthy; but the colon was much distended in the ascending portion and in the cæcum. No gall-stones were found. The inner edges of the opening into the gall-bladder were slightly thickened, and resembled a gastric ulcer.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on July 14th; and, when eligible, will be admitted to the pass examination:—

W. L. King, J. S. Sherratt, W. J. Palmer, C. W. Price, John Tweedy, R. L. Verley, George Wilson, R. T. Smith, and Sydney Parsons (Students of University College); Richard Wood, George Barraclough, T. G. Lidbetter, M. T. Kavanaugh, Philip Thornton, Shirley Murphy, J. W. Phillips, and A. R. Manley (of Guy's Hospital); Richard Aubrey, Edmund Durant, and Frederic Howse (of Charing Cross Hospital); J. A. Harris and R. W. Dodds (of Edinburgh); W. D. Hutchings and J. E. Shaw (of Bristol); W. A. Satchell (of St. Mary's Hospital); J. J. Power (of Dublin); Alfred Dickinson (of the Westminster Hospital); E. S. Warburton (of Liverpool); W. M. King (of St. Bartholomew's Hospital); and W. L. Roberts (of Glasgow).

The following gentleman passed on July 15th:—

Ezra Harle, Isidore Lyons, R. J. Hutton, W. H. Latham, T. S. W. Baringer, Adam Young, and W. H. Evans (Students of St. Bartholomew's Hospital); W. H. Heygate, G. A. Hull, Horace Turner, Samuel Evans, and L. K. Times (of University College Hospital); G. T. Martyn and James Chatterton (of Dublin); T. E. Image (of Edinburgh); R. E. Vervill (of Leeds); William Greaves (of Guy's Hospital); Richmond Leigh (of Liverpool); and H. B. Hawkins (of St. George's Hospital).

It is stated that no less than 23 candidates out of the 72 examined on the above days, were referred to their anatomical and physiological studies for a period of three months.—The last *pass* or surgical and pathological examination for the diploma of membership for the present session, will take place this day (Saturday).

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 9th, 1868.

Austin, Sydney Charles, Luton, Bedfordshire

Bell, Alfred James, Preston
Calthrop, Christopher William, 62, Margaret Street, W.
Cox, Edgar, Maiden Newton, Dorset
Graves, Alfred Burgess, Birmingham
Sleightholme, John Pennock, Whitby

At the same Court, the following passed the first examination.

Laws, Frederick John, St. Mary's Hospital
Preston, Theodore Julian, St. Mary's Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

ARDWICK and ANCOATS DISPENSARY, Manchester—House-Surgeon.
BANDON UNION, co. Cork—Medical Officer for the Innishannon Dispensary District.
BARNSTAPLE UNION—Medical Officer for District No. 11.
BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
CLIFDEN UNION—Medical Officer for the Roundstone Dispensary District.
COWGATE DISPENSARY, Edinburgh—Resident Physician.
DERBY UNION—Medical Officer for District No. 1.
DORSET COUNTY HOSPITAL, Dorchester—Two Surgeons.
DUBLIN, TRINITY COLLEGE—King's Professor of the Practice of Medicine.
DUDLEY DISPENSARY—Resident Medical Officer.
DUKE OF DEVONSHIRE LODGE, National Independent Order of Odd Fellows, Salford—Surgeon.
GLOUCESTER COUNTY LUNATIC ASYLUM, Wotton—Assistant Medical Officer.
HOSPITAL FOR WOMEN, Soho Square—Assistant-Physician.
ISLINGTON DISPENSARY—Physician.
LEITH HOSPITAL—House-Surgeon.
LICHFIELD UNION—Medical Officer for the Alrewas District.
LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE—Lecturer on Dental Mechanics.
MACCLESFIELD DISPENSARY—House-Surgeon.
MAIDSTONE UNION—Medical Officer for the Workhouse at Linton; Medical Officer for District No. 5.
MEDWAY UNION—Medical Officer for No. 3 or Gillingham District.
MELKSHAM UNION—Medical Officer for the Seend District.
NORTHAMPTON GENERAL DISPENSARY—Assistant to the House-Surgeon.
NORTHERN HOSPITAL, Liverpool—House-Surgeon.
NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh—Assistant Medical Officer.
QUEEN'S HOSPITAL, Birmingham—Resident Secretary and General Superintendent.
ROYAL FREE HOSPITAL—House-Surgeon.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician; Assistant-Physician.
ROYAL INFIRMARY and DISPENSARY, Dundee—Assistant Medical Superintendent.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
ST. GILES and St. GEORGE, Bloomsbury, Parishes of—Resident Assistant Medical Officer.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Physician; Physician-Accoucheur.
ST. MARY'S HOSPITAL, Paddington—Lecturer on Chemistry.
ST. MARYLEBONE GENERAL DISPENSARY—Physician; Surgeon.
ST. PANCRAS and NORTHERN DISPENSARY—Physician.
SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Physician.
TAUNTON UNION—Medical Officer, Bishop's Lydeard District.
THINGOE UNION, Bury St. Edmunds—Medical Officer for District No. 7.
TRINITY COLLEGE, Glenalmond—Resident Medical Officer.
WESTMINSTER GENERAL DISPENSARY, Gerard Street, Soho—Two Physicians.

MEDICAL APPOINTMENT.

*Argles, Frank, L.R.C.P.Ed., appointed Medical Officer of Health for the Wanstead District; and Medical Officer to the Weavers' Alms Houses, Wanstead, *vice* F. Collins, M.D.

BIRTHS.

Adams.—On July 9th, at Harrington Square, the wife of *William Adams, Esq., Surgeon, prematurely, of a daughter, stillborn.

Barnes.—On July 9th, at Ewell, Surrey, the wife of G. R. Barnes, M.D., of a son.

Bogg.—On July 7th, at Trusthorpe, Lincolnshire, the wife of E. B. Bogg, M.D., R.N., prematurely, of a son, stillborn.

Gardner.—On July 5th, at Ilfracombe, the wife of *F. Gardner, M.R.C.S. and L.S.A., of a daughter.

Goss.—On June 17th, at 37, the Paragon, Bath, the wife of *T. Biddulph Goss, Esq., Surgeon, of a daughter.

Lang.—On June 19th, at Southport, the wife of *John Lang, M.D., of a daughter.

Hastings.—On June 13th, at Queen Anne Street, the wife of Cecil Hastings, M.B., of a son.

Steele.—On July 12th, at Guy's Hospital, the wife of John C. Steele, M.D., of a daughter.

MARRIAGES.

Bell, John T., Esq., of Herne Hill, Surrey, to Anne Mary, second daughter of David C. Noel, L.R.C.P.Ed., of Upper Tooting, on July 8th.

*Buchanan, George, M.A., M.D., Glasgow, to Agnes, third daughter of the late James Douglas, Esq., Perth, on July 7th.

Seaton, Daniel, Esq., Surgeon, of Oakham, to Mary Caroline, elder daughter of H. R. Wiseman, Esq., of Cambridge, on July 9th.

Sutcliff, Edward, M.D., of Wandsworth, to Fanny Elizabeth, eldest surviving daughter of George Levey, Esq., of Camberwell Grove, on July 9th.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

We cannot undertake to return Manuscripts not used.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

An Inquiry.—Sir: Permit me to ask if any of your readers can give any information respecting the Missisquoi A Springs in Vermont, United States, said to cure cancer?—H. H.

Chemical Promotions.—The *Chemical News* is misinformed on the subject of its note to our recent paragraph on chemical promotions, which it quotes. There are many eminent candidates for the Chemical Chair at St. Mary's Hospital, of whom Dr. Russell, of University College, is one; but the *Chemical News* is not in any way authorised to dispose of that chair to one of the many candidates before the vacancy is even declared. We may add that, in regard to the Royal Institution, we have reason to believe that Dr. Frankland has actually resigned his position at the laboratory, and that Dr. Odling is appointed in his room. As we stated last week, he is also appointed Fullerian Professor of Chemistry at the Institution, in succession to Faraday.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Merthyr Telegraph, July 4th; The Marylebone Mercury, July 11th; The North Devon Advertiser, July 10th; The North Devon Journal, July 9th; The Sheffield Daily Telegraph, July 7th; The Indian Medical Gazette, June 1st; The Wigton Advertiser, July 11th; The Liverpool Daily Courier, July 13th; The Belfast News-Letter, July 11th; The Cheshire Advertiser, July 11th; The Newcastle Daily Journal, July 9th, 10th, and 11th; The Manchester Courier, July 13th; The Newcastle Daily Chronicle, July 13th; The Durham Chronicle, July 10th.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. M. Bryan, Northampton; Mr. Constable, Cambridge; Mr. Jukes Styrap, Shrewsbury; Dr. Cantrell, Wirksworth; Mr. Daniel Hooper, London; Dr. Reith, Aberdeen; Dr. Pearson, London; Mr. H. Jobling, Ventnor; Dr. A. H. Bartlet, Ipswich; Mr. E. N. Smith, London; Mr. F. Gardner, Ilfracombe; The Registrar of the Liverpool Royal Infirmary School of Medicine; Mr. S. Drew, Chapeltown, Sheffield; Mr. W. Druce, Oxford; Dr. Falconer, Bath; Mr. Allbutt, Leeds; Mr. Dobson, Bristol; F. H. H.; Mr. H. G. Davies, Cheltenham; Dr. M. T. Masters, London; Dr. J. B. Pitt, Norwich; Mr. G. C. Coles, London; Dr. Hastings, Brixton; Dr. G. Hill, Hooton, Chester; Mr. John Taylor, Ticehurst; Dr. George Johnson, London; Dr. A. P. Stewart, London; Mr. Spencer Wells, London; Mr. E. Chapman, Oxford; Dr. Lionel Beale, London; Mr. Skey, London; Dr. Hyde Salter, London; Dr. Septimus Gibbon, London; Dr. Argles, Wanstead; Dr. W. A. Morris, Darlington; Mr. G. Wood, London; and Dr. J. D. Heaton Leeds.

LETTERS, etc. (with enclosures) from:—

Sir Thomas Watson, London; Mr. F. Le Gros Clark, London; Mr. Isaac Ashe, Warrenpoint; Mr. G. M. Stansfeld, Bristol; Dr. Crisp, London; Mr. Spencer Watson, London; Dr. Baümler, London; Dr. Paget, Cambridge; Mr. T. Sympson, Lincoln; The Secretary of Apothecaries' Hall; Dr. John Murray, London; Mr. Holloway, London; The Registrar-General of England; Mr. T. M. Stone, London; Mr. St. George Mivart, London; The Registrar-General of Ireland; Dr. Rutherford, Edinburgh; Dr. E. Andrew, Shrewsbury; Mr. B. Baker, Brentwood; Dr. John Brunton, London; C. C.; Dr. Lory Marsh, Nottingham; Dr. Patrick Downey, Sileby, Loughborough; Dr. John Lang, Southport; Dr. John C. Reid, Newbiggin-by-Sea; Mr. R. B. Ruddock, Clifton; Mr. D. Kent Jones, Beaumaris; B., Belfast; Dr. Mead, Newmarket; Medicus; Dr. Wm. Strange, Worcester; Dr. H. Barnes, Carlisle; Dr. Joseph Rogers, London; Dr. Mapother, Dublin; Mr. R. S. Fowler, Bath; Mr. Jonathan Hutchinson, London; Mr. G. Weller, London; A Former House-Surgeon of the Royal Free Hospital; Mr. E. G. Clarke, Mold: and Dr. A. Miller, Edinburgh.

LECTURES

ON THE

PRINCIPLES OF SURGICAL DIAGNOSIS:

ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

By F. LE GROS CLARK, F.R.C.S.,
Surgeon to St. Thomas's Hospital, and Examiner in Surgery in the University of London.

LECTURE II.—*Concluded.*

Symptoms and Signs.—Antecedent Condition of Patient: his Habits, Temperament, and Occupation.—Exciting Causes of Injury or Disease.—Existing Subjective and Objective Indications.—Signs, Certain, Equivocal, Negative, and Accidental.—Sources of Obscurity and Fallacy.—Functions of Animal and Organic Life.—Intellect, Expression, Colour, Volition, Sensation, Excito-motor Phenomena—Rigor, Specific Sensation.

THE many functions of animal and organic life are variously influenced in maladies which it is the lot of the surgeon to treat; those which are under the influence of the cerebro-spinal nerve-centre more directly, and those over which the cyclo-ganglionic system presides more indirectly. Disturbance of the assimilative functions, in some of its varied forms, is commonly present in any local lesion which is of sufficient importance to produce a constitutional impression; and for the purpose of correctly interpreting these deviations from a healthy standard, it behoves the surgeon to have acquired familiarity with many details in diagnosis, which it was formerly too much the custom to regard as the special province, if not the exclusive privilege, of the physician to expound. The tongue, the pulse, the state of the excretions, all afford invaluable assistance to the surgeon in diagnosis, and, therefore, in treatment; and where it is needed no trouble should be spared, no means of investigation should be considered beneath his careful attention, in order to elicit the requisite information to guide him in forming an opinion. Chemical analysis, especially of the urine, will throw invaluable light on many symptoms which are otherwise inexplicable, and where there are no other more direct means of learning that the kidney or bladder is the seat of functional disturbance or even organic change. And where chemistry fails, the microscope, with its simple lenses, or its polarising arrangement, will supply the required information. The varying development of heat, as tested by the self-registering thermometer, has a significance which requires only the accumulation of facts, statistically arranged, to constitute a far more valuable guide in diagnosis, than is the case in the present limited state of our knowledge on this subject. It is not because the testimony we obtain from this source is, in some nstances, apparently contradictory, that we are justified in disparaging ts value; such, as I remarked in my last lecture, is often the case in the arly steps of scientific investigation; and it is not unfrequently the most unpromising plant, that which requires most jealous watching and most careful tending, which ultimately bears the fairest and the ichest fruit.

The state of the *Circulation*, as tested by the pulse and by listening o the beating of the heart, is too important to need a comment. Yet, many precautions are needed, many influencing conditions are to be al-owed for, and many accidental circumstances taken into consideration, n estimating the value of the pulse in diagnosis. In some individuals he normal standard is low in frequency, in others high; or the power may be feeble, or the natural pulse strong and full; and these conditions re by no means determined by the general physical development, nor ven by the ordinary health of the individual, whether weakly or robust. gain, the nervous excitability of one patient, or the stolid indifference f another, necessarily introduces a discordant element into a source of nformation which we would willingly have precise. Further, the rgeon will not forget the anatomical lesson he has learned in the dis-ecting-room, that deviations in arterial distribution may, if overlooked, ad to serious error in testing the pulse at the wrist. For these and her reasons, I think the functional derangements of the circulation ust be accepted, in many instances, with the allowance of a consider-ble discount for possible sources of fallacy, and consequent misdirection. he same remark applies with similar and even greater force to the act *Respiration, i.e.,* apart from the stethoscopic examination of the lungs. is from the persistence of an abnormal standard in these functions that derive the most valuable information; especially when the conclusions which we draw from such condition are fortified by collateral evidence of another kind.

Of the *Tongue*, as the index of functional changes which are otherwise hidden from our ken, I entertain a very different estimate. This little member rarely deceives the intelligent inquirer; I mean by its *silent* response to his queries. It tells its simple tale truly; and on its face we may read with certainty not only the day to day variations of our patient, but full often his approaching end. I would trust the tongue, if it gave me encouragement, when almost all beside might seem to forbid hope; and I should know that its glazed and brown surface tell more plainly than the parched member could articulate, that food is useless, the chemistry of organic life is at fault, nourishment has ceased, and that dissolution is near at hand.

Turning from these organic functions, which are under the guidance of the cyclo-ganglionic system, we will now contemplate briefly other functions which are controlled by the cerebro-spinal centre of nerve-power. Under this head we have to consider the intellectual faculties, voluntary movement, common and specific sensation, and likewise the excito-motor movements which are associated with the spinal cord as their source or centre.

In the deviations of these organs from a healthy condition the surgeon is deeply interested; and especially so in the direct appeals which are made to them in accidental lesions from violence. In a future lecture I shall have occasion to illustrate this subject somewhat fully; at present I shall confine myself to noticing the indirect influence exercised on the nervous centres, as exemplified in the aberration of these functions from a normal standard.

Wandering of the *Intellect* occurs in a variety of circumstances; and, as a casual occurrence or taken *per se*, it is not to be trusted with any confidence as a diagnostic symptom. Not unfrequently I have known temporary delirium to occur after an operation, without being accompanied or followed by any circumstance to create anxiety. This may be the result of mental reaction after much tension or subdued feeling; it may be the consequence of wakeful watching, or the effect of the anodyne administered to relieve it. It is rarely produced by pain, unless long continued and severe; but it often supervenes in extreme feebleness and exhaustion, whether from hæmorrhage, profuse suppuration, or any other source of depression of the vital powers.

Yet, though often deceptive by itself, when viewed in connection with other circumstances, it is frequently a very alarming symptom. When accompanied by a calm and even pulse and a clean tongue, we know that the wildest delirium is the offspring of nervous irritation, and not of inflammation. But when associated with other indications of febrile excitement, anxiety is naturally aroused; and if, further, such disturbance is consequent on some injury to the head or spine, we have little room left to doubt that the nervous centres or their membranes are the seat of inflammation.

The delirium of nervous excitement—nervous delirium—and that of drunkards, delirium tremens, or, as a critical scholar and physician under whom I studied medicine used to term it, *delirium cum tremore*,—have much in common. Indeed, it has been denied by many surgeons, amongst whom is Dupuytren, that they are distinguishable. Probably this is altogether so in many cases; the quiet pulse, the clean tongue, the excited talk, the restlessness, the profuse sweating, are characteristic of both; but the tremor is more uniformly present in one than in the other; there is not sufficient difference, perhaps, to constitute this a diagnostic distinction between them; but still tremor is rarely absent in the drunkard's delirium, and not unfrequently so in the subject of nervous delirium. Perhaps I should express myself more accurately by terming the latter *agitation*, the former *tremor*. Each is attended by a remarkable insensibility to pain.

There is a close analogy, if not identity, between the delirium and other symptoms which attend the later stages of an exhaustive disease, such as gangrene, and that which is the sequel of typhus or typhoid fever. Is this wandering of the intellect the consequence of a specific poison circulating in the brain, or simply indicative of the declining powers of life, and the presence in the blood of the uneliminated products of organic conversion? Probably the latter, when unattended by excitement, and of that low muttering form which babbles incoherently of things long forgotten, and unintelligible to, or unheeded by, the bedside watcher. Misguided by the failing senses, the hands wander forth in quest of imaginary objects; and the poor wrecked intellect is busied with its own suggestions, as life ebbs away and leaves it stranded on the confines of eternity.

Here, as the fittest opportunity, I will introduce a few remarks on *Expression*, in attitude and feature, as an adjunct in surgical diagnosis. I say in attitude as well as feature; because in the former there is often much which is expressive of pain or ease, and also of the character of the suffering. The mode in which the arm is carried in axillary dislocation; the position of the outstretched leg in luxation into the thyroid foramen; the drawn-up knees in peritonitis; the uplifted arms in dyspnœa; the curving spasm of tetanus; the retracted limb in knee and hip disease, are all more or less characteristic of the maladies with which they are allied. Again, how much expression is there in the restless tossing to and fro of the nervously-excited patient, and in the languid, extended and flaccid limbs, and outspread hands of the worn-out sufferer. The hypocrite is sensible of the influence of posture in imposing upon the credulous and uninitiated; and the imitative faculty of hysteria in this respect is often such as to deceive even those who are alive to its Protean characteristics. Freedom from pain is expressed by an easy and unconstrained attitude, which may be detected even in the recumbent posture. I remember, among the many anecdotes which he used to gratify me by telling of his uncle, that Mr. Bransby Cooper said Sir Astley always augured favourably of a patient, who received his visit to his bedroom with his hands clasped behind his head. I have often verified the correctness of this diagnostic sign of ease of body, as well, generally, as of mental quietude. It is scarcely necessary to add that the surgeon's knowledge and sagacity should supply him with a ready tact in convicting an impostor of assuming an attitude which is inconsistent with the malady he wishes to affect; the detection of fraud may often be accomplished in this way.

In the *Face*, as the index of the mind and feelings, we have a guide on which, when allowed to tell its own tale, we may place much reliance. We are all, naturally, physiognomists; and our ability in reading expression is sharpened by contact with the world; but more truly so by familiarity with disease and suffering. In the intercourse of society, good breeding requires that the facial expression should be under control; though, I fear that, from selfish motives, the features are too often made to subserve the purposes attributed by Talleyrand to words, viz., that of concealing ideas. But, in the sick room, human nature is stripped of this mask, and physiognomy may be studied usually without such fear of deception. Each feature has its own peculiar language, but the meaning is generally more intelligible in their combined expression than when they are studied separately.

The tint or colour of the skin is, especially in our climate, often though not invariably a measure of the state of health; more so, however, in youth than in the middle period of life or in old age. But the normal diversity of tint is so manifold, that it behoves the practitioner to be cautious as to the inferences he may draw therefrom. To the surgeon the information drawn from this source is of far less value than to the physician, in special diagnosis. To the latter, the yellow tint of jaundice, the blue colour of cyanosis, the copper dye in suprarenal disease, and the ashy hue in ague, are characteristic signs, severally, of these various maladies. It is said, indeed, that there is a peculiar tint of skin allied with malignant disease: but its frequent absence deprives it of its worth. Not unfrequently disease of unequivocally malignant type is associated with a healthy complexion and well-nourished frame.

On the aspect and the expression of the features in disease much might be written; it is a prolific subject, and yet one which, in its bearing on diagnosis, it is difficult to reduce to system and rule. The expression which betrays various degrees of pain is familiar to all observers; indeed, it is intuitively known and understood. But it may be, and is, easily simulated, for the purpose of eliciting sympathy, or of extorting admiration for fortitude shown. Yet, there is a silent utterance in the compressed mouth, dilated nostril, and upturned eye of genuine suffering, which makes a more forcible appeal than the violent distortion of feature which is indulged in or assumed.

The expression of the face may aid the surgeon in his diagnosis, when taken in conjunction with other signs or symptoms. Such are the crimson spot of hectic, the pinched features of peritonitis, and the peculiar but indescribable combination of anxiety and vacancy in shock. How anxiously does he look for any evidence of loss of symmetry in the face of a sufferer from head-injury; and often the first look of greeting cheers or depresses him in regard to the improvement or retrogression of his patient, whatever may be the disease of which he is a victim. I shall have occasion again to refer to this subject; and will, therefore, leave it with this cursory notice, and proceed to comment upon some other functions allied with the cerebro-spinal nerve-centres.

The exercise of *Volition*, as evinced in muscular movements, is liable to be influenced by any cause which is operative upon the nerve-centre from which it derives its power. Such influence may be transient or persistent, local or general, the consequence of functional sympathy or of organic lesion; or, lastly, it may be due to some cause operating on the brain, or on some intermediate part of the nerve-communication between that centre and the paralysed muscles. The state showing this disturbance varies in intensity from partial to entire loss of power; or it may include the signs of irritation—local or general spasm. Further, there are accidental circumstances relating to lapse of time or to special seat of injury and treatment, which materially modify these conditions both in degree and character; but of them I shall have to speak more especially in my next lecture, and, therefore, I will defer any further observations on this subject until then.

The phenomena witnessed in association with the true spinal centre and the excito-motor system of nerves are deeply interesting and of great significance in the diagnosis of surgical as well as medical disease. They are essentially distinct from, though often complicated and sometimes confused with, those referable to the encephalic centre; and they are elicited by motive causes acting upon the cord itself, or upon the peripheral distribution of the nerves. The fact that the phenomena in question are, in some instances, more pronounced or more apparent when the cerebral functions are interfered with or in part suspended, enhances their interest and value in the diagnosis of brain or spinal injury; and the recognition of the special functions of this system, and their alliance with the cord as their centre or source, in some part (not yet identified) of its complex structure, has led to an accuracy in diagnosis, which has already borne ample fruit in the treatment of disease, and still offers a field for further investigation, which has been and continues to be successfully cultivated by the physiologist, the anatomist, and the practical physician and surgeon. It would be invidious to attempt to enumerate the many labourers in this deeply interesting field of science: but I may be permitted to mention Sir Charles Bell, as the pioneer of this century; Marshall Hall, whose name is imperishably associated with these discoveries; Brown-Séquard; and Lockhart Clarke, who is still prosecuting his admirable and fruitful investigations in this delicate branch of histology.

Local or partial morbid manifestations of excito-motor phenomena are of frequent occurrence, and may be occasioned by trivial causes, acting directly upon distant organs, and mediately or by sympathy upon the true spinal centre. The varying and doubtful character of the exciting cause in determining an uncertain result, deprives these pathological indications of much of their diagnostic value; but where the characteristic spasm extends more generally throughout the frame, the source is, or becomes by transfer, more directly central; as in tetanus, chorea, epilepsy, and hysteria. In some instances there seems to be reason for believing that persistent general symptoms are due to organic change in the cord itself, by transfer of irritation from the wounded periphera of a nerve. I have been favoured with a view of some preparations of Mr. Lockhart Clarke, which appear to demonstrate this fact, and to which I may again refer in a future lecture. In spinal lesions from violence there can be no doubt that such is the case. Partial and limited damage of the cord may produce involuntary spasm; and organic change following injury may develope tonic spasm or rigidity of the limbs after volition and sensation are suspended.

Rigor is an excito-motor expression, often of great value, in diagnosis, to the surgeon. But its full significance is elicited only by association with other symptoms; by itself, the most severe rigor may denote nothing more than the response to a transient appeal which has been made to the sentient extremities of the excito-motor nerves; as, for instance, by the introduction of a cathetor into the bladder, or by the passage of a renal calculus along the ureter. Rigor may be due to cold applied to the surface of the body, to some depressing mental influence, or to miasmatic exhalation when it assumes an intermittent type. It is found to occur, indeed, in all forms of blood-poisoning, and in vital inflammations, which are allied in many of their phenomena, though unintelligibly so in their cause, with toxæmia. But, when associated with symptoms which are suggestive of suppuration, the critical rigor marks the period often with unerring accuracy; or this indication of the formation of pus may, from the obscurity of the case, be the first symptom to arouse suspicion as to its true nature. Probably under no circumstances does the operating surgeon look with more alarm on this symptom, than when allied with an accelerated pulse, a hot skin, and profuse perspiration, under circumstances which induce him to apprehend the occurrence of pyæmia. Rigor is so usual—I may say so constant—an event as ushering in this fatal malady, that, although its presence may not be accepted as conclusively diagnostic, in combination with other indications, of the disease, yet the absence of this symptom may induce the surgeon to be hopeful, even when the condition of the patient might otherwise excite great anxiety.

Many circumstances indicate an affinity between rigor and other convulsive affections, such as epilepsy and the convulsive stage of shock. It is not unnatural there should be this relationship, as the spinal centre is appealed to in all, the points of difference being in degree of intensity or duration, and in the fact that the encephalic centre is involved in the severer forms of epileptic convulsion. An interesting phenomenon connected with these conditions is the variation of temperature in the different stages. Rigor is marked by a rise in temperature, and in the subsequent stage of sweating it falls, in some instances, below the normal standard. What may be the proximate cause of these changes, so entirely at variance with the feelings of the patient, is matter of conjecture. Dr. Johnson, in some interesting observations on this subject, remarks that probably the sympathetic plays an important part, by its influence on the muscular contractility of the capillaries; and that there seems reason for believing that in rigor there is an anæmic condition of the cord; and, in epilepsy, also an anæmic condition of the brain. Of epileptiform convulsion, in association with injury of the spine or head, I shall have to speak hereafter.

The information to be derived from the various states of *Sensibility* or common sensation is very similar to that which is acquired from the allied function, as regards its cerebral source, of motor power. As in the latter, so in the former, the cause of disturbance may be transient or local, or it may be such as to entail permanently suspended function over a considerable portion of the frame. The frequent coincidence of symptoms, indicating simultaneous derangement of the exercise of voluntary power and of sensibility, is accounted for by the anatomical relations of the centres of nervous influence, and of their prolongations in the spinal canal. I shall return to this subject in a future lecture; but there are certain conditions associated with common sensation, which it will be well to examine at the present time, as they have a more general application than in their special relation to the lesions of the nervous centres.

I have already remarked that intoxication has the effect of lowering the sensibility by its direct influence on the brain. I have observed a similar condition in severe shock, and apparently from the same cause. Loss of blood does not induce this effect, unless complicated with shock, or to such an extent as to cause faintness. Hysteria influences sensibility in various ways; in some instances suspending it for a time entirely, in others exalting it locally, and even generally. Depressed sensibility is, therefore, an equivocal diagnostic symptom, which may be interpreted in a variety of ways, and requires to be used with caution. But when the tactile insensibility of any part is complete and persistent, without evidence of nerve-lesion, the indication is much more definite, and denotes, as the case may be, pressure on, or disorganisation in, some portion of the encephalic centre, or of the spinal cord. Transient paraplegia may result from shock to the cord; but this symptom, under those circumstances, is limited in duration, and has no tendency to increase; extension upwards of the loss of sensibility is a fatal indication of organic or vascular lesion.

Localised tactile insensibility is indicative of pressure upon the supplying nerve, or of some interference, material or functional, with the nerve-centre from which it springs. But the motor nerve of the face is more obnoxious to such lesion than any of the sensitive nerves passing out of the skull; it is frequently paralysed by injury or disease of the petrous bone, or by the pressure of a tumour in the parotid gland. Under hese circumstances this symptom is diagnostic; but it should be re-nembered that the facial nerve is also liable to functional paralysis rom cold.

Hyperæsthesia, or exalted sensibility to touch, is to be distinguished rom pain. It has a certain analogy to spasm or rigidity in muscles, nd is often due to the same cause, viz., some irritating agent applied o the nerve-centre. This is sometimes sympathetic, as in the tender-ess, as well as pain, referred to the knee in hip-disease. The presence f simple tumours is sometimes accompanied by remarkable sensitive-ess,—as great as, or even in excess of, that which attends malignant rowth; and, therefore, this symptom cannot be regarded as diagnostic f the nature of a tumour, but rather, in many instances, of a preter-aturally susceptible nervous system. There is a rare form of skin-umour, of which I have met with some few examples; it is usually very ery small, and remarkable sensitiveness is its chief characteristic. I emember removing one from a lady's thigh, which was the seat of such xquisite sensibility, that it was a source of almost constant suffering to er; yet this tumour scarcely exceeded a barleycorn in size.

The feeling of heat or chill is a modification of common sensation, hich has nothing to do with the actual temperature of the body; in-eed, as I just now remarked, a sense of chill is often accompanied by a se in the thermometer, and the converse is also the case. The occur-nce of these alternations in sensation is indicative of a disturbing use, usually affecting both nervous and circulating systems apparently multaneously. This condition often precedes rigor, and introduces ver. The sense of chill is to rigor what the epileptic *aura* is to the nvulsive fit—the premonitory symptom of the true convulsion, or, it ay be, its mild and transient representative. As a diagnostic symp-m, this sensation is too inconstant to be of value, and it is often unim-rtant by itself, though deserving attention in concert with other symp-ms, when we are seeking to clear up some obscurity in a perplexing se.

The nerves of *Specific Sensation* evince, in their various deviations from a normal standard and a healthy condition, different states of disease in the organs themselves, which it is not my intention, as it would be beside my purpose, now to discuss. Unquestionably these morbid changes are of infinite importance in the diagnosis of these special diseases, yet it would not subserve any good purpose that I should simply enumerate them; but they are also indicative or symptomatic of other diseases, and this circumstance imparts to them an interest and significance quite independent of the special affection of the organ implicated.

With a few remarks I have still to make on this subject, I shall close the present lecture, and resume the thread of these general observations in the next.

The insensibility or morbid sensitiveness of the *eye* to light are, when not due to any local cause, indicative of cerebral disturbance. This is the case likewise with the other senses; yet this disturbance is not necessarily an organic lesion, or, if so, it may elude our scrutiny. This remark applies rather to increased sensitiveness than to dulness or loss of perception. Indeed, the former condition is closely allied with that hyperæsthetic state of which I have already spoken, as sometimes existing in the nerves of common sensation, and it is frequently met with, and diagnostic of, similar morbid changes. Yet, since writing the above, I have met with a singular instance of temporary suspension of sensitiveness existing in the retina, or, more probably, in the perceptive organ in the brain. A youth, who had fallen on his head, was admitted, with slight concussion, into the hospital. His most marked symptom was total loss of vision; he could not even perceive light. This condition was very transient; in half an hour he could just detect the presence of my fingers when interposed between his eyes and the bright day-light, and in the course of another hour he had recovered natural vision. He made a speedy recovery.

The foregoing remarks are equally applicable to corresponding conditions of the organ of *hearing*, but with this reserve: that, in diagnosis, the latter is less to be depended on, because the morbid changes to which it is liable are more occult, and therefore cannot be referred with the same certainty to a local or cerebral origin. In the details of these functional or organic derangements, there is a close analogy between the two organs. The flitting motes, the dancing sparks, or the flashing light of varied colour, and the low, humming murmur, the continuous rush, or the intermittent tinkle, as of the sheep-bell on the hill-side, and other similar conceits of sight and sound, mark these derangements, though generally with too much obscurity to be surely identified with their origin. It is not infrequent in certain cerebral conditions, and under the deceptive prompting of the distempered sense, for the imagination to frame, out of these fictions, definite sights and sounds. There can be little doubt that such is the case in delirium, especially that of drunkards; and in the dying, these impressions assume a character in accordance with the habits, or, it may be, the hopes or fears of him who is about to sleep the sleep of death. The arms of lost and loved friends seem to be extended, in waiting attitude, to receive the spirit which is struggling for its release; or the averted eye and horror-struck countenance may be in unison with the exclamations which betray the terror occasioned by the imaginary sight of the emissaries of torture. The recurring boom, as of a distant church-bell, will conjure up the vision of the impending funeral procession, or the ideal sound of soothing music may light up the dying countenance with placid hope. As with the eye, so with the ear, a morbid sensibility to sounds denotes increased sensitiveness in the perceptive organ, and usually indicates cerebral excitement; dulness of hearing or absolute deafness is valuable in diagnosis only in connection with other circumstances. It may indicate suppuration within the petrous bone or fracture at that part, when associated with paralysis of the facial nerve. When separately affected, the mischief may be cerebral, or it may exist in the auditory passage or drum. I have known deafness to precede suppuration of the mastoid cells, and in another case necrosis of the squamous portion of the temporal bone, the duration of the affection being too long to ascribe it to obstruction in the external canal; in company with complete blindness of one eye, I have known deafness to supervene on paraplegia following injury to the lumbar spine.

The senses of *taste* and *smell* are still more closely allied than those of sight and hearing; because there is not only an analogy in their morbid derangements, but likewise a close association and interdependence in their functions. It is rarely that one organ is troubled without the other being involved; the loss of scent entails the loss of taste. But there is little to be gathered from these morbid conditions. A disagreeable sense of odours or taste implies perversion of the organs, which is often met with in fever and other maladies, involving derangement of the assimilative functions, yet without being specifically characteristic, except in confirming what is learned from other symptoms: but their successively suspended office sometimes indicates the progress of disease in the brain, when vegetative life alone survives; or, it may be, as I have witnessed, that the intellect is left to watch, unmoved, the onward march of that advancing disorganisation which marks the degradation of the earthly tabernacle, calmly anticipating the moment when the last prop shall be withdrawn from the tottering fabric, and seeing in "the damp vault's dayless gloom" the welcome portal to unbounded liberty and unfailing light.

OBSTETRIC MEMORANDA.

HEAD AND HAND PRESENTATION.

By R. B. Ruddock, Esq., Clifton.

Dr. Tenison's case in the Journal of the 4th inst. reminds me of a similar presentation I met with last year.

Mr. Hore called on me late one night, asking me to assist him in a case of turning. The woman had been in labour twenty-four hours; the membranes had ruptured eight hours. On visiting the patient, the midwife, an experienced woman, who had called in Mr. Hore, told us that the case had made considerable progress in his absence, and was going on very well. Under these circumstances, we thought it prudent not to interfere, and left. Next morning, ten hours afterwards, we found the patient in precisely the same state we had left her overnight. Mr. Hore administered chloroform whilst I turned the child. It was by no means an easy matter, jammed as it was into the pelvis. She was under chloroform about two hours, and about three ounces were used. The child, a large male, was dead. The woman made a good recovery.

HEAD AND RIGHT HAND PRESENTATION, TOGETHER WITH FUNIS.

By C. H. Collins, Esq., Chew Magna.

Mrs. H., aged 35, in labour with her fourth child, had been attended for some hours by her mother, who acted as a midwife. On my arrival, I found about two or three inches of the cord down externally, and, on examination, the head and right hand presenting. The pains were regular and persistent; but the expulsive efforts appeared unable to overcome the difficulty of forcing the head, which was, together with the hand, rather firmly impacted in the brim. All pulsation had long ceased in the cord. Not having my instruments with me, I despatched a messenger for them, with the intention of performing craniotomy, as it was quite impossible to force the hand back. During the interval, not wishing to be idle, I succeeded, by a little manipulation, in hooking my finger over the ridge of the orbit; and, by using as much traction-power as I was able to command by that means, during the expulsive efforts of the pains, I managed to deliver the patient of a dead child, of full size and development. The patient herself made a good and rapid recovery.

PUERPERAL CONVULSIONS SUCCESSFULLY TREATED BY DEPLETION.

By W. Weaver Jones, Esq., Cleobury Mortimer.

In the year 1863 (May 23rd) I reported in the British Medical Journal five cases of puerperal convulsions successfully treated by depletion. All the patients are now living. I now beg to forward the notes of another case that occurred on the 29th of May.

J. C., aged 24, married, of full habit, primipara, was at the full period of utero-gestation. Labour commenced at 5 A.M.; she was seized with convulsions immediately after a thunder-clap, 8 A.M. Several fits occurred, and at 10 A.M. she became totally insensible. I saw her at 2 P.M.; she had had up to this time seven convulsions; the pulse was 120; the countenance blue; the breathing stertorous; the pupils dilated; the tongue protruded and swollen; the os uteri was open fully, and the membranes tense. She was bled to twelve ounces; the membranes were ruptured; cold was applied to the head. She was delivered by forceps of twins; the first child was a male, still-born; the second a female, living. Up to 8 P.M, she had five convulsions, not so violent; the breathing was less stertorous, but she was quite insensible. An injection of gruel, with two ounces of brandy, was administered. On the 30th, at 8 A.M. she had had four convulsions since 8 o'clock on the previous night, the last occurring at 1 A.M. She was now conscious: another injection was administered. She has progressed favourably since.

REPORT OF THE EDINBURGH COMMITTEE

ON

THE ACTION OF MERCURY ON THE LIVER.

By J. HUGHES BENNETT, M.D.,

CONVENER AND REPORTER.

Part I.

It may be remembered that, in an Address I had the honour of delivering two years ago at Chester, I urged upon the British Medical Association the propriety of doing something, in its collective capacity, towards solving one or more of those doubtful points in practical medicine connected with the action of medicines or the treatment of diseases. The proposal, having met with the general approbation of the meeting, was committed to the Council; and, in the middle of the following October, I received a letter from the Secretary, informing me—"That, in accordance with a resolution passed at the last annual meeting, the sum of £25 be granted, out of the funds of the Association, to a Committee, to be appointed by, and under the direction of, Professor Hughes Bennett, to investigate the Action of Mercury on Animals." After hesitating for some time, in consequence of the inadequate sum voted, and after communicating with the President, who explained that although small there was no further balance available, I finally accepted the commission. In doing so, I was actuated by the feeling that this first effort of the Association to investigate an important medical question, with the aid of its funds and by a combined effort of its members, ought to be prosecuted at all risks; I also felt confident that an earnest effort in this direction would ultimately receive the support of the Association.

My next step was to secure the co-operation of gentlemen who were capable in various ways of assisting the inquiry; and ultimately I secured the cordial co-operation of—Dr. Christison, Professor of Materia Medica and Therapeutics, Edinburgh; Dr. Maclagan, Professor of Medical Jurisprudence, Edinburgh; Dr. James Rogers, formerly of St. Petersburgh; Dr. William Rutherford, Assistant to the Physiological Department of the Edinburgh University; Dr. Frazer, Assistant to the Materia Medica Department of the Edinburgh University; and Dr. Gamgee, Assistant to the Medico-legal Department. The Physiological, Materia Medica, and Medico-legal Laboratories of the University were also to be placed at our disposal.

The Committee thus formed appeared to me to unite in itself all those elements required to give confidence in the results arrived at; viz., "The skill of the anatomical operator, the analytical power of the chemist, and the varied knowledge, theoretical and practical, of the histologist, physiologist, physicist, pathologist, and therapeutist, as well as of the physician whose knowledge of diagnosis is unimpeachable." In the Committee thus constituted, it appeared to me, every confidence might reasonably be placed, as "the energy and sanguine character of youth were sufficiently tempered with the caution and reasoning power of age, while every necessary instrument, appliance, and chemical, together with a public hospital, were at its disposal."

The Committee met on Nov. 16th, 1866, and, after discussing what branch of this extensive subject should be first investigated, it unanimously agreed to direct its attention to the Action of Mercury as a Cholagogue. On proceeding to consider by what method this was to be accurately ascertained, it was clearly pointed out by Dr. Gamgee, as the result of the opinion of modern chemists, that no kind of examination of the fæces would yield trustworthy results. Supposing that the chief and characteristic constituents of the bile found their way into the alvine evacuations unchanged, imperfection in the analytical methods at our disposal render their quantitative analysis impossible. The plan of ascertaining bile-acids indirectly by means of nitrogen and sulphur determinations of the alcoholic extract, while most unsatisfactory in the case o pure bile, is still more so when applied to the alcoholic extract of fæces. The method of Professor Hoppe-Seyler of Tübingen, who calculated the amount of bile-acids from the effect which their solutions exert upon the ray of polarised light, presents such complexity and difficulty as to render its systematic employment in any series of analyses altogether inapplicable. As to the colouring matters of bile, there is no direct method known by which they can be estimated. But, it was further argued that, did we even possess proper means of estimating the bile-products, it is only a small portion of such as are secreted by the liver which can be found in the alvine discharges. Bidder and Schmidt ascertained that the amount of unoxidised sulphur in them only represented one-eighth part of the total sulphur which the liver secretes, and that, of the other constituents of the bile, the larger proportion are absorbed. Indeed, the utter impossibility of detecting the constituents of bile in the fæces is admitted by one of the most reliable physiological chemists of Europe, viz., Professor Hoppe-Seyler. That, under the influence of purgatives, unchanged bile is occasionally discharged from the bowel is true; but this furnishes no proof of any increase of that secretion; for, under ordinary circumstances, it is decomposed and absorbed in the alimentary canal, and any cause which increases the rapidity of its passage there, must render absorption and decomposition less complete.

These arguments convinced the Committee that no accurate information as to the amount of bile secreted by the liver, was to be obtained by an examination of the fæces. They, therefore, arrived at the conclusion that the formation of biliary fistulæ in living animals, and collecting the bile directly through such fistulæ from the gall-bladder, was the only means open to them of determining how far mercury influenced that secretion.

HISTORY.

It next became necessary to ascertain what had been made out by previous observers, as to the amount of bile secreted by the liver, under varied circumstances, through biliary fistulæ. For literary researches into this matter, the Committee are greatly indebted to Dr. Rogers. He informs the Committee, in his report on this branch of the inquiry, that efforts to establish biliary fistulæ, and to collect the bile, have been attended with extreme difficulty in the hands of all experimenters, and have led to a large mortality among the animals operated on. Of 18 dogs operated on for this purpose by Professor Schwann of Louvain, 10 died within a week after the operation, from its immediate effects; 6 in from eight to eighty days from inanition, although the appetite remained good. In 2, the choledic duct was re-established. Some years afterwards, he operated on 12 other dogs, so that the total number operated on amounted to 30; and Bidder and Schmidt inform us, that of these one lived four months, and another a whole year, after the operation. The last mentioned authors say,* "We shall not take into account the unsuccessful cases, of which the number at the commencement of our investigation of this subject was not very small." Again, they say, "After ten or twelve unsuccessful attempts to establish permanent biliary fistulæ in cats, we were obliged to have recourse to dogs." Dr. Flint, in his paper on a New Function of the Liver, does not mention the number of dogs in which he performed the operation; but it is evident that a great number perished. He says, "all the experiments made during the winter 1860-61 were unsuccessful, no animal surviving the operation more than three days." After a number of trials during the following winter, which were not more successful than the previous ones, he succeeded at last with one animal. There is every reason to believe that, had other experimenters informed us of their failures, the number of these would have been equally great. In the few cases which have succeeded, however, it is important to remember that a large amount of valuable information regarding the bile has been obtained, that never would have been arrived at without them.

The operation performed by physiologists on animals in order to establish biliary fistulæ, has, with a few modifications, been essentially the same, and will be subsequently described when detailing the experiments of the Committee.

The results arrived at may be divided into: 1, the amount of the biliary secretion in health, and the causes which influence it; 2, the special effect of mercury on the secretion of bile.

Previous Researches to Determine the Amount of Bile Secreted in Dogs, and the Circumstances which influence it.

Haller.†—In Haller's Physiology, reference is given to several cases in which attempts had been made to ascertain the quantity of bile secreted in a given time by experiments on living dogs. The description of them, however, is so very vague and general, that they possess little interest for the physiologists of the present day. Van Reverhord found the quantity of bile secreted by a dog in twenty-four hours to be 6 oz.; and Haller, estimating the secretion in the human subject at four times that in the dog, suggested 24 oz. to be the quantity secreted daily in the healthy human adult. He likewise alludes to an interesting case of a man in whom a biliary fistula was formed in consequence of a wound of the gall-bladder. Taeconus, who saw the case, estimated the amount of bile discharged by the fistula at 4 oz.; but whether the expression "eodem tempore" refers to six or twenty-four hours, it is impossible to say—probably to the former.

*Schwann.**—It was not till 1844 that any serious attempts were made to investigate this subject by Professor Schwann of Louvain. He made several interesting experiments, by means of biliary fistulæ, to ascertain the utility of bile in the animal economy. Unfortunately, he does not appear to have carried out his intention of ascertaining accurately its amount.

Blondlot.†—In 1846, Blondlot succeeded in establishing a biliary fistula in a dog of middle size, in which he gives approximately 40 to 50 *grammes* as the amount of bile secreted in twenty-four hours. His estimate, however, was not made with great precision; for he only collected the fluid for short periods at a time; and could not, therefore, ascertain its exact amount in twenty-four hours.

H. Nasse.‡—Heinrich Nasse of Marburg published in 1851 an interesting memoir, giving an account of a series of experiments performed on one dog in which a biliary fistula had been established, and which lived afterwards five months and a half. His object was to ascertain the influence of the quantity and quality of the food on the biliary secretion. As we have not succeeded in obtaining the original work, the result of his researches will be subsequently tabulated as obtained from the abstract given of them in Canstatt.§

Bidder and Schmidt.‖—In 1852, Bidder and Schmidt, in their work on the Digestive Fluids, gave an account of the most elaborate experiments yet made to determine the amount of the biliary secretion. They succeeded in establishing biliary fistulæ in four dogs. In one dog, the daily observations extended from Feb. 17th to April 15th, when he was killed. The bile was collected by holding a balloon-shaped glass over the fistulous opening for fifteen minutes at a time; and this was repeated daily from six to ten times successively. The varying amount of biliary secretion obtained at one period was corrected by the results obtained at other periods, and the average amount calculated from a large number of observations. This method, though excellent for determining the amount of the secretion at different periods of the digestive process, is, as regards the daily quantity, evidently unsatisfactory. Besides, as the dog did not consume the same amount of food under these varied circumstances, that might vitiate the result. To simplify the tables, and render calculating easier, they estimated the amount of bile secreted at so much per *kilogramme* weight of dog. Thus, if a dog weighing 5 *kilogrammes* secreted 100 *grammes* of bile in twenty-four hours, it would be said that 20 *grammes* of bile were secreted for each *kilogramme* of dog in twenty-four hours. They estimate the average amount of bile per *kilogramme* in twenty-four hours at 19.999.

The following table gives the average amount of biliary secretion in the four dogs, with the average amount of food per *kilogramme* taken hourly and daily. One *kilogramme* weight of dog gives six *grammes*.

	1	2	3	4	5	6
In 1 Hour.						
Fresh bile	0.539	0.663	0.696	1.023	1.198	0.824
Dry residue	0.040	0.035	0.029	0.049	0.057	0.042
In 24 Hours.						
Fresh bile	12.936	15.912	16.704	24.550	28.750	19.99
Dry residue	0.960	0.840	0.696	1.176	1.268	0.988
Daily amount of food per *kilogramme* weight of dog		32.49 flesh; 1.74 bacon and butter.	17.85 flesh. 7.87 milk.	79.51 flesh. 8.32 bread.	66.42 flesh; 8.59 bread (rye).	

The first column gives the quantity of bile obtained from recently formed biliary fistulæ; the four following ones the quantity obtained in cases of fistulæ of some standing; and the sixth gives the average amount of the different observations.

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* Verdauung's Säfte und der Stoffwechsel, 1852, page 125.

† "Physiologia", tom. vi, page 605.

* Müller's Archiv. 1844, page 127.

† Essai sur les Functions du Foie, 1846.

‡ Commentatio de bilis quotidie a cane secreta copia et indole. Marburg, 1851.

§ Canstatt, Jahresbericht, 1856, 1st Heft, p. 87.

‖ Verdauung's Säfte und der Stoffwechsel, 1852.

Bidder and Schmidt found that the amount of bile secreted in a given period varies much in different species of animals. Thus, for every *kilogramme* of animal there is produced on an average:

CAT.	DOG.	SHEEP.	RABBIT.	GOOSE.	CROW.	
			In 1 *Hour.*			
0.608	0.824	1.059	5.702	0.491	3.004	Fluid
0.034	0.042	0.056	0.103	0.034	0.219	Solids
			In 24 *Hours.*			
14.50	19.990	25.416	136.84	11.784	72.096	Fluid
0.816	0.988	1.344	2.47	0.816	5.256	Solids

It appears remarkable that the rabbit should secrete five times as much bile as the other larger animals do, and that the crow should secrete so much more than the goose; but from the manner in which the bile-collections were made, little confidence can be placed in these results. They found that the amount of the biliary secretion was much influenced by the quantity and quality of the food and drink. Taking from six ounces to ten ounces of water produces a rapid increase of the secretion, attaining its greatest measure in from forty-five to sixty-one minutes after it has been taken, and diminishing as rapidly. They found that, when the food of cats consisted almost exclusively of fat, the secretion of bile was reduced to about the quantity furnished by fasting animals. Blondlot (p. 62) says that the use of fat increases the amount of bile; and Ritter and Nasse say that the addition of fat to the food increases the secretion—at least, when the supply of flesh at the same time is not great. Bidder and Schmidt also ascertained that the quantity of the biliary secretion varies at different periods of the digestive process, and that it attained its maximum thirteen to fifteen hours after a meal. On this point, it may be here observed, that Arnold supposed it to reach its maximum two to four hours after solid food was taken; Kölliker and Müller generally from five to eight hours; and Dr. Flint from two to eight hours. Dr. Dalton, from observations made on a case of duodenal fistula, thinks biliary secretion is at its maximum an hour after feeding. Ritter and Nasse, like Arnold, remarked two maxima in the course of the day: the first occurring during the first or second hour after feeding; the other so much the earlier the more scanty the supply of food.

In Bidder and Schmidt's tabulated observations on the first dog, it will be seen that the greatest amount of fresh bile was secreted between six and seven hours after a meal. It is true, that the greater amount of dry biliary residue was found in one of the collections made from fourteen and a half to fifteen and a half hours after feeding; but, in another quantity collected at the same period after feeding, the amount both of fresh bile and dry residue was much less than in that collected between six and seven hours after a meal. Again, of two quantities collected respectively on the 2nd and 6th of November, from fourteen to fifteen hours after feeding, the amount of fresh bile in the first collection was only about the half of what was secreted from three to four hours after a meal; and in the second collection it was about half of that secreted from four and a half to five and a half hours after a meal. The tabulated observations on the third dog seem to give more support to Bidder and Schmidt's opinion; but the quantities of biliary secretion given for different periods after feeding are too fluctuating to permit the amount of bile secreted at any given stage of digestion to be accurately estimated. The observations of Bidder and Schmidt themselves, therefore, do not support their own conclusion; and, as this is opposed to those of other experimenters, it must be concluded that the amount of bile secreted varies considerably in the same animal, and at the same period of digestion, even independently of food and drink.

Arnold.[*]—In 1854, Dr. Arnold published a work on the *Physiology of the Bile*, and afterwards made some additional experiments on the subject in 1857. The apparatus he employed consisted of a cannula 4½ *centimètres* long and 4 *centimètres* wide, attached by a screw to an elastic caoutchouc bag 10 *centimètres* long and 1 *centimètre* broad. Fifteen *millimètres* above this attachment, and at right angles with the cannula, was a metallic plate, 12 *millimètres* in diameter. This plate was placed between the skin and the muscles; and the wound healed perfectly over it, preventing all escape of bile between the soft parts and the cannula. The distal extremity of the bag had a cork-stopper, by taking out which the bile collected in it could be removed. The operation was performed in the usual manner on a healthy dog of middle size, weighing 9.250 *kilogrammes*, on the 18th of June, 1853. The common duct was first tied close to the duodenum, and again half an inch from the gut. The portion between the two ligatures was then excised. Although, after the operation, the dog was exhausted, and vomited its food more than once, on the following day he appeared to be quite well. The bile flowed freely through the cannula until July 1st, when it ceased. Another and wider cannula, with a broader border, was then inserted. This also, subsequently, was so forced forwards by the contraction of the wound, that no bile could flow, and the cannula was withdrawn. The apparatus first inserted was then employed, and answered perfectly, as the cannula was firmly fixed in its place by the wound healing over it; so that not a drop of bile escaped at its edges. From the 18th of June until the 6th of July, the dog was fed on bread, milk, flesh, and potatoes. It lost 375 *grammes* in weight during this period, without any perceptible derangement of digestion. The fæces were pultaceous, without any trace of bile-pigment; had a putrid odour; and contained a considerable quantity of fat, but no trace of muscular fibre. To prevent him from licking the bile, he was muzzled. From July 6th to August 2nd, he was fed entirely on flesh. From the 6th to the 9th of July, he ate daily 500 *grammes* of fat flesh. During this period, the fæces were like clay, soft, and contained a quantity of fat. The weight of the body diminished rapidly, so that on the 8th it was 8.203 *kilogrammes*, and on the 9th 7.750 *kilogrammes*. He was then lean, but lively, and had 750 *grammes* of flesh, pretty free from fat, divided into three portions, which he ate morning, midday, and evening. During the period he lived on flesh, his hair fell out largely, and could easily be pulled out in tufts without causing pain. There was also a large development of gas in the intestines, with borborygmi and liquid fæces. About the 20th of July, they assumed their natural consistence, and were brown externally, though of an ash-colour internally. Each time the fistulous opening was interfered with or irritated, the fæces became softer and more liquid, and their odour more cadaverous; while, when consistent, it was less penetratingly putrid. From August 3rd to September 1st, the food consisted of old rye bread, of which there was consumed, on an average, daily 470 *grammes*, and was commenced because the dog refused all animal food. During this period, its weight increased to 8 *kilogrammes*, the emaciation disappeared, and the falling off of the hair diminished. Indeed, the hair in a few months grew abundantly, so that it presented a black shining coat, as before the operation. The appetite returned, and he ate greedily. The digestion was good; the fæces of firm consistence, of a yellowish-grey colour, like that of the bread, and less offensive than when he was fed on flesh. Their quantity also was increased as three to two. Their average daily weight was 320 *grammes*; whereas, when fed on flesh, it was 210 *grammes*. He also drank more. When the diet was bread, he drank daily the average quantity of 450 cubic *centimètres*; when fed on flesh, only 340 cubic *centimètres*.

The quantity of bile secreted on the average, when fed upon 750 *grammes* of flesh and upon 470 *grammes* of rye bread, is shown in the following table.

Daily food.	Weight of dog.	Bile secreted daily.	Bile-solids daily.	Bile secreted daily per kilo.	Bile secreted hourly p. kil.
750 gr. flesh	7.750 kilos	90.295 gr	2.892 gr. to 3.056 gr.	11.65 gr	0.486 gr.
470 gr. rye-bread.	7.812 kilos	63.024 gr	1.662 gr. to 2.634 gr.	8.067 gr	0.336 gr.

From hourly observations it appears that, the largest quantities of bile were secreted during the first hours after getting food; drinking water also increased the secretion. The dog caught cold September 1st, and died September 3rd, from peritonitis. On September 4th, the body of the animal weighed 7.512 *kilogrammes*. On dissection, it was found that where the ductus communis choledochus had been cut out, a new one three lines long was formed, having on one side of it a small collection of pus containing the ligatures. It was therefore believed that in a short time the common duct would have been re-established. Round the plate of the cannula a newly formed mucous membrane was discovered, continuous with the gall-bladder.

The following are the more important conclusions drawn by Arnold from the whole inquiry (p. 19.) 1. Cutting off the bile from the intestines, if a sufficiently increased quantity of food can be digested, is not injurious to an animal. For two dogs of the same weight, one with, and the other without fistula, the first will require five-eighths more flesh or three-fifths more bread than the second. 2. The quantity of bile secreted is influenced by the quantity and quality of the food. A dish of bread gives rise to a less secretion of bile than one of flesh. 3. From experiments on dogs with biliary fistulæ, in consequence of the increased diet they require, no conclusion can be drawn as to the quantity of bile likely to be secreted in healthy dogs in proportion to the amount of food they take. 4. The quantity of bile secreted in proportion to the weight of the animal is estimated too highly by Bidder and Schmidt, and also by Nasse; because all animals with biliary fistulæ require much more than their ordinary food to keep up their usual weight, while the quantity of the diet influences the amount of bile secreted. 5. Besides food, the drinking of water considerably increases the secretion of bile. 6. The nature of the food does not much influence the solid constituents of bile. Arnold admits, however, that in this respect Nasse's observations may be more accurate than his own. 7. The secretion of bile, apart from the influence that it exerts on the absorption of fat, plays an important part in the process of nutrition. 8. In Arnold's dog, the biliary secretion was most copious during the first hours after taking food. After the fourth hour it began to diminish until the twenty-fourth hour, when it was least, but the diminution was not regular. His manner of collecting it, however, like that of Bidder and Schmidt, is objectionable—viz., at varying periods of fifteen minutes, half an hour, and an hour. Instead, therefore, of determining how much bile flowed in twenty-four hours, this was made to appear by multiplying so many times the half hour or hour collections.

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[*] Zur Physiologie der Galle, 4to, Mainz, 1854.

*Kölliker and Müller** made some experiments on the bile during the years 1853 and 1854, of which they published an account in the *Wurzburg Abhandlungen* for 1855. They succeeded in establishing biliary fistulæ in three dogs. For one *kilogramme* of dog, they found in twenty-four hours—

Hours after food.	Fresh bile.	Dry residue.	No. of observations.
1 to 2	1.450	0.051	8
3 to 5	1.407	0.047	5
6 to 8	1.514	0.048	8
16 to 22	1.320	0.051	7

Another dog gave the largest quantity four to five hours after feeding, and least after nineteen to twenty-one hours. A third dog gave the maximum five to six hours after a meal, and not much less after sixteen or seventeen hours. They found, as other observers had done, that the quantity of food consumed has a decided influence on the quantity of the biliary secretion. When, for example, a dog ate 18½ ounces of flesh in twenty-four honrs the bile collected amounted from 5.3 to 6.6 *grammes* in an hour, but when it ate 33½ ounces of flesh, it was increased from 7.5 to 7.8 *grammes*. It is important to observe that the calculation of Kölliker and Müller, like those of Bidder and Schmidt, were derived from collections of bile made during a quarter of an hour, half an hour, and occasionally one hour, and the amount per day was estimated from the averages of these. In no case was it collected continuously for twenty-four hours.

Scott.†—Dr. Scott appears to have been the first who collected all the bile secreted by a dog during twenty-four consecutive hours. We must refer to his paper for a description of the method he adopted for collecting it, and for the account he gives of his interesting and carefully conducted experiments and analyses. He avoided the error liable to occur in calculating the amount of bile secreted in twenty-four hours, from quantities obtained during a part only of that period. He estimated the amount of fresh bile given off in twenty-four hours at about 23-15 *grammes*; of dried residue at 1.13 per *kilogramme*.

Dalton.‡—Dr. Dalton of New York attempted to ascertain the amount of bile which passed into the duodenum from the choledic duct by means of a duodenal fistula. But, as in this manner it is obviously impossible to determine the amount of the entire quantity given off by the liver, no account of his researches need be given.

Flint.§—The last experimenter we need cite is Dr. Flint of New York. As his object, however, was rather to ascertain the amount of cholesterine secreted by the liver, than to determine the quantity of biliary secretion, he does not give us much information on this point. In one dog, the bile was collected for thirty minutes at a time during various periods of the day, and was found to be secreted at its maximum four hours, and at its minimum twenty hours, after feeding. The dog weighed 10 pounds; and there were collected, in the twenty-four hours, 43.233 grains—an amount which gives an index of the quantity secreted during that period. He further says that, disregarding slight variations, which might be accidental, it may be stated in general terms, that the maximum flow of bile from the liver is from the second to the eighth hour after feeding, during which period of time it is about stationary.

We here subjoin a table containing the results of the experiments of different physiologists who have investigated the subject of the biliary secretion. With the exception of the results of those of Dr. Flint and Dr. Scott, the table, of which the arrangement is slightly changed, is taken from Canstatt's *Jahresbericht* for the year 1863, No. 1, p. 141. The weight is given in *grammes*.

Names of observers.	Amount of bile secreted in 24 hrs. per kilogramme weight of dog.		Food taken in 24 hours per kilogramme weight of dog.	Quantity of bile secreted in 24 hrs. for 100 grammes of food.	
	Fresh bile.	Dry residue.		Fresh bile.	Dry residue.
Nasse, 1851	19.2	0.685	155 flesh	12.3	0.440
	22.8	0.700	208 ,,	11.1	0.337
	23.1	0.784	260 ,,	8.9	0.300
	24.0	0.765	At will	...	...
	28.4	0.760	,,	...	...
	17.7	0.446	100 flesh and 100 br.	...	...
	17.9	0.400	130 ,, 100 ,,	...	...
	12.2	0.500	87 bread	13.9	0.575
Bidder and Schmidt, 1852	15.9	0.840	32.4 flesh, 1.7 fat	49.3	2.608
	16.7	0.696	17.8 ,, 7.8 milk	83.5	3.48
	24.5	1.176	79.5 ,, 8.3 bread	25.7	1.23
	28.7	1.268	66.4 ,, 8.5 ,,	35.1	1.54
Arnold, 1854-57	11.6	0.373	96 flesh	12.0	0.385
	8.1	0.215	60 bread	13.4	0.357
Kölliker and Müller, 1853	32.7	1.034	...	...	...
	32.6	1.290	98 flesh	...	...
	26.1	1.013	92 ,,	28.56	1.694
	21.5	0.748	94 ,,	22.85	0.792
	36.1	1.162	64 ,,	56.50	1.816
	53.6	1.683	94 ,,	56.7	1.79
	32.1	...	37.9 bread, 90 cubic centimetre of milk	...	...
Scott, 1858	23.11	1.128	58.7 flesh, 10.3 milk	35.0	1.6
Flint, 1862	11.98	0.440	...	...	...

II. *Previous Researches to determine the Influence exercised by Mercury on the Biliary Secretion.*

*Nasse.**—Professor H. Nasse was the first who attempted to ascertain, by experiment on the dog with biliary fistula, the influence of mercury on the secretion of bile. It is stated in Canstatt that the result of his experiments was, that calomel increased the absolute quantity of the bile, but diminished its solid constituents.

Kölliker and Müller administered to one of their dogs which had a biliary fistula, 4 grains of calomel at ten o'clock on the morning of the 28th. Five half-hour observations made after midday gave an average of 3.823 *grammes* of bile excreted, an amount a little above that of previous averages. On the following day, however, four half-hour observations gave on an average 3.267 *grammes*,—that is rather less than the usual average.

On the 21st and 29th days the dog took again 4 grains of calomel, but the biliary secretion, instead of increasing, diminished. Seven observations of half-an-hour each, from the 28th to the 31st day, gave an average of only 2.183 *grammes*, and the bile at the same time was of a brownish colour, and so thick that at last it scarcely dropped from the cannula. This circumstance was undoubtedly owing to the dog's health, which was bad. It had lost weight, had diarrhœa, greyish coloured, and even later bloody stools. For several days at this period the animal took only a little bread and milk.

Dr. Mosler,† in his investigations, proposed to himself the question, "What substances introduced into the blood appear in the bile?" In some of the experiments a solution of the substance to be tried was injected into the blood, in others the medicine was given by the mouth, and the bile afterwards tested, to ascertain if it contained any trace of the substance administered. With regard to mercury, he tells us, that on the 23rd of May, at seven o'clock A.M. 5 grains of calomel in a little bread and milk were given to a dog, who had a completely healed biliary fistula. All the bile secreted till three o'clock P.M. was collected by means of a sponge and tested for mercury, but not the slightest trace of it could be discovered. At 4 o'clock P.M. 10 grains of calomel were administered to the same animal, and for greater accuracy a small tube with a caoutchouc bag attached was introduced into the fistula, and kept there till next morning. No trace of mercury was found in the collected bile, and no striking increase of the biliary secretion was remarked. After this experiment the animal was dull, ate less than usual, and had thin very offensive stools. To make a trial of the drug in smaller doses, Dr. Mosler gave the same animal one grain of calomel every hour from the 25th to the 26th of May, so that altogether 25 grains of calomel were given,—no trace of mercury could be found in the collected bile. To another powerful dog with biliary fistula he gave, on the 19th of August, at nine o'clock, three pills, each containing 3 grains of calomel. Next morning at six o'clock A.M., three similar pills were given, and at nine o'clock two more—so that the dog had 30 grains of calomel in eighteen hours. The bile discharged from the fistula was carefully collected by a sponge, from three o'clock on August 11th till the same hour on August 12th. Compared with the quantity collected during twenty-four hours on the day previous to that of the experiment, there was no striking increase of bile, nor did it contain any trace of mercury. He repeated this experiment with 24 grains of calomel with the same negative result. Dr. Mosler concludes from these experiments that, when mercury is administered in the form of calomel, either in small or large doses, it does not pass so rapidly into the bile, nor produce the marked increase of the biliary secretion that medical men imagine. It is much to be regretted that Dr. Mosler did not measure the bile passed during these experiments, which would have given far more value and precision to his observations.

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* Würzburg Abhandlungen für 1855, Band v.

† Beale's Archives, vol. i.

‡ Physiology, p. 190, 3rd edit.

§ American Journal of Medical Sciences, vol xliv, p. 366.

* Canstatt's Jahresbericht, 1852, Heft i, p. 156.

† Virchow's Archiv, Band xiii, S. 29, 1858.

Scott.—The only other experiment made to determine the influence of mercurial preparations, or rather of calomel on the biliary secretion, with which we are acquainted are those of Dr. Scott, who deserves great credit for the careful and scientific manner in which he has carried them out. We shall have occasion, however, to point out some circumstances which seem clearly to shew that they must be regarded rather as valuable contributions to aid us in determining the influence of calomel on the biliary secretion, than as data which, of themselves, warrant any definite conclusion; indeed, Dr. Scott himself has fully admitted the truth of this remark. Dr. Scott made four trials with calomel, in which he estimated the amount of increase or decrease of the biliary secretion by taking the average of two days previous, and of two days subsequent to its administration.

In the first trial 3 grains of calomel were given to the dog at three o'clock P.M. on the 13th of June.[*] The daily average amount of bile secreted on the 11th and 13th of June was 1960 grains, and that of bile secreted on the 14th and 15th, 1358 grains, showing an average diminution of 602 grains for each of the two days subsequent to the administration of the calomel.

In the second trial, 6 grains of calomel were administered at eleven o'clock A.M. on the 16th of June.[†] The amount of bile secreted during twenty-four hours, and collected on the morning of the 16th, was 1639 grains, and of that secreted during the subsequent twenty-four hours, and collected on the 17th June, was 518 grains, indicating a diminution of 1121 grains in the biliary secretion during twenty-four hours after the administration of the calomel.

In the third trial, 12 grains of calomel were given at 4.30 P.M. on the 3rd of July, the average daily secretion of bile for two previous days (2nd and 3rd of July) amounting to 3044 grains, and that for the two subsequent days (4th and 5th of July) to 2720 grains, showing a diminution of 323 grains on the average daily quantity of bile secreted after the administration of the calomel.

In the last trial, 12 grains of calomel were given at 5.45 P.M. on July 7th; the daily average amount of biliary secretion on the two preceding days (the 6th and 7th) being 2658 grains, and on the 8th and 9th July being 1724 grains, shewing a diminution of 933 grains in the daily average quantity of bile secreted after the administration of the calomel.

We subjoin a table of the daily amount of fresh bile, collected for several days, in order that our subsequent remarks may be intelligible to the reader. The cross before the dates indicates the days on which calomel was administered.

Amount of Bile secreted in Twenty-four Hours, in Grains.

June 11	1628.00	July 1	2168.051
,, 12	1767.700	,, 2	2941.239
†,, 13	2293.527	†,, 3	3148.400
,, 14	1819.636	,, 4	2560.300
,, 15	896.680	,, 5	2881.500
†,, 16	1639.968	,, 6	2644.300
,, 17	518.701	†,, 7	2672.900
,, 18	1810.450	,, 8	1963.500
,, 19	817.717		

Dr. Scott concluded that all the trials gave but one result; viz., "a diminution in the amount of bile and bile-solids secreted after the administration of large doses of calomel". We are of opinion, however, that the diminution is not nearly so great as he has made it appear; thus, for example, if, in the first trial, we set aside the results of June 12th (as Dr. Scott has done), and only take the amount of bile secreted during the twenty-four hours previous, and subsequent, to the administration of calomel (as Dr. Scott has done in the second trial), the amount of decrease will be considerably less than he has calculated it to be.

Again, if we take the average amount of bile collected during two days previous, and two days subsequent, to the administration of the second dose of calomel, the result will be very different from what Dr. Scott's calculations make it. Instead of a diminution of 1121 grains, it will amount only to 104 grains; and we must not overlook the fact that, on the day when the calomel was administered, the dog did not get any food.

Dr. Scott does not mention at what hour of the morning the bile was collected. If we suppose it was collected at 10 o'clock A.M., twenty-three-hours would thus be left for the action of the calomel, which was administered at 11 o'clock A.M. on the preceding day. It might be said, that the action of the calomel would not be exhausted in that time; and that we ought not, therefore, to admit the collection of bile of the 15th into the calculation for obtaining a daily average amount on the two days previous to the administration of the calomel. On June 18th, however, the second day after the second administration of calomel, the amount of biliary secretion increased from 518 grains on the 17th to 1810 grains on the 18th, 171 grains more than the quantity secreted on the 16th, a day on which calomel could not have had any influence on the amount. Consequently we must conclude, that the influence of the calomel did not extend, in this case, to the second day after its administration; or, if it did, it was not to diminish, but to increase very largely the secretion. Up to the present time, we know little or nothing of the duration of the action of a dose of calomel on the biliary secretion; so that we have no reason to assign a period of two days, rather than of one or of three, as the duration of its action. It would be to ascribe, in the one case an increase and in the other a diminution, to the same cause; that is, the action of the mercury on the second day after its administration. In short, the number of Dr. Scott's observations are far too few, and not sufficiently long continued, to allow us to draw any definite conclusions from them.

It must, I think, be evident, from this notice of all that has been previously accomplished, that no exact information has yet been obtained as to the influence of mercury on the secretion of bile, or as to any other action it may exercise on the liver.

It has been thought better to publish the historical part of the subject at present for two reasons: 1, because it may enable the members of the Association to take a greater interest in the results of the Committee, which are to be brought before the Oxford meeting; and 2, because, if any other researches are known that have not been embraced in the above Report, they may be communicated to the Reporter, and the whole inquiry rendered as complete as possible.

THE POSITION AND PROSPECTS OF THE MEDICAL PROFESSION:

BEING PART OF THE PRESIDENT'S ADDRESS.[*]

By C. E. PRIOR, M.D., Bedford.

[AFTER some preliminary remarks, in which he congratulated the Branch on its progress, Dr. Prior made the following remarks on the Position and Prospects of the Medical Profession.]

The days of the village apothecary, whose natural science came at second hand from the curate or village schoolmaster, whose experience comprised little beyond the virtues of some special form of aperient, the value of some favourite specific for measles, or the treatment of the ordinary emergencies of midwifery, it would appear to me, are passing away. The medical profession of the future, if it be to retain its proper rank, must consist of men distributed over the country, of liberal education, conversant with natural science, and socially, as well as intellectually, on a level with the clergy of the establishment. . . . In order to place us in such a position, several things appear to me to be required: a more liberal preliminary education; a longer curriculum of study; an increased rate of remuneration; a more certain tenure of appointments; a certain amount of that leisure which is considered indispensable in all other learned and laborious professions. I can see no reason that the amount of classical, mathematical, and historical knowledge required for entrance upon professional studies should be less than the moderate demands of our universities at matriculation. Theirs, be it borne in mind, is but the commencement of a classical or mathematical course; ours a final adieu to it, unless it be kept up as a recreation. To call for less than this, then, appears to me something like inviting a second-class article. The period of our curriculum is too short; the element of age is not sufficiently regarded. For twenty years or so I have lived in a town devoted to a great extent to large educational establishments, and I have been familiar with their working. During all that period I have never known a youth of first-class ability (and by first-class ability I mean such as would obtain an exhibition in our schools, or a scholarship at the university) to enter the medical profession from the schools; and very few of the second class. I know it may be urged, that the character of talent which would achieve university success is not always the best calculated for the study of medicine, but the fact remains. Our youths who go to the medical profession leave school generally at seventeen years of age; and, if they are moderately assiduous, they graduate at twenty-one. Those who enter the university continue at school, on an average, two years longer. In four years the aspiring *medicus* emerges bedizened with the distinctions of M.R.C.S., L.R.C.P., and so forth. His more gifted schoolfellow, who is by this time only halfway towards the B.A. degree—has, perhaps, just got through his moderations—looks with surprise and with suspicion, perhaps not without disdain, on the sounding titles thus early, if not easily, acquired. The age of twenty-two is quite soon enough for the possession of a diploma.

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[*] The bile secreted during twenty-four hours was always collected on the morning of the day indicated. The amount obtained on June 12th was not used in calculating an average, as a considerable quantity was lost in collecting it.

[†] The amount of bile collected on the 15th was not used in making an average, probably because Dr. Scott supposed the secretion of the previous twenty-four hours was still under the influence of the calomel.

[*] Delivered at the annual meeting of the South Midland Branch, June 18, 1868.

Moreover, conceiving as I do that the charge of a medical district is a thing in its way requiring just as much discretion as a cure of souls, I would not allow such a charge to any one who had not been for two years in possession of his diploma. Our rubrics provide that every candidate for priest's orders shall be at least twenty-four years of age; and every district medical officer should be of at least the same standing.

I have mentioned the Poor-law medical service. It is there, to my mind, that our whole difficulty hinges; and that is the platform, if any, on which the standard of the medical profession must be raised throughout the country. In pleading for a better social rank and an increase of age and experience in those entering the Poor-law medical service, I have not forgotten that such advantages as these necessitate an increased remuneration. On the details of this I have no space to enter: suffice it to say that the present beggarly system requires a most horough revision; and that appointments of great responsibility, to invite the attention of educated gentlemen, require to be paid on the same scale as those held by the legal profession, who count by their ens and their fifties, and do not advance by wretched aliquot parts of a ive-pound note. The Poor-law medical service should be made a *ervice.* The element of permanency has at last, with some reluctance, een infused into it. I would strengthen this element; I would let the Poor-law medical officer have the comfort of knowing that the appointment was his *quamdiu se bene gesserit*; that he was independent of the ll-will or prejudices of guardians; that his actions would be judged by a medical tribunal; while, in every union, I would constitute the senior medical officer an inspector, to act as medical adviser to the board of guardians, with a seat at their board, though not a vote. This office might only be held for a prescribed time. It would hold out a fair stimulus to the ambition of the entire service; and the inspector should be he officer to be appealed to by his brethren in all cases of difficulty.

Within the last few years, the rural hospital or cottage hospital has made its appearance. The advocate of the more ancient and exensive institution may point with pride to his magnificent wards, his laborate ventilation, his ample corridors and regal staircases; he may rgue, with unquestionable truth, the advantages to be derived to he profession from a large number of similar cases grouped under a ingle roof. But the advocate of the village hospital, or of the hosital village (and who can say how long it may be ere the latter becomes a ecognised institution?), is ready with his response. The tempests of epiemics which ravage large institutions break with comparative harmessness over cottage infirmaries, with their half-dozen occupants, at iles from each other over the face of the country. What is it to hem that a case of pyæmia has occurred in a similar institution in peraps the next county? that erysipelas forbids any operation throughout he populous wards of an Hôtel Dieu or La Pitié? that hospital ganene has found its way into Haslar? or that epidemic diarrhœa has ized the county infirmary? Visitations of this sort, which course ith unerring certainty through large establishments, are sure to miss one other of small institutions scattered in nooks and corners. Again, what possible mechanical or chemical arrangement can the sweet air the Chiltern Hills be reproduced within the city and liberties of estminster or London? The principle is one that appears to be ining ground in many directions. The new hospital of St. Thomas ll consist of a series of detached pavilions. The recent and remarkle address of Sir J. Y. Simpson at Belfast has thoroughly shaken our faith in large midwifery hospitals. It does not require much foresight to regard these as doomed; while the increase of facilities of communication and the improvement of medical skill, as well as their own unpretending records, have given these little establishments a most favourable hold on the public mind. Their diffusion throughout the country would be an immense advantage both to the sick poor and to the medical profession; with, however, this especial proviso, that the gratuitous system, by which we have as a profession suffered so much, and brought the value of our services, as well as the opinion of our motives, to so low an estimation, should once for all be abandoned.

To every district medical officer—at least, in every outlying medical district—I would assign a cottage hospital, with its paid nurse, its regulated number of medical instruments and appliances. Consider the advantage which would accrue to the medical profession, and also to the poor, if, as a part of the system, a village hospital were assigned to each of the outlying districts of the Bedford Union—one at Turvey, one at Harrold, one at Sharnbrook, one at Risely. It should be the duty of the union medical inspector to visit each cottage hospital (say once in six months), to report on its condition; and it should be the duty of the district medical officer to summon his assistance in all cases of peculiar urgency and all operations of importance.

Thus, then, backed by his district and by the experience of his rural hospital; retaining all his best and most interesting cases for close observation and treatment, instead of allowing them to be drafted away; with a respectable, nay a valuable, appointment in possession, and one of still higher standing in no very remote prospect; how much might the status of the country medical officer be improved!

CLINICAL MEMORANDA.

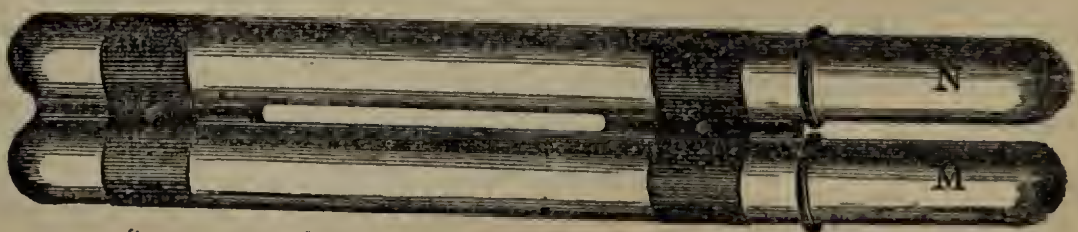
[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

THE THERMOMETER IN PRACTICE.

By EDWYN ANDREW, M.D., Shrewsbury.

As the value of the thermometer in a diagnostic point of view is becoming more estimated daily, and as the objection to its use in general practice is the time required in taking the observations, I venture to give a description of the following little contrivance which I have found very useful in my own practice.

Instead of taking the temperature at the time of my visit, I leave two index-thermometers with my patient to be used at nine A.M. and at nine P.M. The diurnal variation is thus seen, and if I have any doubt I can soon verify the truthfulness of the observation of the patient's nurse or friends, by taking the temperature myself at the time of visit. Formerly, when my patient used the single thermometer without an index, the correct temperature was rarely obtained; and when with the index, the thermometer was always spoilt in setting it. To prevent, as far as possible, any of these difficulties, the words *night* and *morning* have been written in large letters on the glass on each pair of instruments, which are enclosed in a very convenient portable case, containing two compartments marked N and M to receive the corresponding night and morning thermometers. The figures can be read so quickly, and the instrument prepared for the next day with so little trouble, that I am using them in a number of cases merely for scientific interest, and am also pleased to find that, while no patient objects to their use, many absurdly attach to the instruments a kind of talismanic benefit.



Twin case for Thermometers. Length, 7 inches; width, 1 inch.

I enclose a diagram of the portable little case, manufactured according to my orders, by Messrs. Harvey and Reynolds, 13, Briggate, Leeds, the well known makers of Dr. Allbutt's clinical thermometers, which instruments I have generally used.

I hope that these simple hints may save time to my hard worked medical brethren in the country.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 25TH, 1868.

ELECTRO-THERAPEUTICS.

III.

AS yet, we know but little regarding the nerves which preside over the nutrition of the textures (trophic nerves). That some cerebro-spinal nerves possess this function is shown, *e.g.*, by the effect on the salivary secretion of stimulation of the chorda tympani. The sympathetic, however, is generally regarded as being *par excellence* the system of trophic nerves. They appear to influence the nutrition of a part in two ways: first, by acting on the ultimate tissue; secondly, by acting on the blood-vessels of a part. The extent of the influence exerted by these nerves is, however, not known to us; and we are almost quite ignorant of the part they play in pathological processes. Remak was the first to draw attention to electrisation of the sympathetic. People thought he was romancing when he spoke of the great importance which ought to be attached to this system of nerves in explaining certain pathological conditions and in furnishing an indication for treatment; and Benedikt (*Electrotherapie*, p. 86) believes that the remarkable results which he has found to follow the application of Galvanism in the region of the carotid in some cerebral affections—*e.g.*, vertigo, neuralgia, and symptomatic neuro-retinitis—must be attributed to the action of the Galvanism on the cervical sympathetic. The dilatation of the pupil which accompanies the application of the Galvanism is the immediate evidence that the cervical sympathetic is really stimulated in such a case.

Recent researches by Onimus, too (*Comptes Rendus*, 1867), show what important results may follow Galvanisation of ganglia. He found that, even after the action of the heart of a rabbit had been suspended for some time from the effect of too large a dose of chloroform, it was resumed when the negative pole of a Galvanic current was placed in the animal's mouth and the positive pole in the rectum. In such a case, it seemed as if the current removed the paralysis of the cardiac sympathetic, permitting the intracardiac influences again to throw it into contraction.

We recommend this experiment of Onimus to the careful consideration of those who administer chloroform. In an operating theatre, it would be an easy matter to have ready the wires of a continuous current derived from seventeen or twenty Daniell or Stöhrer's cells, so that the negative pole could be placed in the mouth and the positive pole in the rectum, and artificial respiration begun in a few seconds, should there be any signs of a fatal influence of the anæsthetic. In short, the electrisation of the sympathetic is a most interesting subject, deserving of very careful study.

Electricity is employed in therapeutics to stimulate paralysed muscles and nerves, so as to throw them into action and thereby to maintain their nutrition; to diminish over-excitability of sensory nerves; to cause absorption; to coagulate blood, and to cauterise. These are not all the objects for which it is used, but they are the chief. Faradic currents are usually employed to stimulate muscles and nerves, if the currents are not to be passed through the central nervous system. In the latter case, and also when the sympathetic is to be stimulated, blood to be coagulated, or a part to be cauterised, Galvanic currents are used. When muscles are to be thrown into action, the currents may be passed through the muscles themselves (direct stimulation), or through the nerves connected with them (indirect stimulation).

In cases where the cause of the paralysis is central, the latter is to be preferred, because we thereby throw the paralysed *nerve-trunk* as well as muscle into action, and so improve the nutrition of both. When we apply the electrodes over the muscles merely, we are apt to throw only superficial fibres into action; while, by irritating the nerves, we cause the whole muscle, or group of muscles, to contract. Nerve, too, is more easily excited by electricity than muscle, and so less painful currents suffice to stimulate muscles *indirectly* than are required to do so *directly*. Moreover, the longer the extent of nerve through which an influence must pass, the greater does the influence become: therefore a less painful (weaker) current will throw a muscle into action when applied to its nerve at some distance from the muscle, than when applied close to the muscle, or to the muscle itself. This is of importance when we have to deal with very irritable persons.

Duchenne showed that there are certain points of the skin over a muscle, to which if we apply the electrodes, the muscle is thrown into action more easily than when they are applied to it elsewhere. Remak named these "motor points", and showed that they are merely the points of entrance of the nerves. For stimulating muscles directly, Duchenne and others recommend Faradic currents, not derived from the secondary, but from the primary coil of the Galvano-induction machine. This primary Faradic current is obtained from the primary coil whenever the Galvanic current is opened. When we desire to irritate tissues lying below the skin, and not the skin itself, we should moisten the skin with a watery solution of common salt, in order to render the epidermis a better conductor than it is. This is most easily effected by covering the electrode with a piece of sponge wetted with the solution. Further, we should use a small electrode, pressed down firmly on the skin, so that the electricity may not be diffused, but may be *localised*, and pass immediately into the tissues which lie below. On the other hand, if it be our object to stimulate the sensory nerves, we should employ electrodes consisting of flat metallic plates or metallic brushes; and these should be used dry—that is, the *epidermis* should be kept dry. In using such electrodes, our object is to irritate a large portion of skin at once, and to diffuse the current over the skin. In no case save that of hysterical palsy, accompanied by hyperæsthesia, ought painful currents to be used; and it is important to remember that there is no direct relation between the irritating power of a current and the therapeutical effect which follows its employment.

We will conclude in our next the rapid sketch we have given of this subject.

THE REPORT OF THE CONTAGIOUS DISEASES COMMITTEE OF LORDS.

THE Report of the Lords' Committee on the Extension of the Contagious Diseases Act adds nothing to the professional, whatever it may to the public knowledge of the subject, and is altogether very inferior in completeness and intrinsic value to the Report of the Contagious Diseases Asociation, out of which the Committee springs. Oddly enough, the direct parentage of this Committee was given by the Chairman, Lord Lifford. It was appointed as the result of his cogitations on a leader n the *Daily Telegraph*, based upon the information then collected by he Association, and communicated to the *Telegraph* by Mr. Berkeley Hill—one of the frequent proofs now-a-days of the powerful influence of the press in forming public opinion, and bringing about great results, or which highly placed persons ultimately get the credit, as being the ast mouthpiece and ostensible actors.

The Report recommends "the introduction of a Bill into Parliament at the earliest practicable opportunity, giving to Her Majesty in Council power to apply the Act of 1866, first to all naval and military stations, and then to any locality the inhabitants of which may apply to be included in the operations of the Act, and be able to submit satisfactory proof of the following points—viz., that adequate hospital accommodation can be provided; that the necessary arrangements can be made for he religious and moral care of inmates of such hospital or ward; and hat the police force is efficient. It is further suggested that lock hospitals should be built in connexion with existing institutions, as being he more economical and convenient plan; and that every possible means should be taken to separate the married and possibly reclaimable, and the hopeless immoral, in hospital."

So far, therefore, it advances the matter a stage. We must observe, however, that we shall strenuously oppose the proposed addition of public ock wards to public hospitals, in which the honorary staff of the hospitals are to do gratuitously the work of the state, under an Act of Parliament. This is work necessary for the good of the state; and, if prescribed by Act of Parliament, it should be paid for. The Committee efer to Mr. Prescott Hewett's evidence (1140-1152) as their authority or recommending the establishment of wards in hospitals. The extreme mpropriety of the highly placed honorary officers of hospitals undertaking gratuitously work for which their less prosperous brethren ought o be engaged and properly paid, no doubt escaped Mr. Hewett's attention at the time; but we feel sure that he would be one of the first to ecognise it. We think it important at once to draw Mr. Hewett's attention to the subject. It would be very satisfactory if, to prevent misapprehension, he would forthwith qualify his evidence with this proviso. It will certainly be necessary to take steps to prevent Lord Lifford from introducing a clause into the proposed Bill imposing additional gratuitous work on the profession by Act of Parliament; and we hall hope to have Mr. Hewett's assistance in making representations on this subject in the proper quarter.

PHYSICIANS' PRESCRIPTIONS.

THERE may be some doubt as to the propriety of deducing from the melancholy case of accidental poisoning by strychnia this week the rule hat poisonous medicines should only be dispensed in "danger bottles"; but there can, we think, be very little as to the moral which should be drawn from it by prescribers who have adopted the prevalent modern ashion of ordering medicines in highly concentrated forms, so that a very few drops only constitute an ordinary dose. The administration of medicine thus becomes almost a nice manipulation of the laboraory, for which nurses, careless women, and ignorant servants, are left esponsible; while the smallness of the total bulk of medicine ordered asily leads to terrible catastrophe. We have before drawn attention to his danger; the sad fate of Miss Campbell will enforce the warning; and that it may not be supposed that this incident is the result of any very unusual form of prescription, we have selected the following examples of such prescription from the current books of one dispensing irm. One prescription before us contains one grain of strychnia in a luid-ounce of water, ten drops for a dose; another contains two grains of strychnia in an ounce and a half mixture, the order being to take en minims every morning, and increase the dose up to fifteen minims. Each of these small "draught" bottles would, of course, prove poisonous, if the contents were swallowed under the same kind of mistake as hat into which Miss Campbell fell; and the excessive concentration of the medicine makes the measurement of the dose a matter of undue nicety. But even these are less dangerous forms of prescription than two others presented at the same house (but privately referred to the physician for dilution before dispensing them): the one being simply for two drachms of dilute prussic acid, without written directions, and undiluted, the directions having been given to the patient verbally; the other ordering half an ounce of dilute prussic acid, pure and simple, with the direction that "five drops are to be taken three times a day in water." There are in the book shewn us many other prescriptions which have had to be revised by their authors owing to the caution of the chemist, including very large quantities of arsenic in a concentrated colourless solution; bromide of potassium ordered by the ounce, and to be measured unmixed by the patient by the "quarter-teaspoonful". This is a mode of prescribing which has obvious danger to the patient, and, of course, no advantage to the physician. It is adopted chiefly, we believe, with a view to economy for the patient, who gets more for his money from the chemist when the concentrated solutions, or crude medicines, are ordered, than when a duly diluted mixture is prescribed. As a matter of fact, however, we believe that the average net trade profits of pharmaceutical chemists are small, although the apparent and immediate profit of the drug is large. There are very few fortunes made in that business; there are very few large incomes amongst retail dispensing chemists. The public, at our instance, and with the consent of their own body, are requiring from them a long apprenticeship and a good knowledge of the scientific part of their business, and their customers have to rely much on their conscientiousness, skill in compounding, care, and watchfulness. They work hard, they are required to exercise unceasing vigilance in their business, and are liable to heavy damages for blunders dangerous to life. All this ought to be considered, when people talk of the profits of chemists—when medicines are ordered in a very concentrated form, to the evident risk and discomfort of the patient, but that he may get the largest amount of material for the smallest amount of money. A few more prescriptions from the same book will exemplify the kind of care which a vigilant chemist is bound to exercise. One prescription orders a dose of the solution of arsenite of potash, amounting to fifteen drops three times a day; another orders four grains of opium in a pill; and so on through a long catalogue. There are few physicians who are not conscious of having little accidental slips of prescribing corrected by the dispenser; and we all look to the dispenser to note and represent or remedy any such accidental and obvious *lapsus*. There are other classes of prescriptions, although not slips of the pen, which require, too, a very bold man to dispense them. Thus we find here a small plaster ordered to be made with three grains of pure aconitine, rubbed up in two drachms of extract of belladonna, to be applied *en permanence* to the skin, under leather. Another prescription is for *ten grains* of bicyanide of mercury, in a half-ounce of distilled water, as a lotion. When to these are added the ordinary risks of a business in which poisons are constantly handled, and which requires, for its due prosecution, considerable knowledge, care, and conscience, we are led to doubt whether our profession do well in saving the purses of their patients by a mode of prescribing which has only the advantage of lessening somewhat the profits of the chemist, but does so at a price, which has more than once been paid, of calamitous accident to the patient.

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THE House Committee of the London Hospital have agreed to recommend the appointment of a fifth assistant-physician and a fifth assistant-surgeon. The subject will be taken into consideration at a Special General Court of the Governors on August 4th.

WE understand that a Maritime Medical Congress is to be held at Havre during the fourth week of September, and that it will be glad to receive deputations from authorised scientific bodies. We may remind those who feel a pleasure in honouring the heroes of our art, alive or dead, that the unveiling of the statue of Laennec at Quimper will take place at about the same time.

DR. LEISHMAN has been appointed Professor of Midwifery in the University of Glasgow, to fill the chair occupied by the late Dr. Pagan. The appointment was in the hands of Mr. Gathorne Hardy, the Secretary of State for the Home Department.

WE understand that Mr. Heckstall Smith has withdrawn the motion of which he had given notice *in re* Bonney; Dr. Bonney having retired from the Association. Mr. Heckstall Smith has throughout this affair behaved, as is his wont, in the most high-minded and public-spirited manner.

CLINICAL INSTRUCTION IN SKIN-DISEASES.

IT is very desirable that the students of our medical schools should have opportunities afforded to them of studying skin-diseases in a more systematic manner than can be effected amongst out-patients, whose attendances are brief and often irregular. Six beds have been appropriated by Dr. Basham at the Westminster Hospital for special clinical instruction in these diseases—three for male, and three for female patients.

THE ALLEGED CASES OF CHOLERA.

THE result of our inquiries has induced us to doubt the authenticity of any of the "undoubted cases of Asiatic cholera" reported this week in London. We have seen the case, with the house-surgeon, reported from the Royal Free Hospital on Thursday as the "first decided case of Asiatic cholera," and may state that it never had any of the characteristic symptoms of that disease. There is, of course, a good deal of diarrhœa at all the hospitals; but, considering the extraordinary heat of the weather, it is by no means of a severe form.

THE HEALTH OF THE WIMBLEDON CAMP.

CONSIDERING the intense heat to which volunteers have been exposed on Wimbledon Common since the commencement of the meeting, there has been less sickness than might have been expected. In addition to the slight cases of sunstroke which have been attended to as out-patients, several were admitted into the hospital with symptoms of a more serious character. We are happy to say, however, that they are all doing well, or have already been discharged. We have only heard of one accident of any moment—that of a lady, who fell and fractured her forearm. The cases of diarrhœa are by no means unusually frequent or severe. This we doubt not is largely due to the excellent working of Moule's patent earth system, which has received a severe test during the hot weather, but has come through the ordeal in a manner which shows that its value on an occasion such as this is as great as the sanguine inventor could possible have expected. Altogether, the health of the camp has been fairly good, and the list is as yet free from any of the serious accidents which have occurred at several previous meetings.

NITROUS OXIDE AS AN ANÆSTHETIC.

THE employment of this gas is rapidly on the increase, and it is being now used by many of those who were opposed to its introduction, when we first drew attention to the importance of investigating its properties. Our contemporaries in the medical press, who attempted to suppress it, actively or passively, are now beginning to notice its employment in more favourable terms. It is being employed at the Dental, Middlesex, St. George's, St. Mary's, and other hospitals, and its use in private practice is becoming extensive, especially for dental purposes. Mr. Haynes Walton and Mr. Ernest Hart have been using it for various ophthalmic operations with success. Mr. Coleman has communicated to us, in a letter of some length, an account of a method by which he successfully purifies it for repeated use by passing the exhaled gas over lime, thereby reducing the cost per patient to about one-third. Mr. Clover has made many practical and excellent improvements in the form of inhaler. Dr. John Murray has continued the experiments with nitrogen as an anæsthetic, commenced by Dr. Sanderson and himself, and we hope soon to be able to publish a more detailed account of the important results obtained, to which we have already referred.

THE FRENCH LAWS OF LUNACY.

RECENT statements in the Corps Legislatif have confirmed the belief that the securities in France against detention of persons alleged but not proved to be lunatics are very insufficient. Two cases are referred to by a Paris correspondent, in which persons, whose names were mentioned in the House, had been so confined for annoying Ministers; and one in which a M. L. Sandon was confined, at the instance of M. Billault, the Minister of the Interior, at Charenton, as a dangerous lunatic, and released almost instantly after the Minister's death by order of his successor, M. Rouher, who gave him 10,000 *francs* compensation or hush-money from the public funds.

WATER-ANALYSIS.

THE circumstances attending the introduction of the new and valuable mode of water-analysis, to which we have recently called attention, appear to us to illustrate a deficiency of what we should consider proper professional etiquette among London chemists. As our readers well know, a new process for the detection of putrescible matter in drinking water was brought out by Wanklyn, Chapman, and Smith, about a year ago. The Royal Commission on Water-Supply required that a number of different natural waters, including the waters of the Cumberland lakes, should be examined by this new process, in addition to the usual process of analysis, and intrusted the entire examination to Drs. Frankland and Odling. At that time, the new process had not been published in full details, and was, in point of fact, only imperfectly known to chemists in general. Instead of consigning the first employment of the new process for public work to the discoverers of the process, or, at any rate, calling them to assist in that part of the examination, we find Drs. Frankland and Odling doing all the work themselves, and presenting the Royal Commission with upwards of a hundred analyses of water by the new method. Wanklyn, Chapman, and Smith, complain that these hundred analyses, which have thus received a kind of Government sanction, and are paid for by public money, are badly done, and calculated to injure the repute of the process; and also that the material advantage in the shape of pay, which they think ought to have come to them, has gone elsewhere. Although a great deal of water-analysis is done in the country for public purposes of one kind and another, and although the new process is now admitted to be indispensable, yet we understand that the discoverers have not hitherto reaped any benefit whatever; that having been reserved for those who have raised objections, which have been answered, and called for enlightenment, which has been accorded. *Sic vos non vobis.*

THE SUBORDINATE MEDICAL DEPARTMENT OF INDIA.

A WARRANT reorganising the subordinate medical department has been published. The modifications in the organisation of the service consist of the abolition of the grade of hospital steward in Bengal and Bombay, and the assimilation of that branch to the Madras practice, where the commissariat undertakes the purveying duties, through hospital purveyors. The present hospital stewards will be admitted as apothecaries on passing the examination within six months, or will be allowed the retiring pension of their grade as hospital stewards. The hospital purveyors will be divided into three classes, with salaries of 40 rupees, 30 rupees, and 20 rupees per month. The subordinate medical department is to be divided into two classes, denominated respectively apothecary and hospital assistant, the former to do duty with European troops, hospitals and depôts, and the latter with native troops and civil hospitals. The apothecaries will be divided into senior apothecaries, apothecaries, and assistant apothecaries, passed hospital apprentices and hospital apprentices, and, with the exception of the last, will rank as warrant officers above all non-commissioned officers. The grade of honorary assistant-surgeon will be given in future as a distinction, but forms no portion of the regular establishment. All apothecaries employed in other than military duties will be seconded, and promotion will follow in the next grade. The pay of a senior apothecary is to be 400 rupees per month, the other grades ranging from 200 rupees to 50 rupees, and the hospital apprentices from 30 rupees to 16 rupees per month. A field allowance of 30 rupees will be given to all the warrant grades when marching or in the field, and they will be supplied with free quarters and camp equipage. 30 rupees per month will also be given to an apothecary when in subordinate medical charge of the hospital of a British regiment or detachment, or a battery of artillery, or a depôt or sanitarium, or when attached to a general hospital or medical store depôt. The rates of furlough pay, invalid, and wound pensions have also been raised, as well as those for their widows. Before being placed in charge of a civil station, the regulated course of study in a medical college must be gone through, and the passing such an examination enables the apothecary to draw pay up to 600 rupees per month, when in independent charge of a native regiment. The honorary rank of assistant-surgeon is to be granted after twenty-five years' service in the warrant grades, in cases specially recommended. The provisions with regard to the hospital assistants are equally liberal.

DUST-BINS.

AN intolerable nuisance arises from dust-bins in the hot months of summer. It lies, according to the medical officer of Marylebone, more at the doors of the rich than the poor, and will probably continue to exist until the owners of some few of our aristocratic mansions are summoned before the magistrate and fined for causing a nuisance injurious to the health of their neighbours. A few days since his attention was called to an abomination of this kind at a large house in the neighbourhood. The occupant of the adjoining house, by whom the complaint was made, stated that whenever he went in or out of his own dwelling, his olfactory nerves were assailed by a most disgusting effluvium, which made him feel quite sick for a long time afterwards. The inspector, on visiting the premises, found the nuisance to proceed from the dust-bin, which contained a large quantity of both animal and vegetable refuse in a decomposing state, and which, to use his own words, "stank most horribly." Now this is but a slightly exaggerated description of the condition of scores of dust-bins in some of our most highly rented houses; and it is really a disgrace to the owners of them that so disgusting a nuisance, which is not only injurious to the health of the servants living in the basement, but also very annoying to the next door neighbours and passers by, should be permitted to exist. Under no circumstances ought the servants to be allowed to throw either animal or vegetable refuse into the dust-bin; the latter can easily be burned, unless the family be unusually large; it is only necessary to place it, when the process of cooking for the day is over, at the back of he kitchen fire, where, in an hour or two, it becomes perfectly dried, nd can be burned up in a few seconds without producing the slightest mell. In many families this is habitually done.

THE EXCESSIVE HEAT.

THE excessive heat, and the numerous fatalities which have attended it, make it necessary to call to mind that the hours of labour and modes recreation in this country may with advantage, and often with use, be modified during the excessive solar temperature. From six eleven A.M. are the favourite hours of work in India; and many of may, with great comfort and advantage, at present adopt them here. hildren should be allowed to sleep during the day, and should take eir exercise only in the morning and evening. This caution may be efully applied at the watering-places, whither townspeople are now t congregating. All this week, children might be seen sweltering ng the streets and on the hot beach of the most fashionable watering- ice near London, and we hear of much illness and two cases of sun- oke as the consequence. Inasmuch, too, as the heat begets thirst, it vell to remember that alcoholic liquors and high feeding are the great s of the burning sun in producing sunstroke. Sir Ranald Martin re- s, from his Indian experience, some striking examples of the effects enforced abstinence amongst troops in warding off the fatality from stroke on a burning march; and others, equally well marked, of the osite effects of indulgence. Light wines plentifully diluted, and ated waters, are the suitable drinks for this temperature; sulphuric acid lemonade is at once refreshing and an excellent prophylactic of diarrhœa. Colour is not nearly so efficacious in diminishing the discomfort of clothing as material; and a good large silk umbrella will save any one from sunstroke, and all from suffering when exposed of necessity to the rays of the sun. Houses should be kept shut during the heat of the day, and the windows or blinds wetted. In this way, any room may be kept comparatively cool, especially those exposed to the rays of the sun.

ALLEGED CURE OF A SNAKE-BITE.

THE REV. FATHER RAPHAEL, parish priest at Bettiah, Chumparun, relates, in a letter dated May 28th, the means which he employed to save the life of a girl, 10 years old, that had been bitten by a venomous snake.

"In the space of about ten minutes," he says, "she lost the power of speech, her eyes became bloodshot, and she was in a state of fearful and continued convulsions. Perceiving the dangerous state in which she was, I immediately took a small lump of alum, about the size of a pigeon's egg, dissolved the whole in a large glass of water, and at once made her drink it off. In a few minutes she began to be very sick, throwing up much matter from her stomach, when I again made her drink alum-water. This went on for about an hour and a half, during which time she must have consumed alum of about the size of a hen's egg, dissolved in two large bottles of water, the draughts being administered at short intervals after each vomiting. At the end of the time mentioned, the girl began to recover; and, within two hours' time, was able to stand up by herself, and again gained the use of her voice. After this I made her walk about a great deal, and now she is almost entirely cured."

DEATH FROM CHLOROFORM ADMINISTERED FOR THE AMPUTATION OF A FINGER.

A DEATH from the inhalation of chloroform has occurred at the Essex Lunatic Asylum, Warley. An inquest was held before C. C. Lewis, Esq., coroner. The patient was a man, aged 28, whose finger had to be amputated from recent injury. The quantity administered was, it was stated, only a drachm; and the verdict of the jury, after hearing the medical evidence, was—"That death resulted from convulsions; such convulsions resulting from fatty degeneracy of the heart." The stethoscope had disclosed no signs of this disease. The chloroform was administered on a handkerchief in three doses of twenty minims, and maintained during the operation. The patient became violently convulsed, and the pulse ceased. There was tubercle at the base of the brain; the heart was soft and fatty, the liver heavy and soft

EXTENSION OF THE CONTAGIOUS DISEASES ACT.

A PETITION of the Association for Promoting the Extension of the Act of 1866 to the Civil Population was recently presented to the House of Lords by Lord Nelson, and a similar one to the House of Commons by Mr. Mitford. Agitation has been going on in the provinces. The Mayor presided over a meeting of leading and influential persons at Bristol on the 26th ultimo, at which it was resolved to petition Parliament for the extension of the Act to Bristol, and also to establish a branch of the Association in that town. Dr. Symonds explained, in a very forcible speech, the magnitude of the evil which the Association strives to remove; and also the means which it is proposed shall be adopted for the purpose. Among the clergy who spoke was the Rev. J. Perceval, Head Master of Clifton College, and several others took an active part in the proceedings. On the 27th ultimo, a meeting of a similar character was held at Plymouth, with equally gratifying result. At Manchester, those interested in the movement have published and circulated among the townspeople of Manchester five thousand copies of a short summary of the information collected by the Contagious Diseases Act Extension Association, in preparation of a public meeting on the question. Thus Newcastle, Birmingham, Liverpool, Bristol, Gravesend, Bath, Plymouth, Reading, Cheltenham, and Cardiff, have all ventilated and discussed the expediency of instituting sanitary preventive measures among the civil population. Such measures have been pronounced in all these places highly necessary, and quite compatible with the true interests of morality. We congratulate the Association on the advance public opinion has made in the right direction; its further progress will be greatly expedited by the report and minutes of evidence which have been taken during the present session of Parliament by a Committee of Lords, and now laid before the public.

PROFESSIONAL ARBITRATION.

At the annual meeting of the Bath and Bristol Branch, Dr. Brabazon brought forward the following propositions for systematic arbitration in professional disputes.

"1. That, in each district of the British Medical Association, a Court of Appeal be constituted, to be called the District Court of Appeal; to consist of seven members, who must be resident in the district, including President, Vice-President, and Secretary. Members of the Court to be elected by ballot at each Annual Meeting of the District Branch.

"2. That a Central Court of Appeal be constituted, which shall meet in London, or in some other central position, at stated periods; to consist of seven members, including a President, Vice-President, and Secretary; such Court to be elected by ballot at each Annual General Meeting of the British Medical Association. Members of District Courts to be ineligible to serve on the Central Court of Appeal.

"3. That all cases of dispute or difference on points of medical etiquette be referred first to the District Court of Appeal, whose decision shall be final, provided that it be the decision of more than two-thirds of the Court.

"4. Should the decision of the District Court of Appeal be arrived at by less than two-thirds or only two-thirds of the Court, the case shall there be referred to the Central Court of Appeal, unless both contending parties be satisfied with the finding of the District Court; and the decision of the Central Court, being that of the majority, shall be final.

"5. That all members of the British Medical Association do bind themselves, severally and collectively, to adopt the foregoing course of adjusting such differences of opinion, and shall consider themselves in honour bound to adopt whatever course may be recommended by the Court or Courts of Appeal; and, moreover, to avoid any course, direct or indirect, which might give publicity to professional differences, either previously to, during, or after the investigation by the Court or Courts of Appeal.

"6. That members of the profession who may not be members of the British Medical Association, be advised and entitled to adopt the course before-mentioned, under similar circumstances.

"7. That any member of the British Medical Association, or any member of the profession, who, having submitted his case, shall refuse to adopt the course recommended by the Court or Courts of Appeal, shall be considered as having acted, dishonourably, dishonestly, and discreditably to the profession, and treated accordingly.

"8. That a section of the British Medical Association be formed to be called the Medico-Ethical Section, for the discussion of subjects connected with Medical Ethics, and for the purpose of establishing a code of laws and regulations, which shall serve as a guide in all matters of professional etiquette, and thus prevent much future misunderstanding."

THE SCOTCH ACT FOR THE REGISTRATION OF BIRTHS, DEATHS, AND MARRIAGES.

We observe with pleasure that our excellent contemporary, the *London Scotsman*, is protesting against the grievance under which members of the profession in Scotland labour by this Act as it now stands, and to which we have frequently called attention. The English Act simply requests medical men to sign certificates of death, to enable the Registrar-General to complete returns; while the Scotch Act renders this compulsory, under the threat of a severe penalty. A distinction such as this is most invidious. We are only surprised that our Scotch friends have allowed the matter to rest as it has done for sixteen years. Certainly, an attempt was made a few years ago in Parliament, when Mr. Moncrieff was Lord Advocate, to remedy the injustice; but it proved unsuccessful. We are, therefore, glad to see that the matter has been again taken up, and that there is a prospect of something being done. The Faculty in Glasgow met lately, and drew up a memorial to the present Lord Advocate, strongly opposing the Act, and pressing the matter upon him. The Lord Advocate has expressed a favourable opinion, but of course legislation in the matter is impossible this session. As it is probable that a change of Government will take place on the assembling of the new Parliament, it would be well for those who intend to vote for a representative in Parliament for the Universities of Glasgow and Aberdeen to ascertain beforehand what view Mr. Moncrieff takes of the matter, and what support he will give the profession in altering an Act so fraught with injustice.

TESTIMONIAL TO DR. JOHN HARLEY.

The circumstances attending the regrettable retirement of Dr. John Harley from present official connection with King's College Hospital and School were such as naturally suggested to his former friends and pupils the presentation of a testimonial expressive of their regret that, in the official *cadre*, room had not been found for one who had served them so well, and given so much time and labour for the benefit of the College. Accordingly a number of gentlemen, associates of King's College and former students of his class of Animal Physiology, met on the 17th instant at 78, Upper Berkeley Street, to present to him a perfect and beautiful copy, in silver, of the Cellini jug, "in testimony of their sincere regard, esteem, and regret, on the occasion of his retirement from King's College, London." The testimonial was accompanied by a suitable address on vellum.

OBJECTS OF INTEREST AT THE OXFORD MEETING.

We are informed that, at the *soirée* to be given by the President at the University Museum on Wednesday evening, August 5th, nearly a hundred microscopical preparations, illustrating Dr. Beale's anatomical and pathological researches, will be exhibited. The specimens will be arranged in order, and a full description of the facts demonstrated attached to each. The collection will include specimens of tissues from man and animals, at different ages, in health and disease; preparations showing the distribution of nerves in various tissues and their origin from cells in nerve-centres; specimens showing the arrangement of the ducts of the liver according to Dr. Beale's view, side by side with beautiful injections prepared by Frey of Zurich, supposed to demonstrate the truth of totally different conclusions; preparations of the kidney in health and disease; and numerous specimens of urinary deposits, including microscopic calculi. It is hoped that the preparations may be allowed to remain in their places during Thursday morning, so that any of them may be examined at leisure by those interested. Some of Mr. Bowman's original preparations of the kidney will be shown at the same time. These are of great historical interest to all anatomists. Dr. Beale's specimens will be fully described in a printed explanatory catalogue. The greater number of the microscopes required will be provided by Mr. Collins, of Great Titchfield Street, London.

PROPERT MEMORIAL FUND.

On July 13th, at 7 P.M., a general meeting of "old boys" of Epsom College was held at the Cannon Street Hotel, under the presidency of the Rev. Dr. Thornton, the head master of the College. There was a large attendance. After a statement of affairs had been read by one of the honorary secretaries, the following resolution was proposed by Mr. F. J. Marshall and seconded by Mr. Hemming, and was carried unanimously—"That this meeting considers that a library will be the most suitable form for this memorial to take." A Committee of Management, to make necessary arrangements for this object and to undertake the charge of the library when completed, was then formed, consisting of the Treasurer to the Fund, the Treasurer to the College, the Head Master, the Head Prefect, one of the old boys, and one of the Honorary Secretaries to the Fund. On the motion of Mr. G. M. Pretty, a cordial vote of thanks was given to the Committee and to the officers of the Fund, who had carried the affairs to so successful an issue in the face of several difficulties; and, after a vote of thanks to the Chairman, the meeting adjourned. Over £100 have been already collected, and about £300 more are either promised or confidently expected. Previously to the meeting, about forty of the old boys dined together; and a general feeling was expressed that the dinner should be made an annual institution.

THE OXFORD MEETING: ANNUAL MUSEUM.

We are authorised to state—in connection with the recent letter of Mr. Jonathan Hutchinson, suggesting the formation of an annual museum at the general meetings of the Association, for instruments, preparations, sketches, models, new drugs, etc.—that every facility will be given to any one wishing to exhibit such objects; and any one proposing to do so is requested to communicate with Dr. Gray, one of the Honorary Local Secretaries at Oxford.

ST. ANDREW'S MEDICAL GRADUATES' ASSOCIATION.

A general session of this Association was held at the Freemasons' Tavern, on Monday, July 20th; B. W. Richardson, M.D., F.R.S., President, in the Chair.

The President, on taking the chair, congratulated the members on the position in which their University was placed. Ten years ago, before the passing of the Medical Act, an attempt was made to exclude the University of St. Andrew's from representation in the Medical Council; but in an interview which he had had with Mr. Cowper, he had been able to remove the unfounded prejudices which existed. Lately, again, when it was proposed to give parliamentary representation to the Scottish Universities, the prejudices against St. Andrew's had been revived. In these circumstances, the Association had been formed; and the Graduates had gained not only the franchise, but also that which was at first scarcely hoped for—the right of sitting in the University Court.

The minutes of the last meeting were read and confirmed; and a number of new members, honorary members, and associates were elected.

A letter from Mr. Haviland, suggesting the formation of a school of State Medicine, was referred to the Council.

Dr. Sedgwick, the Honorary Secretary, read the report of Council. The report pointed out the necessity of continued united action on the part of the members, and stated that the Council had determined that the representative of the Universities of Edinburgh and St. Andrew's ought to be a medical man, and that the members of the Association should be recommended to support Dr. Richardson as a candidate.

Dr. Richardson then addressed the meeting, and intimated that, while not ambitious for a parliamentary life, he would stand as a candidate if selected by the members of the Association. But, inasmuch as a man who goes into Parliament honestly undertakes hard work, he would not undertake to pay a penny; nor would he countenance any expenses but those which were absolutely necessary. As to politics, he would enter Parliament as a member independent of all party, and support those measures which he thought good, from whomsoever they might come. He considered old foundations, that had been proved good, preferable to new ones which had not been proved.

Dr. Greenhalgh proposed, and Dr. Nicholls seconded, the adoption of the report.

Dr. Drysdale would have liked to hear some more definite statement from Dr. Richardson as to his political views; with regard, for instance, to civil and religious liberty, and to the disestablishment of the Church in Ireland. He would not vote for any one who would not support the disestablishment of the Irish Church; and he did not think Dr. Richardson sufficiently advanced in liberalism.

Dr. Shorthouse considered that what was wanted was a medical man to represent the profession in Parliament. It was of no consequence what his political opinions might be.

Dr. King objected to taking into their consideration the politics of any man put forward to represent the medical profession.

Dr. O'Connor asked, with reference to the candidature of Dr. Prosser James, whether he were a *boná fide* candidate for the representation of the Universities?

Dr. Prosser James replied that he was a *boná fide* candidate, and that he came forward as a party man, ready to support Mr. Gladstone and approve of the disestablishment of the Irish Church. The medical aspect of the question was the smallest part; medical men existed for society, not society for medical men.

Dr. Edwards Crisp said that general politics ought not to be considered. He thought that if two medical candidates came forward, neither would have any chance; and recommended that the candidate whose promises of support were found to be the least should retire.

Dr. Martin would not support any candidate who would vote for the disestablishment of the Irish Church.

Dr. O'Connor thought that Dr. Richardson was too late; and that the majority of promises was divided between Dr. Lyon Playfair and Mr. Swinton. The medical graduates of the St. Andrew's University could not enforce their views any more than those of Oxford or Cambridge. With regard to the qualifications of the candidates, he objected to Mr. Swinton that he was a Tory, and that his principal supporters were Professors Christison and Shairp, who had done all that they could to prevent the St. Andrew's graduates from having the franchise. Dr. Christison opposed everything that tended to reform in the profession. He asked the meeting to support Dr. Lyon Playfair, as an advocate of improvement and advance.

Dr. Joseph Rogers regretted that Dr. Richardson had not expressed more strong political views. He thought he was late in his candidature; but would support him if he came forward.

Dr. Sedgwick said that many graduates had promised their votes to Dr. Lyon Playfair under the mistaken idea that he was a medical man. He had had forty or fifty letters stating this. The cases of Oxford and Cambridge were not parallel to that of St. Andrew's; in the former Universities, there were but few medical graduates, while they formed the majority in those of Edinburgh and St. Andrew's.

Dr. Dudfield gave an account of the results that had attended the getting up of a requisition to Dr. Richardson. Above two hundred signatures had been obtained in a very few days, and the result was altogether encouraging. He thought that Dr. Richardson would be returned if the graduates would work unanimously.

Dr. Richardson said that, if he had come forward at an earlier period, the objects for which the Association worked would have been endangered. The disestablishment of the Irish Church was a new question; and he could not consent to taking a wedge out of the constitution without due inquiry. With reference to Dr. O'Connor's remarks, he must say, in justice to Mr. Swinton, that although that gentleman was at first opposed to the claims of the St. Andrew's graduates, he ultimately was led by conviction to use his influence, which was of value, in their favour.

The resolution for the adoption of the report was then carried *nem. con.*

On Tuesday, July 21st, the members visited the Church of Hempstead in Essex, where the remains of Harvey lie in the family vault.

THE LONDON COLLEGE OF PHYSICIANS.

At a meeting of the Comitia of the College of Physicians of London, on Tuesday last, the proposal to bestow *without examination* the licence of the College on registered medical practitioners of good standing and mature age, was withdrawn. There is, doubtless, a great wish—perhaps, almost unanimous—as far as we can judge by conversation, among the governing body of the College, to enrol among their ornaments many surgeons and general practitioners, who would mutually bestow and receive honour by this connection. But they feel strongly two difficulties; one is, lest in framing any general law on the subject the door should be opened to many over whose conduct they could exercise no control, and who, receiving more honour than they give, would be more pressing to be admitted than the desired candidates; and another is a feeling that injustice would be done to some five or six hundred licentiates who have entered the College by the established portals. These have, in many instances, made great sacrifices to add the licence of the College to their already acquired qualifications; some, the weight of upwards of fifty years has not deterred from the fight (one candidate, we happen to know, was over sixty when he passed); they have submitted to be questioned on their professional knowledge by men who, they must feel, have had less opportunities of experience than themselves; they have given up time and gainful practice to prepare for the struggle; and they have run the risk of possible rejection. The feelings of these men are worthy of all consideration, and we feel sure will receive it. Thirty were added to their number at this very Comitia. We have heard it suggested that the difficulties might be got over by the issue of a strictly limited number of honorary diplomas to certain gentlemen of high position desirous of the distinction, each case to come separately under the notice of the Comitia, and to be considered on its individual merits.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

The Thirty-sixth Annual Meeting of the British Medical Association will be held at Oxford, on Tuesday, Wednesday, Thursday, and Friday, the 4th, 5th, 6th, and 7th days of August next.

President—Wm. Stokes, M.D., D.C.L.Oxon., F.R.S., Regius Professor of Physic in the University of Dublin.

President-Elect—H. W. Acland, M.D. Oxon. & Dublin, LL.D., F.R.S., Regius Professor of Physic in the University of Oxford.

The Scientific Business will be conducted as follows.

1.—At General Meetings:

The President's Address.

Address in Medicine, by Dr. Gull.

Address in Physiology, by Professor Rolleston, F.R.S.

Paper on the Relations of Food to Force, by the Rev. Professor Haughton, F.R.S.

Report by Professor Bennett on Mercury; and Reports of Committees.

2.—At Meetings of Sections:

Section A. Medicine.—*President*, Sir Wm. Jenner, Bart., M.D., F.R.S. *Secretaries*, E. Long Fox, M.A., M.D.; William Roberts, M.D.

Section B. Physiology.—*President*, Professor Rolleston, M.D., F.R.S. *Secretaries*, W. S. Church, M.A., M.B.; Professor Beale, M.B., F.R.S.

Section C. Surgery.—*President*, James Paget, F.R.S. *Secretaries*, T. P. Teale, M.A., M.B.,; W. Stokes, jun., M.D.

Section D. Midwifery.—*President*, Sir C. Locock, Bart., M.D., F.R.S. *Secretaries*, James G. Wilson, M.D.; J. G. Swayne, M.D.

Section E. Public Medicine.—*President*, J. Simon, F.R.S. *Secretaries*, J. E. Morgan, M.A., M.D.; T. J. Dyke, F.R.C.S.

Papers shall not exceed *twenty* minutes. All subsequent speakers not to exceed *ten* minutes.

For information respecting the order of business, application may be made to either of the Secretaries of each Section respectively.

Tuesday, *August 4th*, 1868.

1 p.m.—Meeting of Committee of Council—Old Clarendon, Broad Street.

3 p.m.—Meeting of General Council—Convocation House.

8 p.m.—First General Meeting—Hall of Christ Church.—The retiring President, Professor Stokes, will resign his office.—The new President, Professor Acland, will deliver his Inaugural Address.—The Report of the Council will be read and discussed.—Election of General Secretary.—Election of Auditors.—Report of Medical Benevolent Fund.—Presentation of Hastings Medal.

Wednesday, *August 5th*.

8 a.m.—Breakfast of the Association at the Clarendon Hotel. Tickets (price 2s. 6d.) to be had at the Reception Room up to 10 p.m. on Tuesday night.

9.30 a.m.—Meeting of New Council—Convocation House.

10.30 a.m.—Honorary Degrees will be conferred in the Sheldonian Theatre.

11 a.m.—Second General Meeting—Divinity School.—The appointment of Place of Meeting in 1869, and of the President-elect, will be made.—The Report of Joint Committees of British Medical and Social Science Associations on Public Medicine.

12 noon.—Address in Physiology, by Professor Rolleston, F.R.S.

2 p.m.—Third General Meeting.—Divinity School—The Rev. Professor Haughton will read a paper on Sources of Vital and Mechanical Force derived from Food, and its influence on Medical Practice.

3 to 6 p.m.—Meetings of Sections—The Schools.—Sir W. Jenner will take the chair in Section A at 3.—Professor Rolleston will take the chair in Section B at 3. 30.—Mr. Paget will take the chair in Section C at 4.

8.30. p.m.—The President's Soirée at the University Museum.

Thursday, *August 6th*.

9.30 a.m.—Meeting of Committee on Registration of Disease.

10 a.m.—Fourth General Meeting—Divinity School.—Professor Hughes Bennett, M.D., will read the Report of the Committee on the Action of Mercury as a Cholagogue.

11.30 a.m.—Meetings of Sections—the Schools.—Mr. Simon will take the Chair in Section E.—Sections A and C.

2 p.m.—Fifth General Meeting—Divinity School.—Address in Medicine by W. W. Gull, M.D.

3 p.m.—Meetings of Sections—the Schools.—Sir Charles Locock will take the Chair in Section D.—Sections A and B.

7 p.m.—Dinner of the Association in the Hall of Christ Church. Tickets (price £1:1:0) to be had at the Reception Room only.

Friday, *August 7th*.

10 a.m.—Meetings of Sections—the Schools.

4 p.m.—Concluding General Meeting—Divinity School.

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary, at their earliest convenience. All papers should be in the hands either of the General Secretary, or of the President, on or before the 1st of August; and notice should be immediately given to one of the Secretaries of the Section to which the paper belongs.

A room in the Town Hall will be open as a Reception-room on Tuesday, August 4th, at 10 a.m., and on the following days at 8 a.m., for the issue of tickets to members, and for supplying lists and prices of lodgings, and other information. Members and others who require information with respect to the Meeting, are requested to make application in this room.

The General Post Office is under the Town Hall; the Telegraph Offices are at No. 117 in the High Street, 65 Cornmarket, and North Western Station.

The *Journal*, announcing the arrangements for each day, will be laid on the table of the Reception-room on Tuesday and the following mornings at 8 a.m. for distribution. Lists of members present will be issued as soon as possible after the commencement of the meeting, and will be placed in the same room for distribution. The member's ticket will contain a map of Oxford.

The Library, Writing Rooms, and News Rooms of the Oxford University Debating Society, in Frewen Court, Corn Market, will be open to all members of the Association during their stay.

Objects of interest in Oxford and the neighbourhood:—the Colleges; Bodleian Library; Radcliffe Library; Museum; University Press; University Galleries; Physic Garden; Christ Church Meadows; Observatory; Infirmary; Model Lodging Houses, St. Thomas'; Mr. Maclaren's Gymnasium; County Lunatic Asylum; Blenheim; Nuneham.

All Gentlemen intending to visit Oxford during the Meeting, are requested to send their Names, without delay, to E. Chapman, Esq., M.A., Frewen Hall, Oxford.

Notices.—The following notices of motion have been given.

The Secretary: To alter Law XIV by adding, "provided he shall have the votes of three-fourths of those present at such meeting."

Dr. Davey: To alter Law VIII, by substituting the word "twenty" for "ten" members, to be elected members of the Committee of Council.

Dr. Alexander Henry: "That the following be substituted for Law III; viz., The Association shall consist of Ordinary Members, being duly qualified members of the Medical Profession, and of Honorary Members having the qualifications described in Law XVIII." "That the following be substituted for Law XVIII; viz., Honorary Members may be elected by the Association at an Annual Meeting, on the recommendation of the Council. The following classes of persons shall be eligible: *a.* Members of the Medical Profession, of scientific eminence, residing in the United Kingdom, or in the Colonies or Foreign Countries; *b.* Gentlemen resident in the United Kingdom, or in the Colonies or in Foreign Countries, not belonging to the Medical Profession, but distinguished in Sanitary or in Physical Science; *c.* Gentlemen who may have rendered distinguished service to the Association. Honorary Members shall not be entitled to any further privilege than that of attendance at the Annual Meetings, and to the receipt by any such Member of copies of any memoir or communication of his printed by the Association."

The Rev. Dr. Bell: "That it is desirable to secure a Local Treasurer for the District of each Branch Association (the Secretary or Treasurer of the Branch might be the best suited if it could be so arranged), to whom the Subscriptions of Members might be paid; and that the gross amounts received should be forwarded to the General Treasurer, and not to the General Secretary, as is now done; and that the list of paid Subscriptions might be published in the Journal, instead of separate receipts being given."

Papers, *etc.*, have been promised from:

M. A. Adams, F.R.C.S. (Maidstone): A New Instrument for investigating the Field of Vision.

J. Althaus, M.D. (London): Bilateral Anæsthesia of the Fifth Cerebral Nerve.

F. E. Anstie, M.D. (London): Visceral Neuralgia.

E. Ballard, M.D. (London): A National System of Registration of Sickness, apart from the Registration of Deaths.

R. Barnes, M.D. (London): The Diagnosis of Early Pregnancy.

J. Birkett, F.R.C.S. (London): The Mortality arising from Abdominal Hernia; with Suggestions for its Diminution.

W. T. Black, Surgeon-Major Royal Army (Aberdeen): The Sanitary Condition of Hong Kong during the Epidemic in 1865.

T. Bryant, F.R.C.S. (London): Impacted Fracture of the Neck of the Thigh-bone, more particularly in reference to its Diagnosis; with Cases.

T. Bryant, F.R.C.S.: Effect of Torsion on Blood-Vessels.

T. King Chambers, M.D. (London): How shall we make our Daily Experience advance Science?

J. Chiene, M.D. (Edinburgh): Complete Obliteration of the Cœliac Axis and Mesenteric Vessels, consequent on Disease of the Abdominal Aorta.

J. T. Clover, F.R.C.S., (London): The Administration of Nitrous Oxide as an Anæsthetic.

M. H. Collis, M.B. (Dublin): Contributions to Plastic Surgery.

M. H. Collis, M.B.: Operations for Tumours in the Nasal Cavities.

F. R. Cruise, M.D. (Dublin): The Endoscope; with Illustrations.

H. Dobell, M.D. (London): On the Mode of Admission to Hospitals.

C. R. Drysdale, M.D. (London), and R. W. Dunn, M.R.C.S. (London): A few Syphilitic Cases treated without Mercury.

C. R. Drysdale, M.D. (London): The Prevention of Venereal Diseases.

C. R. Drysdale, M.D.: One State Degree, and Competitive Examination for all Public Appointments.

P. Eade, M.D. (Norwich): The Etiology of Phthisis.

B. W. Foster, M.D. (Birmingham): The Administration of Sulphuric Ether with Cod-liver Oil in Phthisis.

E. Long Fox, M.D. (Clifton): The Relation of the Secretion of Phosphoric Acid to Temperature in Certain Conditions of the Nervous System.

Tilbury Fox, M.D. (London): Contagious Impetigo.

Sampson Gamgee, F.R.S.Ed. (Birmingham): Rest, Position, and Pressure; with Special Reference to the Treatment of Fractures of the Limbs.

W. Hardwicke, M.D. (London): Public Mortuaries in Large Towns.

T. Hayden, F.K.Q.C.P. (Dublin): The Differential Diagnosis and Significance of certain Endocardial Murmurs.

T. P. Heslop, M.D. (Birmingham): The System of Admission prevailing in Hospitals.

Graily Hewitt, M.D. (London): The Treatment of Uterine Flexions.

J. Braxton Hicks, M.D., F.R.S. (London): Transfusion of Blood in Hæmorrhage; with a Description of a new Mode of Management.

J. Higginbottom, F.R.C.S., F.R.S. (Nottingham): Ipecacuanha in Emetic Doses, as a Stimulant, Restorative, Eliminative, and Adjuvant, in various cases of Disorder and Disease.

Berkeley Hill, F.R.C.S. (London): The Prevention of Venereal Disease.

G. M. Humphry, M.D., F.R.S. (Cambridge): Torsion of Arteries.

G. M. Humphry, M.D., F.R.S.: On some Forms of Growth.

J. I. Ikin, F.R.C.S. (Leeds): The Comparative Results of the Inspection of Recruits for the Public Service by Military and Civil Surgeons; and the Regulations drawn up for the Guidance of Medical Men.

V. Jackson, M.R.C.S. (Wolverhampton): Case of Removal of the Arm at the Shoulder-Joint, with Excision of the Scapula.

G. Johnson, M.D. (London): Blood-letting, Heat and Cold, and Irritants, in the Treatment of Disease.

G. Johnson, M.D.: Microscopic Specimens and Drawings of Hypertrophied Arteries in Chronic Bright's Disease.

Furneaux Jordan, F.R.C.S. (Birmingham): The Treatment of Acute Orchitis.

H. Kennedy, A.B., M.B. (Dublin): Reasons for the Abandonment of Venesection in the Treatment of Disease.

G. H. Kidd, M.D. (Dublin): Intrauterine Polypi.

E. Lankester, M.D., F.R.S. (London): Prison and Workhouse Dietary.

T. Laycock, M.D., F.R.S.Ed. (Edinburgh): Suggestions for Improving the present unsatisfactory state of the Law in regard to persons labouring under Mental Disorders and Defects.

P. C. Little, F.R.C.S.I. (Dublin): Concussion of the Brain and Spine; with Cases.

R. McDonnell, A.B., M.D. (Dublin): The respective Claims of Bell and Magendie to the Discovery of the Functions of the Roots of the Spinal Nerves.

R. McDonnell, A.B., M.D.: Observations on Traumatic Fever.

E. D. Mapother, M.D. (Dublin): The Appointment of District Physicians, to whom all Public Medical Functions should be entrusted.

R. Martin, M.D. (Warrington): Intemperance as a Factor in the Production of Epidemic Disease.

G. May, jun., M.B., F.R.C.S. (Reading): Aneurism of the Innominate Artery, treated by Acupressure of the Carotid and Brachial.

W. Moore, M.D. (Dublin): Non-Symmetrical Dropsies.

J. E. Morgan, M.A., M.D. (Manchester): Town-life among the Poorest; the Air they breathe and the Houses they inhabit.

C. A. Newnham, M.R.C.S. (Wolverhampton): The Remuneration for Medical Attendance on Sick Clubs, etc.

T. Nunneley, F.R.C.S. (Leeds): Cases illustrative of the Surgery of the Ankle-joint.

J. W. Ogle, M.A., M.D. (London): Paraplegia, independent of Disease primarily affecting the Spinal Cord; including Cases of Cerebral Origin.

J. W. Ogle, M.A., M.D.: Syphilitic Affections of the Nervous System.

F. Oppert, M.D. (London): Medical Education in England and abroad compared.

J. Paget, F.R.C.S., F.R.S. (London): Stammering with other Organs than those of Speech.

A. Ransome, M.B., A.M. (Bowden): Epidemics studied by Means of Statistics of Disease.

W. Rendle, M.R.C.S. (London): The Residential State of the Poorer Classes of Inhabitants of the Kingdom, with Reference to Health and the Complementary Conditions.

J. Russell Reynolds, M.D. (London): Some Affections of the Vaso-motor System of Nerves.

D. Ll. Roberts, M.D. (Manchester): Two cases of Ovariotomy in which Pregnancy subsequently occurred.

W. Roberts, M.D. (Manchester): Exploration and Tapping.

Hyde Salter, M.D., F.R.S. (London): The Diagnosis of the Different Varieties of Dyspnœa.

A. E. Sansom, M.D. (London): Anæsthesia, and the Action of Anæsthetics.

J. Marion Sims, M.D. (Paris):

Protheroe Smith, M.D. (London): Bromide and Bibromide of Mercury as Therapeutic Agents.

Protheroe Smith, M.D. (London): A Successful Method of Treating Flections of the Uterus by Means of an Elastic Pessary.

T. Smith, F.R.C.S. (London): The Treatment of Stone in Boys.

F. Symonds, F.R.C.S. (Oxford): A Case of Gangrene of the Leg, probably dependent on Embolism of the Femoral Artery.

G. Southam, F.R.C.S. (Manchester): The Results of the Operations for Lithotomy performed at the Manchester Royal Infirmary.

J. K. Spender, M.B. (Bath): Some Points in the Pathology and Treatment of Capillary Bronchitis.

H. Stear, M.R.C.S. (Saffron Walden): The Propriety of the Appointment of a Committee to draw up a Recommendatory Tariff of Medical Fees.

W. Stokes, jun., M.D. (Dublin): Periosteal Preservation in Operative Surgery.

W. Strange, M.D. (Worcester): The Pathology and Treatment of Disorders of the Nervous System accompanied by Excess of Motility.

W. P. Swain, F.R.C.S. (Devonport): A New Plan of Treating Talipes Varus, in which the Rotation of the Foot anterior to the Astragalo-Scaphoidal Axis is very great.

J. G. Swayne, M.D. (Clifton): The Treatment of Puerperal Convulsions.

H. Swete, M.R.C.S. (Weston-super-Mare): The Importance of obtaining Correct Comparative Observations in Estimating the Influence of Light in Health and Disease; illustrated by the Actinograph.

C. Taylor, M.D. (Nottingham): Further Observations on an Improved Method of Extracting in Cases of Cataract.

T. P. Teale, M.B., F.R.C.S. (Leeds): Atrophy induced by Cicatrix, and its Surgical Value.

H. M. Tuckwell, M.D. (Oxford): Remarks on Villous Tumour of the Rectum, and the Resemblance that it may bear in its Symptoms to Chronic Dysentery: illustrated by Two Cases.

J. Tufnell, F.R.C.S.I. (Dublin): The Cure of Internal Aneurism.

Spencer Wells, F.R.C.S. (London): Improved Methods of Exposing Vesico-Vaginal Fistula.

C. G. Wheelhouse, F.R.C.S. (Leeds): A Case of Distended Pericardium, threatening Immediate Death, relieved by Paracentesis.

E. Wilson, F.R.C.S., F.R.S. (London): The Influence of Shock in the Production of Cutaneous Disease.

A. Wiltshire, M.D. (London), and W. T. Watson, M.D. (London): A Case of Ovariotomy during Acute Peritonitis: Recovery.

F. Winslow, M.D., D.C.L. (London): The Incipient Symptoms of Softening of the Brain.

E. Woakes, M.D. (Luton): Ergot of Rye in the Treatment of Neuralgia.

J. R. Wolfe, M.D. (Aberdeen): The Removal of Cancer by Caustic Arrows and Carbolic Acid.

T. Watkin Williams, F.R.C.S., *General Secretary.*

13, Newhall Street, Birmingham, July 1868.

YORKSHIRE BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held in the theatre of the Medical School, Leeds, on Thursday, July 9th; J. D. Heaton, Esq., M.D., President, in the chair.

After noticing the death of some members of the Branch since their last meeting, and drawing attention to the recent completion of the noble Infirmary at present temporarily occupied as the National Art Exhibition in Leeds, Dr. Heaton dwelt upon the progress which had taken place in the knowledge of the diagnosis of disease, aided by various ingenious instruments of precision, and the more minute investigations of morbid anatomy. He contrasted this with the uncertainty and differences of opinion still prevailing in questions of therapeutics, both as to the treatment of inflammatory and other acute diseases, and as to the properties of some of the most familiar remedies, as illustrated by the merely negative results obtained by the Edinburgh Committee appointed to investigate the influence of mercury upon the secretion of bile. But here also some real improvement and advance might be recognised, both in the milder plans of treatment and in the greater reliance upon the tendency of living bodies spontaneously to restore the equilibrium of health, when placed in the most advantageous circumstances; and in the more exact knowledge, gradually being established by careful experiment, of the action of particular agents upon the various secreting and other organs, as well as in the discovery of new remedies of acknowledged value. He also made some remarks upon various matters of State Medicine at present occupying the minds of the profession and of the public, especially medical education and examinations for certificates of proficiency. He said that the great object of the joint action of these two provisions was to ensure the competency of all those who were allowed to pass within the portals of the profession; and that, in proportion as the art of examination was cultivated and improved, and examinations became thereby a more real test of the candidate's practical ability, as distinguished from superficial and evanescent knowledge, in the same proportion would the necessity for a precise and relentless curriculum of study become less urgent. He enforced the advantages of personal assistance to students at the bedside, and to guide their studies, in addition to professional teaching in the lecture-room; and remarked upon the importance of the question of medical education. Dr. Heaton concluded by expressing the hope that, when the general meeting of the Association is held, as is intended, in Leeds, next year, the men of Yorkshire, and especially those of Leeds, will take good care that it fall not behind the examples of Dublin and Oxford, in warm-hearted hospitality, in learning, and in every other element of complete success.

Report of Council.—Dr. Procter, the Honorary Secretary, read the following Report.

"On presenting their Annual Report, the Council of the Yorkshire Branch of the British Medical Association have to congratulate the members on assembling in this important manufacturing town. Leeds has to this Association great points of interest which are separate from its commercial character, arising from the connection it has held with the names of men who have given the highest reputation to the place which was the scene of their labours. It is, moreover, an important seat of medical education; and the magnificent hospital which has lately been erected must, from its extensive accommodation, coupled with the character of the district in which it is situated, furnish extensive means for medical and surgical observation, and therefore add to the extension of medical knowledge.

"In the events of the past year, much has been transacted which is of the highest importance to the medical practitioner. A great work of the Medical Council has been the reproduction of the *British Pharmacopœia* in a form and in a manner highly creditable to both the science and the practical experience of that body; and, in effecting this object, the compilers have shown a desire to avail themselves of the most recent advances which have been made in Chemistry and Therapeutics. The Medical Department of the Privy Council, under the presidency of Mr. Simon, has diligently pursued the object for which it was instituted, and has been energetic in endeavouring to raise the standard of public health. In this direction, it is to be trusted that the importance of Medical Sanitary Inspection will be impressed upon the consideration of local Boards of Health; that attention will be paid to the habitations of the lower classes; and that a comprehensive scheme will be devised to improve the houses of the poor with due regard to sanitary accompaniments. The existence and cultivation of this department shews an increasing disposition on the parts of successive governments to recognise the importance of medical science, and the necessity which exists for creating a department of State Medicine. This feeling is reciprocated by the British Medical Association, and exemplified in the fact that, for the first time, at the meeting this year at Oxford, a new section, that of State Medicine, has been formed and set apart for the discussion of questions of medical policy and medical ethics, as well as public hygiene and medical jurisprudence.

"Workhouse reform has occupied to a considerable extent the attention of both the public and the profession. The mismanagement of these institutions seems to have been as great in the country as in town; and, although the Metropolitan Poor Bill has become law, much remains to be done to improve generally the condition of these establishments, and to amend the reprehensible state of things which has been made public. It may, therefore, be worthy the attention of this Association to consider, amongst other methods, whether the more general appointment of resident medical officers, coupled with the establishment of the dispensary system in large towns, might not at least assist in remedying the complaints which have been too often made on just grounds. This subject affects individually a large number of the members, and, as a sanitary question, the whole body; and therefore demands the careful consideration of this Association.

"A large proportion of the members of the Yorkshire Branch of the British Medical Association are essentially interested in the question of increased remuneration to the Medical Officers of Clubs, a question widely agitated by the Birmingham and Midland Counties Branch. The issue of this agitation is not confined simply to those who are engaged in attendance at clubs; it has a wider significance. Every practitioner of medicine is more or less interested in the result; for a proper remuneration to the former would produce an effect beneficial to the whole body of the profession. Cheap medical attendance has a tendency to lower the status of the medical man in popular opinion, gives rise to unfair comparisons of a pecuniary character, and causes an estimate to be set upon his services below their proper and just importance. But let the working classes attach to medical services that value which they may justly claim, and the same feeling will extend to every portion of the community. In order that this matter may be carried out to its full extent, everything depends upon individual exertion, with due regard to professional honour and social status. If the motto 'union is strength' be adopted, and, at the same time, the just demands of the practitioner be insisted upon with firmness, the result is certain.

"The protracted discussion on the Reform Bills has furnished the Home Secretary with the plea of multiplicity of occupation, and thus he has been prevented from undertaking these Bills which immediately affect the interests of the profession. Little progress has therefore been made with them. In the provisions of the Medical Bill, the Association and its Branches, by reason of their influence and importance, must of necessity take a prominent part by endeavouring to make as stringent as possible the desirable portions of this Bill, especially in relation to the assumption of fraudulent medical titles, and the suppression of persons practising with illegal or no qualification.

"The provisions of the amended Representation Bills have increased the representation of the profession by allotting one member to the University of London, one to the University of Glasgow and Aberdeen, and one to those of Edinburgh and St. Andrews. With these additions in relation to its importance and influence, and compared with other classes, the profession will still be very inadequately represented. This feeling has for a long time been general, and a scheme was therefore agitated, which had for its object the distinct and separate representation of medical practitioners; but the Committee on Parliamentary Bills state that, 'in the absence of adequate support from the heads and interest in the great body of the profession, they did not feel warranted in pressing the claim on the attention of the Government.'

"While on the subject of representation, there is another matter which your Council think worthy the attention of this Branch of the Association. It has long been felt that the interests of the profession at large were totally unrepresented in the Medical Council; and an attempt has been made to obtain that right, and a representation of our interests in that body. The result is of so recent a date, and the proceedings on the occasion are so fully reported in our Journal, that it is unnecessary to say more than that, by a large majority, the Medical Council came to the conclusion that, under present circumstances, it was not expedient to consider the question of attempting to obtain a change of constitution.

"Meeting in any place, but in Leeds especially, your Council feel it their bounden duty to express their deep regret at the loss which the Association has sustained by the decease of their late eminent members, Mr. Samuel Smith and Mr. Teale. They were distinguished for comprehensive surgical knowledge, acute powers of investigation, and wide medical attainments, which placed them in the highest rank amongst British surgeons. Whilst these qualities have made their loss one to be felt by the whole body of the profession to which they belonged, they possessed in addition those social and intellectual characteristics which endeared them to the many who were ranked as personal friends. By the death of Dr. Kennion, this Branch is deprived of another useful member, and of one whose loss will be deeply regretted in the district in which he practised.

"In consequence of these deaths, vacancies are left in the representations in the General Council, and in the Leeds Council of the Branch. For the former your Council beg to suggest the names of Dr. Chadwick and Mr. T. P. Teale; and for the latter the names of Dr. Chadwick, Mr. Wheelhouse, and Mr. T. P. Teale; and also to substitute the name of Mr. Benson in the place of Dr. Aveling for Sheffield.

"Your Council have to announce that Mr. North has resigned the office of Secretary, the duties of which office he has for some time most ably fulfilled; and as his successor could not be legally appointed until this meeting, Dr. Procter has consented temporarily to fill the vacant office.

"Your Council desire to record their thanks to Dr. Hall for the services which he has rendered to the Branch as President; and would recommend that Dr. Matterson, of York, be elected President for 1869 and 1870; York being, in accordance with the accustomed rotation, the next place of meeting.

"Intimately connected with the affairs directly affecting the Association is the Journal, which is now well worthy the body of which it is the literary representative; and the greatest credit is due to the editor, Mr. Ernest Hart, for the talent, ability, and energy with which it is conducted. The articles are to be admired, not alone for their independent spirit, but likewise for the wide range embraced by them, coupled with the novelty of the medical and allied scientific subjects. These characters, with the judgment shown in the selection of lectures and papers, place this Journal in the first rank of medical publications.

"The present number of members of this and the East Riding Branch is under two hundred. The members of the profession within the same range is about one thousand. Looking at their numbers, it will be seen that the proportion who have availed themselves of the advantages of our Association is very limited; and your Council would conclude by endeavouring to impress upon the members the necessity which exists for individual exertion in order that our ranks may be increased, our scientific value made more extensive, and our claims to be considered a corporate body founded upon a broad and wide basis. The amalgamation of the entire profession into one body is the most certain means of destroying that want of unanimity which does occasionally exist amongst the practitioners of medicine, and of effecting those changes necessary for their protection, and the support of their dignity as professional men and gentlemen. That social intercourse which it is one of the aims of the Association to cultivate must, by exciting intercommunion and friendly feeling, be a great means of bringing about this most desirable object. The results we seek to attain are simple and honourable; they are to strengthen a noble profession for all good purposes, and to give to it additional usefulness, to assist in the cultivation and advancement of that art, which has for its high endeavour the relief of human suffering and misery and the promotion amongst our brethren of kind and friendly feelings. Here, then, is opened out to practitioners of medicine a wide field as well for the exercise of zeal and talent as for benevolent and generous feelings, and with the additional advantage that, by a corporate body, much will be effected which is beyond the reach of the most ardent solitary and unassisted effort."

Mr. Teale moved, and Dr. Matterson seconded the adoption of the Report, which was unanimously agreed to.

President.—It was proposed by Dr. Chadwick, and seconded by Mr. Dodsworth,—"That Dr. Matterson be elected President for 1869-70, and that the next meeting be held at York."

A vote of thanks, proposed by Dr. Shann, and seconded by Mr. Witten, was then given to the retiring President, Dr. Hall.

Council.—The following gentlemen were elected as Representatives n the General Council:—C. Chadwick, M.D. (Leeds); J. C. Hall, M.D. (Sheffield); J. D. Heaton, M.D. (Leeds); W. D. Husband, Esq. (York); W. Matterson, M.D. (York); T. Nunneley, Esq. (Leeds); T. P. Teale, Esq. (Leeds); L. C. G. Wheelhouse, Esq. (Leeds); and W. Procter, M.D. (York), Secretary, *ex-officio*.

The following gentlemen were elected as Council of the Branch:—B. Dodsworth, Esq.; W. D. Husband, Esq.; H. Keyworth, Esq.; W. Matterson, M.D.; G. Shann, M.D.; C. Williams, M.D. (York); C. Chadwick, M.D.; J. D. Heaton, M.D.; W. Hey, Esq.; S. Hey, Esq.; T. Nunneley, Esq.; T. P. Teale, Esq.; C. G. Wheelhouse, Esq. (Leeds); J. Benson, Esq.; W. Favell, Esq.; J. C. Hall, M.D.; J. Haxworth, Esq. (Sheffield); J. Ness, Esq. (Helmsley).

Secretary.—It was proposed by Dr. Hall, and seconded by Mr. Nunneley,—"That Dr. Procter be elected as Secretary." The motion was carried unanimously.

New Members.—Thirty-nine new members were admitted.

Papers.—The following papers were then read:—Mr. Witten, on Separation of the Lower Epiphysis of the Humerus: its Diagnosis and Treatment. Dr. Allbutt made some remarks on Wasting Palsy, and introduced a case to the notice of the meeting. Dr. Braithwaite read a paper on the use of Galvanism in certain cases of Neuralgia.

Dinner.—About thirty members dined at the Midland Station Hotel after the meeting.

BATH AND BRISTOL BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held at the Mineral Water Hospital, Bath, on Thursday, July 9th, at 4.50 P.M. The Chair having been taken by R. W. Coe, Esq., President of the past year, the minutes of the last annual meeting were read by the Bristol Secretary, Mr. Steele, and confirmed. After a few remarks, Mr. Coe resigned the Chair to R. N. Stone, Esq., President for the ensuing year, who read an address.

Dr. Swayne proposed, and Dr. Barrett seconded, a vote of thanks to Mr. Stone for his address; expressing a wish that the topics to which he had alluded should form the subject of subsequent discussion.

New Members.—Messrs. E. Martin and T. O. Mayor were proposed for election, and will be balloted for at the next ordinary meeting.

Report of Council.—The following Report was read.

"Your Council, in presenting the twenty-seventh Report, have very much pleasure in being able to inform you that the Branch has received a considerable accession of strength during the past year—due, no doubt, very much to the frequent and agreeable meetings of the Branch, and also to the admirable management of the Journal, under the able editorship of Mr. Ernest Hart. During the past season, twenty-seven new members were elected, and eight removals have occurred, leaving a total increase of nineteen, the Branch now having 168 members. Thus the privilege of electing an additional representative member of Council is conferred on the Branch.

"The Branch has not this year to mourn the death of any member; but one of their old and active associates, Mr. Colborne of Chippenham, who retired from practice some years since, has lately died; and the Council feel that they ought not to pass over this event in silence.

"The Council have pleasure in reporting the great success attending the more frequent meetings of the Branch. The average attendance has been greater than in any previous year; subjects for discussion have been freely contributed; and the discussions have been animated. Nineteen papers have been read at the meetings this session.

"The financial statement exhibits a slight improvement; and your Council anticipate that the increased subscription (due this year) will relieve the Branch of all liabilities. The balance-sheet for the year ending December 31st, 1867, stands thus:

Receipts.				*Expenditure.*			
142 subscriptions .	24	17	0	Owing to Secretaries January. 1st . .	3	19	11
Leaving a balance due to Secretaries of .	3	5	2	Expenses of Branch .	24	2	3
	28	2	2		28	2	2

"*Amendment of the Medical Act.*—Two meetings of the Committee appointed at your last annual meeting have lately been held; but, in consideration of the state of public business, your Council have not deemed it advisable to present any petition to Parliament, especially as the sitting of the General Medical Council has just commenced. Your Council recommend that the Committee should be reappointed, and should embrace any opportunity for furthering the improvement of the Medical Act.

"*Amendment of Sanitary Laws.*—The Committee appointed at the last annual meeting have met, and drawn up the following petition, which they have forwarded to the Lords of the Privy Council.

"'May it please your Lordships,—We, the undersigned members of the Sanitary Committee appointed by the Bath and Bristol Branch of the British Medical Association, beg to ask your Lordships' earnest consideration to a memorial 'to promote a better administration of the laws relating to registration (of the causes of sickness and death), medico-legal inquiries, and the improvement of the public health," which was laid before you on the 22nd day of May last by the joint Committees of the British Medical and the Social Science Associations, and we respectfully but earnestly support the prayer of the said memorial.

"'We further beg to call your Lordships' attention to the urgent necessity which we feel to exist for new legislative enactments for the following purposes:—1. To make it compulsory on local authorities to enforce the legislative provisions already made for the removal of nuisances, especially smoke, arising from manufactories and other establishments in crowded localities. 2. To compel local authorities to carry out the different sections of the Sanitary Act which permit them to provide hospitals for persons sick of infectious diseases, and carriages for the removal of such infected persons; to make provision for the speedy burial of persons dead of infectious disease; and to provide means for the disinfection of all infected articles. 3. To make it compulsory on local authorities to adopt bye-laws, under the thirty-fifth section of the Sanitary Act, for the improvement of houses inhabited by more than one family. 4. To render the appointment compulsory of an officer of health under the Public Health Act in all towns having twenty thousand inhabitants; and that he be a duly registered medical practitioner. 5. To authorise the extension to the civil population of large towns of the beneficent provisions of the Contagious Diseases Act.

"'We have the honour to remain your Lordships' most obedient servants.—ROBERT W. COE, *President;* W. BIRD HERAPATH, M.D., F.R.S.; J. G. SWAYNE, M.D.'

"The Council again beg to urge the claims of the Medical Benevolent Fund upon your charitable consideration. The unostentatious yet speedy relief afforded by its aid, in cases of pressing necessity, among the members of our profession and their families, cannot be too highly commended.

"The scrutineers, appointed by your Council to examine the ballot-papers for filling up vacancies in the Council, report the following to have been elected:—*Bath:* R. W. Falconer, M.D.; J. S. Bartrum, Esq.; J. Lawrence, Esq.; E. Skeate, Esq.; and W. Colborne, M.D., of Chippenham. *Bristol:* W. Budd, M.D.; W. M. Clarke, Esq.; J. A. Symonds, M.D.; and H. Marshall, M.D."

Resolutions.—The following resolutions were proposed and carried.

1. Moved by Mr. BARTRUM, seconded by Mr. LEONARD, and carried unanimously—"That the Report of Council now read be received and adopted."

2. Dr. SWAYNE proposed, and Dr. FALCONER seconded, an alteration of the second Rule of the Branch; but the following amendment, proposed by Mr. COLLINS, and seconded by Mr. COE, was carried by a majority:—"That any gentleman wishing to join this Branch shall be proposed and seconded at any ordinary meeting; his Christian and surname, residence, and professional titles, being given in writing to the Secretaries. The circular convening the subsequent meeting, at which the election shall take place, shall contain the above particulars, together with the names and residences of his proposer and seconder; and shall be circulated at least ten clear days before such meeting. The voting shall be by show of hands; one adverse vote in ten to disqualify the candidate. N.B. No candidate to be present during the election."

3. Moved by Mr. PRICHARD, seconded by Dr. DAVEY, and carried unanimously—"That C. H. Collins, Esq., of Chew Magna, be the President-elect for the ensuing year."

4. Proposed by Dr. HERAPATH, seconded by Mr. C. H. COLLINS, and carried unanimously—"That the best thanks of the Branch are due, and be presented, to R. W. Coe, Esq., for his able conduct in the chair; and to the members of Council for the past year, for their management of the affairs of the Branch."

5. Mr. COE proposed, and Mr. SKEATE seconded, a vote of thanks to the Secretaries, Messrs. R. S. Fowler and C. Steele; and requested their continuance in office as Honorary Secretaries for the ensuing year.

Representatives in the General Council.—The following gentlemen were elected Representatives of the Branch in the General Council of the Association:—W. J. Church, Esq.; W. M. Clarke, Esq.; R. W. Coe, Esq.; J. G. Davey, M.D.; H. Marshall, M.D.; E. Skeate, Esq.; R. N. Stone, Esq.; and J. G. Swayne, M.D.

District Court of Appeal.—It was moved by Dr. BRABAZON, and seconded by Dr. HENSLEY—"That this meeting, having in view the establishment of professional unanimity, and the upholding of professional social status, strongly recommend that a court of appeal for the adjustment of differences of opinion on points of medical etiquette be established, in common with the Bath and Bristol Branch of the British Medical Association, to be called the District Court of Appeal, to be composed of members resident in the district, who shall be elected annually by ballot; and that all members of this Branch shall consider themselves bound to adopt this mode of settling professional differences; and shall consider themselves in honour bound to abide by the decision of the District Court of Appeal, and to avoid giving publicity, directly or indirectly, either previously to, during, or after, the investigation of such differences by the Court of Appeal."

After some discussion, it was resolved to elect a Special Committee, consisting of Drs. Brabazon, Hensley, Falconer, and Davey, with Messrs. Stone, Coe, and Collins, to consider the subject, and report at the next ordinary meeting.

The Royal College of Physicians.—Mr. E. CROSSMAN proposed that the following memorial to the Royal College of Physicians should be adopted by the members of the Branch.

"*To the President, Censors, and Fellows of the Royal College of Physicians of London.*

"We, the undersigned Fellows and Members of the Royal College of Surgeons and Licentiates of the Society of Apothecaries of London, practising as general practitioners in and around the cities of Bath and Bristol, having heard that a memorial, emanating from certain practitioners of high repute in London, has been presented to the Royal College of Physicians, praying the said College to grant its license without examination to all fully qualified general practitioners who were so qualified before the institution of the modern grade of Licentiates of the Royal College of Physicians, desire respectfully to urge the justice and expediency of this prayer, for the following reasons:—

"That, when we entered the profession, the membership of the Royal College of Surgeons and the license of the Society of Apothecaries of London constituted the full and only legal diploma for general practice in England.

"That we do, and always have conformed (professionally), to all that is required of the Licentiates of the Royal College of Physicians.

"That we do not, and never have sold drugs, or dispensed medicines, other than those supplied to our own patients.

"That we have not been deterred from presenting ourselves for examination by the difficulty of the test; but that, being actively engaged in practice, the time occupied in preparing for the examination would be a great loss and injury to us.

"That we desire to see established an uniform test for all men entering the profession, and believe that this will tend, more than any other measure, to promote that end; feeling sure, as we do, that all the better class of general practitioners will immediately avail themselves of the privilege, and gladly transfer their allegiance to the Royal College of Physicians of London."

This petition was ordered to be laid on the table for signature.

Club Remuneration.—Mr. COLLINS proposed the following resolution, which was adopted:—"That the representative members of Council should be instructed to bring before the General Council of the Association the subject of a general tariff of medical and surgical fees, as well as of club remuneration."

A Vote of Thanks to the President and Governors of the Bath Mineral Water Hospital, for the use of the committee-room, was then passed; and the members, to the number of thirty, afterwards dined together at the York House, under the presidency of Mr. Stone.

NORTH WALES BRANCH: ANNUAL MEETING.

THE Nineteenth Annual Meeting of the above Branch was held on Tuesday, July 7th, at the Parade Hotel, Rhyl, at 1.16 P.M., under the presidency of JAMES WILLIAMS, Esq., of Holywell. There were also twenty-five members present, and Dr. Llewellyn Williams of Wrexham as visitor. Letters were received from several members, regretting their inability to attend.

T. EYTON JONES, Esq. (Wrexham), the Retiring President, after a few observations thanking the members for the kindness and courtesy shewn him during his year of office, introduced the President-elect, JAMES WILLIAMS, Esq., who delivered an able and interesting address.

Report of Council.—Mr. EYTON JONES (on behalf of Mr. Kent Jones, Honorary Secretary) then read the following Report.

"Your Council are delighted to meet the members on this the nineteenth annual meeting of the North Wales Branch in the attractive watering town of Rhyl, where so many similar gatherings have been held under happy auspices; and they would hold out the hope that the present meeting will also be a successful one. They are glad to be able to report that the Branch continues steadily to increase in numbers;

and its influence for the well-being of the profession has taken firm hold in the northern portion of the principality.

"It affords your Council great pleasure to notice here the cordial reception and hospitality shown by the members of the profession in Dublin to all those of the British Medical Association who were able to attend the great annual meeting held in that fine old city in August last. Your Council take this opportunity, on behalf of the members of this Branch, to express to their Irish brethren their warmest thanks and the liveliest and most pleasing recollections of their visit.

"The Intermediate Meeting held in Ruthin in March last was in every respect a successful one; and to Dr. Jenkins, who provided a handsome luncheon on that occasion, the best acknowledgments of the members are due. Some very interesting papers and cases were read and discussed.

"Your Council have to thank Thomas Taylor Griffith, Esq., of Wrexham, for kindly accepting the post of Representative of this Branch upon the Parliamentary Committee of the Metropolitan Counties Branch of the Association, which seems likely to prove of great utility in watching over all legislative measures that may be introduced into Parliament affecting the interests of the profession. Among other pressing subjects for speedy settlement are the questions of State Medicine and Poor-law Medical Reform; and, whenever they receive a satisfactory solution, considering the numerical strength alone of Poor-law medical officers of Great Britain and Ireland, it may be desirable to establish a distinct Civil Medical Service, with a Director-General at its head, who would be under the authority of the Privy Council.

"The improved condition of the BRITISH MEDICAL JOURNAL is a source of great gratification to your Council; and this rapid rise in its tone and character must in fairness be attributed to the excellent and talented editorship of Mr. Ernest Hart, whose indefatigable industry, tact, and judgment, are beyond all praise. It is not too much to say that, for independence, impartiality, and talent, the JOURNAL stands in the foremost ranks of medical periodicals; and as such it is no doubt largely consulted by the Government of the day.

"The funds of the Branch would be in a more satisfactory state if members would regularly pay their small half-crown subscriptions at the beginning of every year, or at the intermediate meetings. By so doing, a larger balance would be available to meet all emergencies, and occasionally a donation might be made to some benevolent purposes connected with the profession; such, for instance, as the one of five guineas presented a few years ago to that most excellent and praiseworthy charity, the Medical Benevolent Fund—which is, in fact, a part of our great Association, and which just now stands in urgent need of pecuniary assistance. The balance in treasurer's hands on the 1st of last January was four shillings and elevenpence, and the amount of half-crown subscriptions received by him since then up to the present time is £5, making a total of £5 : 4 : 11 to meet the current expenses of the year."

Mr. T. T. GRIFFITH moved—"That the Report of Council now read be received and adopted." This was seconded by Dr. J. R. HUGHES (Denbigh), and carried unanimously.

Votes of Thanks.—Dr. HARVEY WILLIAMS (Rhyl) moved a vote of thanks to the President for his excellent address; which, having been seconded by Mr. LODGE (St. Asaph), was carried with acclamation.

Mr. WOLSTENHOLME (Holywell) moved, Mr. ARTHUR JONES (Carnarvon) seconded, and it was heartily responded to—"That the best thanks of the meeting be given to the Council of the Branch and all officers for the past year for their valuable services."

Election of Officers, etc.—Dr. ROBERTS (St. Asaph) moved, and it was unanimously agreed to—"That William Maugham, M.D., of Carnarvon, be the President-elect for 1869; and that the annual meeting for that year be held at the Royal Hotel, Rhyl."

Upon the motion of Mr. TURNER JONES (Denbigh), the following members were elected on the Council of the Branch for next year; viz., E. G. Clarke, Esq. (Mold); T. F. Edwards, Esq. (Denbigh); T. E. Jones, Esq. (Llanasa); Ll. Lodge, Esq. (St. Asaph); R. E. Owen, Esq. (Beaumaris); R. C. Roberts, Esq. (Ruabon); R. P. Roberts, Esq. (Rhyl); F. Theed, Esq. (Rhyl); G. Harvey Williams, M.D. (Rhyl); and J. H. Wolstenholme, Esq. (Holywell).

It was moved by Mr. THEED (Rhyl), seconded by Mr. LODGE (St. Asaph), and agreed to—"That Thomas Taylor Griffith, Esq., Wrexham), and Owen Roberts, M.D., St. Asaph, be elected to represent the Branch in the General Council of the British Medical Association."

Dr. WILLIAMS (Wrexham) moved, Dr. MAUGHAM (Carnarvon) seconded, and it was unanimously carried—"That Thomas Taylor Griffith, Esq., Wrexham, be re-elected to represent this Branch upon the Parliamentary Committee of the Metropolitan Counties Branch for next year."

It was unanimously resolved to hold the next intermediate meeting of the Branch in Mold in the month of March; and Mr. Kent Jones of Beaumaris was re-elected Secretary and Treasurer.

New Members.—The following gentlemen were duly proposed, seconded, and elected members of this Branch and of the British Medical Association; viz., Edward Robert Barker, M.D., Menai Bridge, Anglesea; and John Williams, Esq., surgeon, Penygroes, Llanllyfni, Carnarvonshire.

Papers, Cases, etc.—The following were read. 1. Spermatorrhœa. By E. T. Hughes, M.D., Mold.—2. Case of Tumour obstructing Labour. By E. G. Clarke, Esq., Mold.—3. On the Therapeutical Action of Oleum Succini in Pertussis. By T. T. Griffith, Esq., Wrexham.—4. Case of Hæmorrhage in a New-born Infant, from an Orifice near the Umbilicus, arrested by Suture. By Ll. Lodge, Esq., St. Asaph.—5. Case of Apnœa. By E. T. Hughes, M.D., Mold. He described this case as now under the care of Dr. Williams of Mold and himself, in which the peculiar apnœa first noticed by Dr. Cheyne, and afterwards more fully described by Dr. Stokes in his work on *Diseases of the Heart*, had been present for six days with only two intermissions of two hours and two hours and a half each. The patient was affected with Bright's disease, complicated with disorder of the brain, heart, and liver. The pulse was never in the least affected by the suspension of breathing.—6. Case of Cellulitis of the Foot and Leg. By T. Eyton Jones, Esq., Wrexham.—7. On the Therapeutical Action of Belladonna in Pertussis. By Edward Williams, M.D., Wrexham.

Dinner.—All the members present, with Rev. H. Morgan, M.A., Rhyl, and Llewellyn Williams, M.D., Wrexham, as guests, partook of an excellent dinner at the Parade hotel, and spent a very agreeable and pleasant evening.

CORRESPONDENCE.

STATE MEDICINE.

SIR,—I challenge "A Medical Officer of Health" to step forth from his anonymous disguise, and substantiate, if he can, by quotations "from their speeches," his inference that Drs. Rumsey, Acland, and Stewart believe that the elements of health, the etiology and pathology of disease in a community, differ "*toto cœlo* from those in the individual." Till then we shall take the liberty of reckoning him a being gifted with a very fervid imagination, and not much at home in the sober region of facts. A very unsafe man, by the way, for a medical officer of health.

I take him, however, as a peg on which to hang a very concise statement of what we do wish. I believe we are all as one as to the need of special training—practical, as well as theoretical—in hygiene and *general* pathology, which, if properly taught, include a variety of subjects to which most students pay no attention, and which most medical men in active practice have neither the leisure nor the inclination to study. On the other question of having "a separate class of doctors as health officers," or rather of setting apart as health officers men with special qualifications for that particular work, and debarring them in all cases from *private* practice, there is some difference of opinion. In order to arrive at a sound conclusion, instead of a random one, which seems to find favour in the eyes of your correspondent, we ask for a comprehensive and searching inquiry. If it shall turn out that, as a general rule, an officer of health can attend to a large private practice without in any way neglecting or evading his public duties, a strong case will be made out for leaving the question open. If, on the other hand, it shall turn out that, in the great majority of cases, the faithful and fearless performance of his public duties by the officer of health is equivalent to the serious injury or utter ruin of his private practice, then the question may be considered as conclusively settled in favour of debarring the health officer from *private*, but certainly not from *public* practice, as in hospitals and dispensaries. Do our critics in the Lancashire Branch and elsewhere disapprove of *inquiry*, with a view to ascertain the facts? I am sure my good friend Dr. Gairdner does not.

I have only touched a portion of the great subject we have in hand. The questions whether the health officers should be the superintending registrars, and medical assessors in criminal cases, do not seem to occupy any space, however minute, in the capacious and philosophic mind of your anonymous correspondent. Let him shew himself, that we may accord to him the reverence which is his due.—I am, etc.,

St. Swithin's Day, 1868. A. P. STEWART.

NEW AND CHEAP ARTIFICIAL ARMS.

SIR,—Honour to whom honour is due. The artificial hand of which you have given a drawing in your JOURNAL of the 18th instant, as introduced by Mr. Pratt of Oxford Street, is not the invention of M.

Fichot, the mechanist, of Paris, but of the Comte de Beaufort, a gentleman as well known in France for his mechanical genius as for his devotion to humanitarian objects. In the contrivance under notice, the Comte de Beaufort sought to combine qualities of simplicity, usefulness, strength, absence of liability to derangement, and of low cost; and I know, from observation of the artificial arm in actual use, that he has admirably succeeded in his endeavours. The Comte gave his invention to M. Fichot on one condition, viz., that he should supply it to patients in the hospitals, and to the poor of Paris, at a price just covering the cost of its manufacture; and, in consequence of this condition, it is sold at Paris for the use of the persons named for fifteen *francs*, or a little more than twelve shillings.—I am, etc., THOMAS LONGMORE.

Army Medical School, Netley, July 1868.

SUGGESTIONS FOR THE ANNUAL MEETING.

Railway Fares.

SIR,—When the British Medical Association held their meeting in Leamington in 1865, the London and North-Western Railway Company extended their ordinary return tickets to members during the week. I think if you would represent this to the Manager at the General Office in Euston Station, London, the same facility would be granted this year to members attending the meeting at Oxford.

I am, etc., W. WILLIAMS, M.D.

Mold, North Wales, July 1868.

A Conference on Parliamentary Representation of the Universities of Glasgow and Aberdeen.

SIR,—As a graduate of the University of Aberdeen, I have withheld pledging myself to either of the legal candidates who have appealed to me, hoping that Dr. Andrew Clark, who appears to be most eligible, or some other medical man, would positively announce himself as a candidate for the representation of the University.

I think it is very deeply to be regretted, that the members of the profession do not more clearly perceive the importance of taking adequate means to make their influence felt in the national councils. The treatment which we receive from the Government is humiliating. Need I refer to the injustice so long endured by Poor-law medical officers? The Medical Act is wretchedly ineffective; yet the Home Secretary cannot be induced to undertake its amendment. The treatment of surgeons by the naval authorities continues to be disgraceful—that of Dr. Stirling is a case in point; others almost, if not quite, as bad might be cited. The latest illustration of the manner in which the profession is treated by the Government, is seen in the omission of any reference in Parliament to the all-important services rendered by the Medical Department in Abyssinia. Votes of thanks were given to all the other branches of the army, save and except the medical. If such conduct do not arouse the profession to a sense of its wrong, and excite on the part of those who have votes to give, a determination to do themselves and their brethren justice, then we shall deserve the indignities so constantly heaped upon us. But medical men are needed in Parliament, not merely to promote the good of the profession. The most vital interests of the community require their presence there in greatly increased numbers. Questions affecting the sanitary condition of the people of this and other countries under the British crown, as well as the army and navy, are continually coming up for discussion, and on such occasions the counsels of medical men would prove invaluable.

The House of Commons is overdone with lawyers; it stands in the utmost need of able medical men.

The meeting of the British Medical Association at Oxford offers an excellent opportunity for a gathering of the graduates of the two Universities, to confer as to the best man and the best course for adoption. I doubt not that the Local Secretaries would kindly offer facilities for holding such a meeting, seeing that the object would be to promote the interests of the profession. I am, etc.,

Warrington, July 1868. R. MARTIN, M.D.

THE RECENT ELECTION AT THE CHILDREN'S HOSPITAL.

SIR,—Since Dr. West has taken the trouble to introduce my name into the controversy respecting the recent election at the Children's Hospital, I am compelled, though reluctantly, to reply, and to request the favour of a short space in your columns. It is not, I believe, usual for members of a committee, appointed to investigate the professional claims of candidates for an hospital appointment, to publish for their own private purposes the number of votes gained by each candidate, and to violate the secrets of the ballot-box by recording the names of those members voting, who supported each individual, a proceeding which is not only opposed to the ordinary rules of etiquette, but is an obvious offence against good taste.

As Dr. West has taken this course, however, I feel at liberty to mention that, shortly after the meeting of the Medical Committee at which these votes were given, I was informed by no less than three of the members then present that the same majority, which placed Mr. Hill first, preferred my claims to those of Mr. Marsh, who consequently occupied the third place. I cannot, therefore, believe that the statement of Dr. West, although doubtless numerically correct, really represents the opinions of the meeting on the relative merits of the three candidates.

With regard to Dr. West's indignant denial of any attempt on his part "to upset in the General Committee the decision arrived at in the Medical Committee," I would say one word. Dr. West says that the statement is "absolutely incorrect from beginning to end," and no doubt what Dr. West says is perfectly true; nor can one be surprised that so accomplished an adversary should decline to employ such means of attaining his ends, if other tactics departing less demonstrably from the duties of a physician to his colleagues were equally sure to succeed. That, however, he had at one time the intention of taking direct means to compass his own ends I have the evidence of his own statement, made to me on the occasion of my calling upon him previously to my becoming a candidate for the vacant appointment, and when, I beg you to observe, the office had not even been advertised. He then expressed his intention of supporting Mr. Marsh, and stated that he did not consider it probable that the professional claims of any other candidate would influence his judgment in this matter; adding, moreover, that should Mr. Hill obtain a majority of one in the Medical Committee, he would not hesitate to bring the subject before the General Committee as an open question, and induce them to reconsider the recommendation. It appears, however, from his letter, that he did not take any personal action in this matter, but encouraged the defeated candidate to do so instead. For the first time, then, since the foundation of the hospital, the principle of skilled *selection* has been departed from, and that of *election* adopted, with all its attendant annoyances of personal canvass, and private interests.—I am, etc., ALEXANDER BRUCE.

8, Old Cavendish Street, W., July 11th.

⁂ The publication of the above letter was unavoidably postponed from want of space. Dr. West now requests us to publish also the following further correspondence between himself and Mr. Bruce.

From Dr. West to Mr. Bruce.

61, Wimpole Street, July 16th, 1868.

DEAR SIR,—I heard to-day from Lord Gort—on the authority, he believes, of Dr. Buchanan—that you say that, before the election at the Children's Hospital, I told you, "if Mr. Marsh were not elected, I would appeal to the Managing Committee." Now, as I further hear that you propose sending this statement to one or more of the medical journals, I take the liberty of writing to assure you that you must utterly have mistaken whatever I said to you; that I am as certain as it is possible for any one to be about anything, that I never said any such words, and never thought any such thought. As it may be necessary, or at least satisfactory to you, to bring some proof of the correctness of my recollection, I will add—1. That I expected Mr. Marsh *would* be elected. 2. I felt morally certain that *you would not*; for I knew that Mr. Berkeley Hill was sure of the support of two, if not three, out of the medical officers. 3. In point of fact, when the contingency occurred, I took no step whatever to appeal to the Managing Committee. 4. I had no intention of doing so, as is proved by the following extract from a letter of mine to the Secretary, written two days after the election, on the very day on which I wrote to Mr. Marsh the letter which appeared in last week's BRITISH MEDICAL JOURNAL. I must now trust to you to withdraw any letter, if you have written one, containing the statement referred to, which you must now perceive to be erroneous.

Believe me, yours faithfully,

A. Bruce, Esq. CHARLES WEST.

Extract from a letter from Dr. West to Mr. Whitford, June 26th, 1868.

"There is nothing to be said about the election, except, of course, to confirm it, and to take care that no such occurrence as the outvoting of the surgeon on the choice of an assistant, and the determining, by the casting vote of an assistant officer, so important a matter as the election of one of the staff, shall ever be possible again."

From Mr. Bruce to Dr. West.

8, Old Cavendish Street, W., July 16th, 1868.

DEAR SIR,—I cannot now withdraw my letter, which will, I suppose, appear in the BRITISH MEDICAL JOURNAL of to-morrow. I still hold to the statement contained therein, as truly expressing the substance of your conversation with me on the occasion of my visit, previous to my becoming a candidate for the appointment, which had not then been declared vacant. I had not intended to take any part in this controversy; but I have felt obliged to do so, in consequence of your letter, which placed me in a very false position with those who were not familiar with the elections at the Children's Hospital. I shall always hold that the publication of the number of votes gained by candidates, in a select professional committee appointed to examine and report upon professional claims, is a breach of good faith, and calculated to injure an unsuccessful candidate.

I remain yours faithfully

Charles West, Esq., M.D. ALEX. BRUCE.

From Dr. West to Mr. Bruce.

61, Wimpole Street, July 17th, 1868.

SIR,—I much regret, for your own sake, that you have now reduced the question at issue between us to one of personal veracity. You assert that, in a conversation between us, at which no witness was present, I made a statement which I deny to have made, and prove, by evidence that must be conclusive to all unprejudiced persons, that the statement is in itself utterly improbable. I was willing to believe that you had, in some strange way, misconceived what passed. You deprive me of this satisfaction; and here I must leave the matter.

Your obedient servant,

Alex. Bruce, Esq. CHARLES WEST.

I shall publish this correspondence.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Tuesday, July 21st.

THE DIETARY AND CLOTHING OF THE IRISH WORKHOUSES.—In reply to Mr. COGAN, Lord MAYO said that the Irish Poor-Law Board was doing all in its power to induce the guardians to adopt the recommendations which it had issued in respect of food and clothing. Those recommendations had been adopted by eighty-five unions, and it was hoped that they would soon be generally followed.

THE ARTISANS' AND LABOURERS' BILL, as amended by the Lords, was brought down to the Commons. The now famous "Health Officers" Clause as amended, stood as follows. "Officer of Health" shall mean and include Medical Officer of Health, Sanitary Inspector [or Inspector of Nuisances, or any other officer performing duties analogous to those which the Officer of Health performs under "The Local Government Act, 1858," or which the Medical Officer exercises under the Act of the Session of the eighteenth and nineteenth year of the reign of Her present Majesty, chapter one hundred and twenty, intituled "An Act for the better Local Management of the Metropolis," or which in Scotland the Medical Officer or the Sanitary Inspector exercises under "The Public Health (Scotland) Act, 1867," or which in Ireland the Officer of Health or Inspector of Nuisances exercises under "The Towns Improvement (Ireland) Act, 1854," or any Act incorporating "The Towns Improvement Clauses Act, 1847]: *or any Statutory Officer performing the duties which a Medical Officer or Sanitary Inspector performs under or by virtue of any Act of Parliament.* The words in italics were inserted, and the words in brackets were omitted by the Lords.

ON THE MOTION OF MR. PERCY WYNDHAM, that the words SANITARY INSPECTOR be *omitted*, the Lord Advocate objected that they were necessary in Scotland; they were accordingly retained, and the clause stands as amended by the Lords.

OBITUARY.

WILLIAM STEVENS, M.D., D.C.L.

THE *Malvern Advertiser* records the death of Dr. Stevens, at the age of 82. Dr. Stevens was best known as the advocate of the saline treatment of cholera, and for his volume published in 1832 "On the Healthy and Diseased Properties of the Blood." The history of the deceased was a remarkable one. Educated for the medical profession at the University of Glasgow, where he studied under the celebrated Allan Burns, he early in life showed deep knowledge in anatomy, as well as skill and boldness in manipulation, by performing for the first time in surgical history the tying of the internal iliac artery. Dr. Stevens emigrated to one of the West India Islands—Santa Cruz—where he settled in practice and also engaged in commercial enterprise as a planter and sugar-grower, etc. Here he gained large influence and no small reputation. Among other public presentations to the deceased was a splendid piece of plate by the Magistrates of Middlesex, for his successful treatment of cholera. On leaving Santa Cruz, the estate of Dr. Stevens, from adverse circumstances, was deeply indebted to its royal owner, the King of Denmark, who, in recognition of his medical services, not only ignored a heavy sum, but continued the lease of the property on such terms as placed the doctor in affluent circumstances. In 1834 the degree of D.C.L. was conferred on the doctor by the University of Oxford. The deceased had seen much of the world, having been a somewhat extensive traveller, not merely in the dominions of the Queen, but in America—North and South, and in Russia. When asked why he finally selected Malvern as a residence, he declared emphatically because it was to his mind not only the prettiest but the healthiest spot in the world. During the last quarter of a century Dr. Stevens had not been in unison with the profession; partly because of his views on cholera and its treatment, and partly because of his views on the structure and functions of the brain. The latter organ he did not believe to be the mental one. His views on the subject were strong, and often strongly expressed, and his manuscript and other expressions on the subject were voluminous. The deceased died at the advanced age of 82.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

PHYSIC TO THE DOGS.

THE case of Dr. Reid of Newbiggen, to which we lately referred, is certainly a very striking illustration of the niggardliness of guardians, and the neglect of the Poor-law Board to interfere in favour of the underpaid medical officers, whose salaries they "approve". Following our advice, Dr. Reid attended the recent meeting of Poor-law medical officers in London, and told his tale with a graphic power which ought to ensure for it a wide circulation, and for the guardians of Morpeth an infamous distinction. "Mr. Chairman," said the worthy doctor, "permit me to tell you that it is not in London alone that streets spring up as if by magic; for in my district, where there were only 100 inhabitants in North Seaton township sixteen years ago, there is now one of the largest collieries in the kingdom, containing a population of about 2,000; added to which, there is the rapid increase of streets, terraces, etc., in the sea-bathing town of Newbiggen itself, which must have doubled its inhabitants during that period." The doctor then stated that he thought himself justified, with such an increase of work, to ask to have his salary raised from £10 to £20; but, he says, "ten pounds were deemed quite sufficient for attending the poor of eight townships, some three, four, five, and six miles from my residence, and providing medicine to boot." Commenting on the conduct of the honourable and reverend gentleman who led the opposition to the modest increase of salary proposed by Dr. Reid, that gentleman proceeds to say that, while he can count his flock by thousands, the reverend gentleman in question can scarce reckon his sheep by hundreds; "and yet," he adds, "whilst he annually pockets his one thousand and odd hundreds, he thinks me remunerated with a less sum yearly than he would pay for the keep of the dogs which are his favourite companions."

LUNATICS AT THE NOTTINGHAM WORKHOUSE.

MR. WORTH, one of the guardians of the Nottingham Board, has brought before the Board three cases in which the circumstances, such as he describes them, indicate the detention of inmates as lunatic without proper authority; they not being, as he says, insane. The circumstances detailed are of an unsatisfactory character, and seem to call for inquiry. A committee has been appointed to investigate and report on the matter.

PROFESSIONAL BACK-BITING.—"Medicus" complains that a medical neighbour, who has recently settled near him, has brought a continued series of vexatious charges against him before the Board of Guardians and the Poor-law Board, without communicating with him. The Guardians have dismissed them as frivolous. He asks whether the Colleges of which that gentleman is a member will interfere to reprobate his conduct. We fear not; and the only remedy for our correspondent is to appeal to the bar of professional opinion, by bringing the circumstances under the cognisance of the Council of his Branch of the British Medical Association, which might probably bring the matter to a peaceful and satisfactory issue.

*PEACOCK, Albert L., Esq., has been appointed Medical Officer and Public Vaccinator for No. 2 District of the Honiton Union.

MEDICAL NEWS.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Tuesday, July 21st, 1868, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Aldridge, Charles, W. R. Asylum, Wakefield
Andrews, George, Guy's Hospital
Ash, Robert Vacy, Holsworthy, North Devon
Bradley, George, Bell Bank, Bentham, Yorkshire
Brett, Francis Charles, 40, Halsey Street, Cadogan Place
Burton, John Earp, 21, Boundary Street East, Liverpool
Calthrop, Christopher William, Charing Cross Hospital
Cole, Richard Mount, Guy's Hospital
Cortis, William Richard, 141, Kennington Park Road
Dalton, Frederick, Newhaven
Edwards, Branford, Carr Street, Ipswich
Fidler, John Dixon, M.D.Aberdeen, Whitehaven
Godwin, Charles Henry Young, Royal Artillery, Woolwich
Goodhart, James Frederick, Brighton
Greenhill, Arthur Francis, Priory Lodge, Barnes
Groves, Edward, 47, Bartholomew Close, E.C.
Havard, David, West Street, Newport, Pembrokeshire
Howes, Frank Charles Plumptre, 5, Mecklenburgh Street, Mecklenburgh Square
I'Anson, Thomas Francis, M.D.Aberdeen, Whitehaven
Joseph, Thomas Morgan, Oaklands, Builth
Kenyon, John Edward, 40, Winchester Street, Pimlico
Lorimer, John Archibald, 3, Randolph Gardens, Maida Vale
Milford, Frederick, M.D.Heidelberg, Sydney
Prior, Richard Henry, Westgate, Chichester
Rigby, James Morris, Chorley, Lancashire
Rogers, Charles Edward Heron, Retford, Notts
Sharp, John Adolphus, 225, Evelyn Street, Deptford
Sleightholme, John Pennock, 6, Esk Terrace, Whitby
Snook, James Walbridge, Wellington, Salop
Thompson, George, W. R. Asylum, Wakefield

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on July 16th; and, when eligible, will be admitted to the pass examination:—

James Bunting and W. D. Wood (of Guy's Hospital); R. H. Squire and F. G. Ree (of St. George's Hospital); C. H. Carter (of University College); and David Evans (of St. Bartholomew's Hospital).

It is stated that out of the 80 candidates, no less than 25 were referred to their anatomical and physiological studies for the period of three months.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 16th, 1868.

Kipling, William, Romaldkirk, Darlington
Long, Mark, Adelaide Place, Barking Road
Mackenzie, Frederick Morell, Tiverton, Devon
Pritchard, Urban, St. Paul's Road, London
Worts, Charles James, Trinity Street, Colchester

At the same Court, the following passed the first examination.

Jolliffe, John, Guy's Hospital
Lill, William Frederick, Guy's Hospital
Morris, John, Guy's Hospital
Pinder, John William, Leeds School of Medicine
Smithson, John, Leeds School of Medicine

As Assistants in compounding and dispensing medicines.

Padwick, Thomas, Kentish Town Road
Stanley, William, Blackman Street

MEDICAL VACANCIES.

The following vacancies are declared:—

ARDWICK and ANCOATS DISPENSARY, Manchester—House-Surgeon.
BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
CLIFDEN UNION—Medical Officer for the Roundstone Dispensary District.
CLONAKILTY UNION, co. Cork—Medical Officer for the Rosscarbery Dispensary District.
COWGATE DISPENSARY, Edinburgh—Resident Physician.
DERBY UNION—Medical Officer for District No. 1.
DORSET COUNTY HOSPITAL, Dorchester—Two Surgeons.
DUDLEY DISPENSARY—Resident Medical Officer.
DUKE OF DEVONSHIRE LODGE, National Independent Order of Odd Fellows, Salford—Surgeon.
ISLINGTON DISPENSARY—Physician.
MACCLESFIELD DISPENSARY—House-Surgeon.
NORTHAMPTON GENERAL INFIRMARY—Assistant to the House-Surgeon.
NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh—Assistant Medical Officer.
OUGHTERARD UNION, co. Galway—Medical Officer for the Oughterard Dispensary and the Workhouse.
ROLLESTON FRIENDLY SOCIETY, Barton-under-Needwood—Surgeon.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician; Assistant-Physician.
ROYAL INFIRMARY and DISPENSARY, Dundee—Assistant Medical Superintendent.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
ST. GILES and St. GEORGE, Bloomsbury, Parishes of—Resident Assistant Medical Officer.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Physician; Physician-Accoucheur.
ST. MARY'S HOSPITAL, Paddington—Lecturer on Chemistry.
ST. MARYLEBONE GENERAL DISPENSARY—Physician; Surgeon.
ST. PANCRAS and NORTHERN DISPENSARY—Physician.
SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Physician.
SOUTH DUBLIN UNION—Supernumerary Medical Officer for the Kilmainham Dispensary.
STOCKPORT INFIRMARY—House-Surgeon.
TAUNTON UNION—Medical Officer, Bishop's Lydeard District.
TRINITY COLLEGE, Glenalmond—Resident Medical Officer.
UNIVERSITY OF GLASGOW—Professor of Botany.
WANLOCKHEAD LEAD MINES, Lanarkshire—Surgeon.
WEST DERBY UNION, Lancashire—Medical Officer at the Workhouse.

MEDICAL APPOINTMENTS.

*Flower, Thomas, Esq., House-Surgeon to the Middlesex Hospital, appointed Visiting-Surgeon to the Chester General Infirmary.
*Peacock, Albert L., Esq., appointed Certifying Factory Surgeon under the Factory Acts for the District of Honiton and neighbourhood.

Army.

Kemp, Assistant-Surgeon R. D., M.B., 33rd Foot, to be Staff-Assistant-Surgeon, *vice* G. F. Adams.
Maclachlan, Assistant-Surgeon H. K., 74th Foot, to be Staff-Assistant-Surgeon, *vice* P. G. Power, M.D.
Power, Staff-Assistant-Surgeon P. G., M.D., to be Assistant-Surgeon 74th Foot, *vice* H. K. Maclachlan.

Royal Navy.

Brice, Frederick A., M.D., Surgeon, to the *Cameleon*.
Lucas, L., Esq., to be Surgeon in Her Majesty's Fleet.
M'Carthy, Denis, Esq., Assistant-Surgeon, to the *Lapwing*.
Nihill, John, M.D., to be Staff-Surgeon in Her Majesty's Fleet.
Powell, W. L., Esq., to be Surgeon in Her Majesty's Fleet.
Siccama, R. R., Esq., to be Surgeon in Her Majesty's Fleet.
Speer, Henry M., Esq., Staff-Surgeon, to the *President*.
Sutherland, George W. J., Esq., M.A., Surgeon, to the *Rapid*.
Wallace, Peter W., M.D., Surgeon, to the *Enterprise*.
Watson, A., M.D., to be Staff-Surgeon in Her Majesty's Fleet.
Wey, William J., Esq., Acting Assistant-Surgeon, to the *Vixen*.
Young, J., Esq., to be Staff-Surgeon in Her Majesty's Fleet.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Carter, W. G., Esq., to be Surgeon 2nd Gloucestershire E.V.
Daniel, W. A., Esq., to be Surgeon 1st Cinque Ports A.V.
Dunn, G. P., Esq., to be Honorary Assistant-Surgeon 6th Worcestershire R.V.
Ferguson, J., Esq., to be Assistant-Surgeon 1st Administrative Battalion Elginshire R.V.
Lang, H., M.D., to be Assistant-Surgeon 9th Middlesex R.V.
Smart, J. N., Esq., to be Surgeon 1st Administrative Battalion Gloucestershire E.V.
Smith, R., Esq., to be Surgeon 1st Administrative Battalion Elginshire R.V.

DEATHS.

Bleeck.—On July 3rd, at Weymouth, Harriet Gertrude, only daughter of *Charles Bleeck, Esq., Surgeon, Warminster.
*Bobart, William M., Esq., Surgeon, at Derby, aged 28, on July 10th.
*Davies, John, Esq., Surgeon-Major Army Medical Department, at Cheltenham, aged 50, on July 11th.
Myers.—On July 9th, at Milton Street, Dorset Square, aged 56, Mary, wife of Henry Myers, Esq., Surgeon.
Newington, S W., Esq., Surgeon, at Goudhurst, Kent, aged 67, on July 13th.
*Ogilvie, G. S., Esq., Surgeon, at Redland Green, Bristol, aged 76, on July 10th.
Ramsbotham, Francis H., M.D., at Woodend, Perthshire, aged 67, on July 7th.
Slade, Barlow, Esq., Surgeon, at Frome, aged 73, on July 12th.
Weekes, Henry, L.R.C.P.Ed., at Brompton, Kent, aged 54, on July 13th.
Young.—On July 8th, at Peel Road, Kilburn Park, aged 45, Sarah Louisa, widow of Thomas John Young, M.D., Bombay Medical Service.

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Cinchona in Jamaica.—We (*Standard*) learn upon reliable authority that there is every prospect that the attempt which is being made to add an important staple to the resources of the island of Jamaica in the cultivation of cinchonas will be attended with success. Under the direction of Mr. Robert Thomson, operations were at first confined to propagation, which was undertaken in a systematic way in the early part of 1866. At the present time, as the result of the growth of cuttings and of seed furnished by Dr. Hooker from Ceylon, there are about 25,000 plants in vigorous growth. In May 1867, a score of *cinchona simarubra* were transferred to a site of an altitude of 3700 feet, when they were about six inches in height. At the beginning of the present year, they had grown to that of three feet. The larger number, however, of the 25,000 were in pots; 500 only had been planted out at a height of 5200 feet. Mr. Thomson, we understand, is fully impressed with the opinion that the cultivation of the cinchona will be highly remunerative.

LECTURES
ON THE
PRINCIPLES OF SURGICAL DIAGNOSIS:
ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

By F. LE GROS CLARK, F.R.C.S.,
Surgeon to St. Thomas's Hospital, and Examiner in Surgery in the University of London.

LECTURE III.

Pain—Sleep—Objective Signs; viz., Deformity, Colour, Transparency, Temperature, Consistence, Œdema, Crepitation, Crepitus, Fluctuation —Diagnostic Value of Treatment.—Shock—Definition, Causes, Physical, Mental, Toxæmic, Predisposing.—Effects at Different Ages—Railway Collision—Effects of Shock on Nerve-Centres; on Heart—Temperature in Shock, and Reaction—Shock in Relation to Operations—Value of Stimulants in Diagnosis—Causes of Fatality in Shock.

MR. PRESIDENT AND GENTLEMEN,—Of the many expressive monosyllables, whether of Saxon or Latin origin, with which our copious language abounds, probably there is not one which awakens more thrilling emotions when it is uttered than the word "pain". In its etymology, the scholar discovers an association with the penalty and punishment of sin, whilst the physiologist, with a gentler and more tolerant construction, does not view it as an unmixed evil, but prefers to place it in the same category with labour, and to regard its conservative office as qualifying its penal character—a compensation whereby the curse is mitigated, and in one respect made a blessing. Pain is familiar to all; the wailing cry of infancy ushers in existence, and the moan of suffering is rarely absent from the bed of death. It is the lot of some to suffer much; of others to have comparative immunity from pain; some bear it with fortitude, others are restless under it: probably some frames are naturally more sensitive than others; and this circumstance of relative sensitiveness merits consideration in estimating the value of pain as a diagnostic symptom.

The character of pain varies as remarkably as its degree of intensity. A whole vocabulary of epithets has been employed in denoting the sensations of suffering patients. Many of these expressions are very graphic; and the alliance between the special character of the suffering and disease is often a valuable element in identifying the nature of a malady. The throb of suppuration, the gnawing pain of articular caries, the plunging or lancinating pain of cancer, the tearing pain of rectal fissure, the scalding pain in urethral inflammation, are a few of the characteristics to which I allude. Then, again, intermittent pain often distinguishes so-called neuralgia from inflammation; pressure may relieve the former, but rarely fails to aggravate the latter; and the converse result is obtained when the temperature of the affected part is artificially lowered. In syphilitic ostitis, for some unexplained reason, the suffering abates during the day, and is augmented at night; and there are often similar exacerbations in arthritis. Pain which is evoked by pressure varies likewise much in its nature and degree.

The acute tenderness in peritonitis, the sensitiveness of inflamed periosteum or in joint-disease, can scarcely be mistaken, though they may be so simulated by hysteria as to deceive the unwary or inexperienced. The progress of an abscess is often marked by the character of the accompanying pain; and its abatement denotes the yielding of superjacent textures, and the approach of pus to the surface. In acute inflammation, the anguish of the patient is sometimes converted, and that speedily, into comparative ease; as, for example, in strangulated hernia; this symptom, perhaps a relief not only to the patient but his friends, is differently interpreted by the surgeon; he knows it is the fatal indication of gangrene. Sympathetic pain is frequently a significant guide in diagnosis, and supplies valuable information to the surgeon. Such, for example, as pain at the orifice of the urethra in stone in the bladder; pain in the testicle when a stone is traversing the ureter, or that which exists in the knee in hip-disease. In some structures, the presence of pain suggests or confirms the existence of inflammation, as in bone, and in serous and synovial membranes, which are but little sensitive in health. Pain, if long continued or severe, is exhausting; but, *per se*, very rarely fatal. I think the shock of pain is much over-estimated. It is difficult to separate from the suffering the effects which are due to concurrent causes in operations; but it is certain that great and almost continued pain is compatible with protracted life. I have known some remarkable instances of this fact; and, although I appreciate to the full the value of chloroform, I am not aware that operations are rendered less fatal by its agency in securing the patient from suffering. Of its influence in shock, I shall have something further to say by and bye.

Though not an easy transition in fact, yet it seems a natural one, in considering these subjects, to pass from Pain to its antidote, "Nature's soft nurse", as our poet designates it in his beautiful apostrophe to Sleep. Apparently partial and fickle in its visits, as he describes it, yet there is always a reason for its absence, its restless presence, or its protracted sojourn; and, therefore, its peculiarities repay a careful study, and merit a passing notice as a valuable element in diagnosis. Sleep is rest of brain; or, to use the language of advanced physiology, "in natural sleep the exhausted nervous system is storing its reserve; when it is fully charged, there is resistance and awakening." Muscular rest alone is unrefreshing; the nervous energy is unrecruited. It is vain to seek repose by shutting out the external world in silence and darkness; this alone is insufficient to

> "Steep the senses in forgetfulness."

The busy brain must relax its hold of the objects of its accustomed pursuits; Nature's gentle pressure must weigh the eyelids down, and all the organic functions must sympathise by their more tranquil rhythm. The sound, unruffled sleep of health must be distinguished from the deep sleep of exhaustion, as well as that resulting from the opposite condition of vascular repletion, whether temporary or more persistent, when it verges on coma; as in threatening apoplexy or the advance of organic change in the brain. The drowsiness or stupor into which the wild mania of the earlier stage of a typhoid condition degenerates, would appear to be due, as already remarked, to the presence in the brain of uneliminated organic products, and indicates approaching dissolution.

But we often learn more from the absence than from the disturbed conditions of sleep. A restless night is frequently the first note of alarm to the surgeon in the after-treatment of an operation; it ushers in febrile derangement, or precedes the fatal rigor of pyæmia. Wakefulness characterises all forms of nervous excitement, unrest then being the typical condition of the brain; thus, in nervous and drunken delirium, in the constitutional irritation consequent on loss of blood and other depressing causes, the want of sleep reacts upon and aggravates the excitability of the brain. This state of wakeful delirium, combined with a quiet pulse and diminished sensibility to pain, is diagnostic of nervous excitement. The sleep from opium which visits the brain in this condition is deep, prolonged, and undisturbed; but the sleep, in febrile or inflammatory diseases, whether natural or artificial, is usually troubled by distressing dreams, tumultuous, incoherent, perplexing, or alarming, and abruptly broken by startled wakings; dreams such as De Quincey experienced in the depth of his wretchedness, and describes in his poetical *Confessions of an Opium-Eater*—not of that cast which Queen Mab brings with her, but a bewildering medley of scenes and circumstances, of thoughts and feelings, which oppress the struggling slumberer, and prompt him to seek relief in wakefulness.

A lower degree of nervous excitability is characterised by light, uneasy sleep, and frequent wakings, when the intellect seems to stagger for a time before it recovers its equilibrium. As the loss of natural sleep is often the first harbinger of ill, so its return inaugurates a favourable crisis in disease. The reaction following the shock of a serious operation rarely permits sleep of any duration during the first succeeding night; and the suffering entailed is often sufficient to interrupt rest for some time subsequently. Yet, in some instances, where the relief from exhaustion and pain is decided, as in the removal of an acutely inflamed and suppurating joint, the patient may at once recover the ability to sleep.

Setting aside the susceptibilities of individual patients, there is much to be learned, in diagnosis, from watching the effects of anodynes in procuring sleep. In nervous irritation, opium tranquillises, but in excitement from vascular repletion, it can rarely be borne; yet, the exceptions resulting from idiosyncrasy or habit render it unsafe to trust to the influence of this drug, without other concurrrent testimony, in distinguishing between these two conditions. The only assistance that I am aware of which chloroform affords to the surgeon in diagnosis is, that by its agency he is enabled to make a more searching examination than he otherwise could, to verify the suspected presence of disease or injury.

The *Objective* signs which it behoves the surgeon to study, appeal directly to the senses. Thus, the altered form and colour of any part are recognised by the eye; the consistence and temperature by the touch; odour and sound, severally, by the appropriate organs. A few observations on each of these will suffice.

Altered form, or *deformity*, may result from various causes, both in disease and injury. It is one of the leading features by which we recognise fracture and dislocation, and distinguish various diseased conditions of the skeleton. Under the title of swelling, it is one of the characteristics of inflammation, and the nature of tumours is partly determined by their form. In some instances, deformity is *in*directly indicative of existing disease, as in the outgrowing shoulder in lateral curvature of the spine, and consequent distortion of the ribs; or the existence of œdema in the lower part of a limb, resulting from vascular obstruction higher up; or, again, the presence of psoas abscess in the groin in lumbar caries. The period at which any marked change of form was first observed, its sudden or gradual appearance, its variations under different circumstances, and the influence of remedial agents upon it, are all conditions which are available in diagnosis, and require the careful scrutiny of the surgeon, whose anatomical skill and accuracy are thereby not infrequently put to the test. I would remark that, in conducting these investigations, it is often requisite to ascertain by comparison whether there is any deviation from strict symmetry between corresponding parts on opposite sides of the body; and I find that such inquiry is more satisfactorily conducted where one sense alone is employed at the time. Thus, in suspected injury at or near to the shoulder-joint, the eye should be allowed first to scan the upper part of the chest in front and at the back; subsequently the surgeon should place himself behind the patient, and trace with both hands simultaneously the outline of the shoulders, from the sternal extremity of the clavicle outwards, until the examination is completed. I think much advantage accrues from these separate observations, and that the independent testimony of each sense is, in the aggregate, more valuable than when two or more are employed simultaneously.

Of *colour*, as generally diffused over the surface, I have already spoken; it is more valuable to the physician than to the surgeon. But the latter is much indebted to its local manifestation as a diagnostic sign of considerable importance. In various types and stages of inflammation, the colour of the affected part is of material assistance in determining the nature and treatment of the disease. The diffused and rosy blush of erythema is distinguishable from the deeper hue of phlegmon or erysipelas; the broad and often dusky red cord which marks the course of an inflamed vein, does not resemble the more delicate and pink thread by which we trace an inflamed lymphatic. The approach of pus to the surface is indicated by the colour of the skin; and the dark dye of a stagnating circulation warns the surgeon of the incipient stage of a condition which will probably terminate in the ashy hue of gangrene. By its colour, ecchymosis is distinguishable from other effusions, and its different stages are indicated by its progression through the varying tints of the rainbow. *Transparency* reveals the fluid nature of a tumour, and its limpid character likewise, as in hydrocele. In ulcers and in healing wounds, the colour of the surface guides the surgeon in his treatment; and the copper hue of eruptions betrays the taint of syphilis. In hæmorrhage, the anxious inquiry of the surgeon is respecting the colour of the blood; or, again, the presence of bile in the alvine excretions, or a loaded condition of the urine, may be ascertained by their appearance.

It is principally by the sense of *touch* that we inform ourselves of temperature, consistence, fluctuation, and other allied sensations. Both locally and generally, *temperature* is useful as a diagnostic sign. It is raised in an inflamed part, and its permanent depression or loss indicate lowered vitality or mortification. Of the variations in temperature over the surface generally, and even locally, where there is no inflammation, I shall have to speak by and bye. I will not, therefore, enlarge on this subject now; but would add that this is a field of investigation which offers a rich harvest in its cultivation.

It is by their *consistence* principally that we distinguish tumours; but this is not infrequently a deceptive sign when exclusively relied on. The information it conveys is often masked by superjacent textures, or disguised by the presence of some accidental concomitant circumstance. Thus, the hardness of a mammary tumour is suggestive of its scirrhous character; but this sign is possessed in common by cancer and by chronic inflammation in this organ. Osseous growths may lose their characteristic hardness beneath a thick covering of muscle; and a soft tumour may have a firm resisting feel imparted to it when bound down by dense tissues. Thus, in a case under my care, the diagnosis of a large fat tumour beneath the pectoral muscle was obscured, until it made its way behind the clavicle into the neck, when its true character was revealed, and I removed it. A large inguinal hernia, which recently came under my notice, had taken the unusual course of extending itself beneath the aponeurosis of the external oblique muscle, instead of descending through the external ring; the diffused hard swelling in this case would not have suggested the existence of hernia, but for the symptoms of acute strangulation which were present. The brawny tension of phlegmon solicits the knife of the surgeon, equally with the soft yielding centre of an acute abscess. The impress which the finger leaves in *œdema* marks the existence of infiltration of the areolar tissue; and the *crepitation* of emphysema the presence of air. This latter peculiar and unmistakeable sensation is also occasionally met with in the neighbourhood of abscesses, and is the result of decomposition. *Crepitus*, as a diagnostic sign of fracture, is generally much valued by surgeons. I am not disposed to attach so much importance to it by itself, except in experienced hands and under peculiar circumstances. I think that it is subordinate in significance to many other signs, and is often obscure, and liable to be confused with a similar sensation encountered in synovial and other effusions.

Fluctuation, or the movement of a fluid within a more or less circumscribed space, is a sign, the value of which depends more on the tact of the surgeon in detecting it than on its own intrinsic worth. My meaning is that where it is palpable and unmistakeable there are usually other signs or symptoms present which point to the same conclusion; but where fluctuation is deeply seated, indistinct and, perhaps, the chief or only guide on which the surgeon has to depend, its value is greatly enhanced in the hands of a skilful manipulator. In such investigations there are many points which require care and consideration. However limited the spot where you are seeking to ascertain the presence of fluctuation, a finger of each hand should be employed, if practicable, in preference to using two fingers of the same hand: the impression thus obtained is far more satisfactory. If examining a suspected cyst, it should be fixed by an assistant whilst the palpation is conducted; and much assistance will also be afforded by making the object of examination as tense as possible, and bringing it near to the surface. If there be superjacent muscles they must be relaxed; if the accumulation of fluid be large, it should be allowed to gravitate towards one point. Yet, notwithstanding every precaution, there are many sources of fallacy associated with this diagnostic sign, which personal experience alone can teach the surgeon. Many parts of the body in a normal condition may be made to yield a sensation very like fluctuation. Subfascial serous infiltration, as in the muscles of the fore-arm, can scarcely be distinguished from the genuine sensation of a deep-seated and circumscribed cavity containing fluid.

In orchitis, a similar error, for the same reason, may occur. On the other hand, in subpectoral or perinæal abscess, the obscure fluctuation may readily be overlooked. Even the wave which is conveyed across the abdomen by a light tap with the finger is by no means a certain indication that we have fluid to deal with. Twice it has occurred to me to tap an ovarian cyst where the contents were gelatinous; and a few months since I removed such a cyst, of very large size, which was entirely filled with a very tenacious jelly. Yet, in each of these cases, the wave was as distinct as—I had almost said more so than—where nothing but fluid was present. Deep-seated fat tumours, in like manner, may be mistaken for cysts containing fluid. Thus, though the experienced surgeon may, with confidence, trust to, and act upon, his own impressions, he will not infrequently pause, where a more limited practical knowledge might hurry another into an erroneous judgment and, consequently, injudicious action.

The use of the other senses, viz., of hearing, smelling, and tasting, is much more limited in surgical diagnosis. I do not mean, by this observation, that the surgeon is justified in neglecting, or should be compelled to shrink from, the use of the stethoscope: his practice will afford him ample opportunity of using it, in testing the condition of the lungs and heart, as well as in abnormal states of the arterial system. The varying condition of the intestines in mechanical obstruction is capable of being verified by percussion. The ring of an urinary calculus, when the sound is introduced, leaves nothing to be desired in obtaining the requisite information for a correct diagnosis.

The sense of smell is brought into requisition in testing the character of the excretions; and still more importantly in ascertaining the presence of a foul atmosphere in the sick chamber, which is a rife source of many serious complications in the management of surgical operations.

Treatment is sometimes accidentally useful in the diagnosis of both injuries and surgical diseases; or it may be rendered available by carefully watching its effects. With this object in view, it should be the aim of the surgeon to remove as far as possible all adventitious circumstances which may influence the existing state of the patient; and I know of no condition more important in favouring this desideratum than *rest*. Especially is joint mischief, whether the result of injury or disease, thus most satisfactorily tested, where there exists doubt as to the true nature of the malady. More active measures may, of course, be resorted to, with the same object in view; but these must be used with discretion. Active treatment of any sort is rarely justifiable, where its proposed object is simply to unmask a disease: and exploratory operations should have attached to them the condition that the patient's chance of recovery will not be materially endangered by the proceeding.

[*To be continued.*]

AN ADDRESS

ON THE

ANTISEPTIC SYSTEM OF TREATMENT IN SURGERY.*

Delivered before the Medico-Chirurgical Society of Glasgow.

By JOSEPH LISTER, F.R.S.,
Professor of Surgery in the University of Glasgow, etc.

I HAVE now to show you a preparation illustrating the effects of the application of a ligature upon an artery on the antiseptic system. The theory of such a procedure is simple. A foreign body introduced among the tissues does not exert any disturbing influence upon them, unless it be either mechanically or chemically irritating. Thus, it is well known that a needle or a spiculum of glass may lie for an indefinite period embedded in the living textures without inducing suppuration; and any irritation which may result is due simply to the rigidity and form of the foreign solid. Now, a bit of silk or linen thread being composed of materials of soft consistence and as unstimulating chemically as glass or steel, its presence among the tissues cannot of itself occasion any disturbance. But, unlike the glass or metal, the thread is porous, and contains in its interstices putrefactive germs, which, developing in the serum that bathes the ligature, give rise to the acrid products of decomposition, and these, in their turn, stimulate the surrounding tissues to granulation and suppuration. If, however, the thread were steeped in some liquid calculated to destroy the life of the germs in its interstices, and the wound by which it was introduced were dressed antiseptically, the ends of the ligature being cut short, it might be left with confidence that its presence would not interfere with primary union, or occasion any disorder in the surrounding parts. [The traction exercised on the external coat by the noose of the ligature, is no doubt a temporary cause of mechanical irritation, but this does not appear to have any considerable influence.] Before applying these principles upon the human subject, I thought it right to test them on one of the lower animals.

Ligature of the Carotid Artery in the Horse, on the Antiseptic System.—On the 12th of December last, I tied the left carotid of a horse about the middle of the neck, using fine but strong "purse-silk, unwaxed, but steeped for some time in a saturated watery solution of carbolic acid. [The product of the action of carbolic acid upon blood serves the purpose of wax in preventing the first half of the knot from slipping during the tying of the second half.] The ligature having been tightly tied, so as to rupture the internal and middle coats, its ends were cut short, and the wound was freely treated with carbolic acid dissolved in forty parts of water. Seven stitches of the coarse soft wire used by veterinary surgeons for the purpose were introduced into the long wound, the most dependent part being left free for the escape of discharge. The hair around the wound was well rubbed with a solution of carbolic acid in four parts of olive oil, and cloths saturated with the same antiseptic oil were applied overlapping the surrounding skin freely, and retained in position by means which I need not describe; and similar oil was poured daily upon the cloths for the first six days. Ten days after the operation, I removed the dressings, and found the wound perfectly united throughout, except at the part purposely left open, which was covered with a sort of cheesy material, and as each stitch was removed, there was absence of even serous exudation. The wound was now left exposed, and in three days more the lower part had healed by scabbing, no suppuration having occurred from first to last. At the same time, there was none of the swelling and induration that usually attend the application of a ligature to a vessel in the horse's neck, and the animal showed no signs of uneasiness when the part was freely handled.

Five weeks and four days after the tying of the artery, the creature, though it had improved greatly in condition under its superior diet in the veterinary establishment, died, as the groom believed, of exhaustion from struggling ineffectually to rise from the recumbent posture. I had thus an opportunity of inspecting the parts concerned in the operation, some of which are now before you. In the first place, here is a portion of the skin containing the scar; and you will observe that it is a perfectly sound linear cicatrix, barely traceable among the hair. Here is the artery, slit up to show the condition of the interior. At the cardiac side of the place where the ligature was applied there was, as you see, an adherent coagulum, an inch and a quarter in length. But at the distal side there was no adherent clot, doubtless in consequence of the circulation through a large branch, about as big as the human vertebral, which came off, you will observe, as close to the situation of the ligature as was possible. The *cul-de-sac* formed by the distal end, though it showed indications of the puckering of the divided internal and middle coats, was completely cicatrised, the smooth lining membrane of the artery being continuous over the irregular surface. Why it was that the immediate vicinity of so large a branch did not lead to secondary hæmorrhage, was clear from the state of things beside the ligature, which lay embedded in a firm fibrous structure, with not only no pus, but no granulations, no softening of tissue around it. The portion of the external coat included in the noose, though doubtless killed by the violence with which it was pinched, had not been thrown off as a slough, but, being unstimulating, because undecomposing, it had been absorbed and reproduced by the living parts near it; while the thread had been bridged over externally by dense fibrous tissue, so that the vessel showed but little appearance of constriction where it had been tied, and it appears to be as strong at this part as at any other. You may form some estimate of its strength from the manner in which it resists the traction to which I now subject it. Here is the ligature with its short cut ends, apparently unchanged, except that it was divided in my search for it in its fibrous bed.

This case confirms the hope I ventured to express at the meeting of the British Medical Association in Dublin last autumn (see the BRITISH MEDICAL JOURNAL, September 21st, 1867), that the antiseptic system would free the deligation of a large artery in its continuity of the two essential elements of danger to which it is now liable, viz., an unhealthy condition of the wound, and secondary hæmorrhage. Thus encouraged, I felt justified in carrying a similar practice into human surgery.

Case of Ligature of the External Iliac Artery on the Antiseptic System.—On the 29th of January of this year, I was requested by Dr. Fergus to see a lady fifty-one years of age, who was suffering from an inguinal aneurism which had existed for four years, but had of late been markedly on the increase, causing agonising pain, which had confined her to bed for the last four weeks, and had considerably reduced her strength. The aneurism was of the size of a large orange, affecting the uppermost part of the left femoral artery, and extending a little above Poupart's ligament. Any delay appearing undesirable, I tied the external iliac on the following day, in presence of Dr. Fergus, and assisted by Messrs. Hector Cameron, Appleton, and James Coats. There was nothing peculiar in the operation, except that the incision was made a little further outward than usual, in order to avoid the upper part of the aneurism. The only bleeding vessel that required attention was twisted. The ligature employed had been previously steeped for two hours in strong fluid carbolic acid, prepared by adding a small proportion of water to the crystals. The tightly twisted thread requires a considerable period of immersion to ensure thorough soaking with the liquid; and the acid does not impair the tenacity of the fibre. At the time of the operation, the superfluous acid was removed by transferring the silk to a solution of carbolic acid in thirty parts of water; and the same lotion was used for the sponges, and also for washing the aneurism-needle before it was passed round the vessel. The artery having been tied, and the ends of the ligature cut short, the wound was freely treated with the watery solution, some of which was poured in, to make sure that it penetrated to every part. The edges of the skin were then brought together with silver sutures, except in the middle, where I introduced a pledget of lint steeped in a solution of the acid in five parts of olive-oil; passing it deeply, but leaving one end projecting externally, to serve as a drain for blood and serum. I then applied an external antiseptic dressing, the details of which I need not now describe. The pledget of lint was cautiously withdrawn on the following day, under cover of a pretty large piece of lint imbued with the antiseptic oil; and the external dressing was reapplied, and afterwards changed at intervals proportioned to the diminution of the serous discharge, which, at the end of a fortnight, was estimated at about three minims in three days. At this time, some portions of lint, which had been left till then undisturbed, were removed, when the wound was found quite free from pus, being perfectly cicatrised where the sutures were introduced; while the central part, where the pledget was placed after the operation, presented the appearance of a superficial sore, but not a granulating one; for the deep surface of the dressing, being devoid of stimulating properties, had failed to induce granulation in the tissues on which it lay. Meanwhile the patient had been relieved from the pain which she previously suffered, without experiencing febrile disturbance or any material inconvenience from the operation, except uneasiness in the wound the first two days, during retching occasioned by the chloroform. The tongue had been natural throughout; the pulse had only on one day been as high as 90, 72 to 84 being the usual rates; and her appetite, which had been absent during the four weeks of agony that preceded the operation, returned two days after it, as soon as the derangement of the stomach from chloroform subsided. On the fourteenth day, as I was arranging her pillows, she sat upright without inconvenience.

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* Continued from page 56.

Four weeks after the operation, the wound being completely cicatrised, she was allowed to move about in her room; and, just six weeks from the date of the ligature of the artery, she descended three long flights of stairs, walked for some time in the streets, and reascended the steps to her lodgings; and, though fatigued by the effort, she felt next day all the better for it. On March 31st, she called to see me, much improved in strength, though with still some tendency to swelling of the legs, especially the left, when in the erect posture. The aneurismal swelling felt merely like a slight glandular thickening. [On July 25th, 1868, I again visited her. She had derived much benefit from a stay at the seaside, and the tendency to œdema of the extremities was greatly diminished. There was still absence of pulsation in the external iliac artery, and the cicatrix remained quite sound twenty-five weeks after the operation; so that, whatever may have become of the ligature, there need be no apprehension of its ever making its appearance externally.]

The success of these cases of ligature depends, as we have seen, upon the circumstance that not only a neutral foreign body, but a portion of dead tissue, if simply protected from putrefaction, is entirely devoid of irritating properties. A good example of this fact is presented by a case at present under my care.

Case of Acute Necrosis treated on the Antiseptic System.—The patient is a boy, eight years of age, who was admitted into the Infirmary on Jan. 25th, 1868, having, five days previously, received a violent blow upon the left leg with a heavy pair of tongs, resulting in intense inflammation in the limb, which was red and swollen from the knee to the ankle. Fluctuation being distinctly perceptible over the upper part of the tibia, the matter was evacuated antiseptically. A piece of lint dipped in an oily solution of carbolic acid having been laid upon the part where the incision was to be made, its lower edge was raised to allow a knife smeared with the same solution to be plunged into the cavity of the abscess, when the curtain was at once dropped so that the pus might flow out beneath it. When all the matter had been pressed out, an external antiseptic dressing was applied, and this was afterwards changed daily. Four other abscesses afterwards made their appearance at intervals down the limb. These were treated in the same way; and in every case when a probe, carefully guarded by being passed among folds of lint steeped in the antiseptic oil, was introduced into the incision, it came into contact with bare bone. This was of itself sufficient evidence that portions of the tibia, of greater or less thickness, were dead; for, had the periosteum been raised by suppuration from living bone, the osseous surface would have become covered with granulations during the process. But evidence which must satisfy the most incredulous is afforded by the fact that, between two and three weeks after the first abscess was opened, a probe introduced into the orifice still passed down to bare bone. Under such circumstances, what, it may be asked, could be the advantage of continuing the antiseptic dressing? If dead bone was present, whether in larger or smaller amount, must it not become detached from the living osseous tissue by a gradual process of exfoliation, which an antiseptic applied to the skin could neither promote nor hinder? Such may be a natural inquiry. But having seen a large mass of dead bone absorbed before my eyes by the granulations that enveloped it, in a case of compound fracture treated antiseptically (see *Lancet*, March 23rd, 1867); and having also had evidence from *post mortem* examination in a case of hip-joint disease where extensive necrosis existed in connection with caries, that bone killed by inflammation might, under antiseptic management, fail to induce suppuration; putting those facts together, I thought it not unlikely that, in the case we are considering, the dead portions of the tibia would be absorbed by the living tissues around them, if we perseveringly maintained an effectual external antiseptic guard. Such, then, was the practice we pursued, and the result was such as I had anticipated. The various incisions successively healed, till by the 6th of this month (April), eleven weeks after the receipt of the injury which caused the attack, the abscess last opened was soundly closed and cicatrised, not a particle of dead bone having come away from any of the openings. At the same time, the swelling of the limb, instead of increasing, as is the case under ordinary treatment, from formation of new bone in the periosteum under the stimulating influence of exfoliations soaked with putrid liquids, had disappeared almost entirely from the upper part of the leg, which was that primarily affected, and was rapidly diminishing elsewhere. [On the 18th of May, the boy left the hospital with the full use of the limb. I had intended giving him a somewhat longer rest in bed as a measure of precaution. But I found that for a considerable time it had been impossible to keep him from getting up and running about the ward; and he was none the worse for his activity.] This certainly was very different from the tedious course of such cases under ordinary treatment.

With regard to the manner in which the dead bone has been disposed of, some who have not witnessed similar occurrences may doubt the possibility of its absorption, and believe that the necrosed pieces are still lying unchanged in the interior of that leg. But even those who take such a view must admit that we have here a most striking illustration of the important truth, that dead tissue, if protected from putrefaction, is of itself incapable of exerting any disturbing influence upon surrounding parts.

(*To be concluded.*)

THE PATHOLOGY AND TREATMENT OF SUN-STROKE.

By GEORGE JOHNSON, M.D., F.R.C.P.,

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Sun-Stroke or Heat-Apoplexy, more correctly Heat-Apnœa.—Causes.—Symptoms.—Morbid Anatomy.—Pathology.—The over-heated Blood relaxes the Minute Pulmonary Arteries, and so floods the Capillaries.—The State of the Lungs in Cholera contrasted with that in Heat-Apnœa.—Treatment.—The main object is to cool the over-heated Blood, so as to restore the Contractile Power of the Minute Pulmonary Arteries, to lessen the Capillary Engorgement of the Lungs, and thus remove the State of Apnœa.

THE formidable disease known by the name of *sun-stroke* or *heat-apoplexy* might be more correctly designated *heat-apnœa*, as I shall presently endeavour to prove. Although this affection frequently occurs from direct exposure to the sun's rays, it is also of common occurrence without such exposure. The one essential and constant condition is a very high temperature of the air. The most powerful concurring causes are, muscular exertion and excessive fatigue; hot clothing, and especially such as tends to impede the respiratory movements; an excessive use of alcoholic liquors; and the close and impure air of hot and over-crowded rooms. The disease may be fatal in a few minutes, or the symptoms may last from one to forty-eight hours.

The rapidly fatal cases are spoken of as belonging to the *cardiac* variety. The patient falls unconscious, gasps, and dies. When the disease runs a less rapid course, it is said to be of the *cerebro-spinal* variety. There are great heat, dryness, and redness of the skin, giddiness, nausea, congestion of the eyes, and frequent desire to micturate; sometimes delirium, then drowsiness, passing into coma. The pupils are contracted; the breathing is hurried and laborious; the heart's action is tumultuous; the pulse rapid, at first distinct, but soon becoming feeble and irregular. Convulsions are of common occurrence, either early in the attack, or immediately before death. After death, however rapid may have been the course of the disease, the one constant condition is extreme, "unexampled" congestion of the lungs, with distension of the right side of the heart.

Dr. Maclean, to whose article on Sun-Stroke (Reynolds's *System of Medicine*) I would refer for a clear and succinct account of the facts of the disease, states that all modern pathologists are agreed that the superheating of the blood, which precedes and accompanies sun-stroke, has a depressing, and not a stimulating, effect on the nervous centres. In what way, then, does the over-heated blood exert this depressing effect on the nervous centres? I will endeavour to give what I believe to be the true physiological explanation of the phenomena.

The hot blood relaxes the muscular walls of the minute pulmonary arteries. The pulmonary capillaries are consequently flooded with blood. This overfulness of the capillaries interferes with the aëration of the blood. In fact, the overgorged vessels must encroach upon the pulmonary vesicles, and so diminish the air-space within the lungs; while the air itself is highly rarefied. Hence a state of more or less complete apnœa. Unaërated blood is sent to the muscular tissue of the heart, and to the brain: hence the cardiac and the cerebral symptoms. A similarly engorged state of the cutaneous capillaries, consequent upon extreme relaxation of the minute arteries, is the probable cause of the dryness of the skin. An excessively engorged state of the capillaries is as unfavourable for cutaneous secretion as it is for pulmonary respiration. The dry and inactive state of the skin and the want of surface-evaporation tend to elevate still more the temperature of the blood; and the suppressed cutaneous secretion, being diverted to the kidneys, probably alters the quality of the urine, renders it irritating to the bladder, and explains the frequent micturition.

This explanation of the phenomena is confirmed by the results of treatment. There is now a very general concurrence of opinion that the application of cold to the skin is the most successful remedy. The object to be kept in view is not merely, as it is generally stated, to cool the skin, or to excite the respiratory movements by the stimulus of the douche, but to cool the blood, and thus to restore the contractility of the minute arteries of the lungs. The condition of the pulmonary vessels in this disease is the exact opposite to their state in cholera collapse. In cholera collapse, the minute pulmonary arteries are in a state of extreme contraction; and, as a consequence, the capillaries are extremely anæmic. In heat-apnœa, the pulmonary arteries are extremely relaxed; and the capillaries, consequently, are excessively engorged. In cholera collapse, external warmth in some degree, but much more rapidly and decidedly a warm injection into the veins, relaxes the arterial spasm, and restores the circulation. In heat-apnœa, on the contrary, the object is to cool down the over-heated blood, so to revive the contractile power of the minute pulmonary arteries, to relieve the capillaries from their embarrassing excess of blood, and thus to remove the state of apnœa. A clear apprehension of these physiological principles cannot fail to be of great assistance in practice.

In the treatment of heat-apnœa, the following appear to be the main points which require attention. The patient should be placed in a recumbent position in the coolest possible place, with a free current of air. The clothes should be removed, and cold water applied to the whole surface; or, if the symptoms be urgent, the clothes should immediately be saturated with cold water without waiting to remove them. If the respiratory movements be failing and feeble, the cold douche is a powerful excitor; but if the breathing be rapid and laborious, it is better to envelope the body in a wet sheet, and to quicken evaporation and cooling by a fan or a pair of bellows. If the patient can swallow, let him drink iced water freely. Whether he can swallow or not, iced water may from time to time be injected. The marvellous effect of hot venous injections in cholera collapse, and the urgent need for cooling the blood in heat-apnœa, suggest the expediency, in extreme cases, of injecting into a vein the same saline solution as has so frequently been employed in cholera, only injecting it cold instead of hot.

Dr. Morehead (*Clinical Researches on Diseases in India*) recommends venesection in the early stages of the attack, while Dr. Maclean condemns the practice. A routine practice of venesection would be destructive; but, when symptoms of excessive venous engorgement are present, a cautious venesection would be quite justifiable, and probably beneficial, on the well known principle of lessening distension of the right side of the heart, and thus increasing its contractile power. When respiration has suddenly and quite recently ceased, artificial respiration by Dr. Silvester's method may possibly restore animation. While symptoms of apnœa continue, however great may be the apparent exhaustion, no alcoholic stimulants are to be given, for the reason that alcohol, as well as anæsthetic vapours and narcotics, impede oxidation of the nervous and other tissues, and therefore increase the risk of death from apnœa. Ammonia may be applied to the nostrils as a stimulant, and, if the patient can swallow, it may be given internally. Ammonia is a powerful diaphoretic, and the restoration of the cutaneous secretion is an important step towards recovery. When the skin becomes cool and moist, of course all cold applications are to be discontinued. To sum up then—as *hot air* and *hot blood* are the cause of this form of apnœa, so *cold air* and *cold water* are the chief means of cure; all other means are subsidiary to these.

NOTES ON THE SURGERY OF THE NINETEENTH CENTURY AND THE OPHTHALMOSCOPE.*

BY JAMES VOSE SOLOMON, F.R.C.S.,

Surgeon to the Birmingham and Midland Eye Hospital, etc.

N the very eloquent and learned address on Surgery, delivered at the Dublin meeting of the British Medical Association by Professor Smith, was deplored that so little attention is paid, in the present day, to the atristic literature of our profession; and it was asserted that in those oble writings were to be found some things which had in our own day een presented as new discoveries.

Assenting then, as I do still, to much contended for by Professor mith, a man of great modesty and of rare gifts and acquirements, I yet lt at the time of the delivery of his address, and on reflection find no ason to alter my opinion that the nineteenth century surgeon has no casion for shame at the present state of his art. Can he not fairly boast at in his day scalpel and microscopic human anatomy attained perfecon; that the true nature of the inflammatory process was understood, id a rational and successful treatment adopted for its relief? He can claim that in his day the knife was robbed of its terrors by chloroform and local anæsthetics; while Eve's curse was mitigated by the same divine agency. The surgery of tendons, that of the iris, and that of acute glaucoma, were perfected.

I believe the future historian of the epoch will recognise as characteristic of it a marvellous improvement in the diagnostics of disease, and a large diminution of death-rate; great economy of time in the attainment of a stage of convalescence, with considerable diminution of the restraints and severities incident to our methods of cure; the substitution, for destructive operations, of procedures which reduce the parts submitted to surgical interference as near as is possible to a physiological state; the cure of certain diseases by bloodless operations, where the knife had ever before been the sole remedial resort; the healing of large wounds without occurrence of the process of suppuration. He will dilate with admiring wonder upon the rapid perfection of ovarian surgery, and the accomplishment of this by the labours of scarce more than twelve men—a death-rate of twenty per cent. having been attained. As a striking instance of economy of time, of recovery, and of physiological surgery, he will adduce excision of the elbow-joint in cases of articular disease, whereby years of suffering have been abridged to an easy and almost painless recovery extending over no more than a few weeks. In the list of bloodless operations, we doubt not, will be found the cure of stone in the urinary bladder through its eliminative canal by lithotrity; and, greatest of marvels, the consolidation of aneurism, even of the descending abdominal aorta, by compression. On the other hand, the historian will find much to tell of the invasion, and successful subjugation, by surgery, of districts which had, from the birth of the healing art, been considered as belonging to the domain of pure medicine; as, for example, the successful treatment by operation of acute glaucoma, reflex ophthalmia, recurrent iritis, and, it may be, of myopia. He will attribute a large measure of our progress to the important aids contributed to minuteness and accuracy of diagnosis by physical science, and by mechanical ingenuity and skill. He will relate that the living bladder ceased to be a dark obscure cavity; its diseases being pictured to the surgeon's eye on the field of the endoscope, and encysted and loose calculi being accurately differentiated. He will tell how the pathology of the larynx, painted on the most ancient of mirrors made by the hand of man, came to be unravelled; how the site on the voice-string from which the polypus had been snared was cauterised with unerrring certainty by the electric cautery. He will tell how the pulse wrote its own diary with the sphygmograph. He will dilate on the complete revolution effected in our treatment and views of the nature and pathology of eye-diseases by the discovery and use of the ophthalmoscope. He will, no doubt, attribute the rich harvest of fruit gathered from some of these methods to the enlistment of the sense of sight as an aid to that of touch, or as the sole exponent of the characteristics of the diseased changes—a sense which affords ideas and impressions altogether different from those obtainable by any other means whatever.* While speaking of these triumphs in the art of diagnosis, I cannot here refrain the remark that the tendency of the inventions and methods of the surgery of our period, which has become largely mechanical, is to put more nearly on a level those of gifted intellect and those of moderate understanding. It cannot be doubted, I think, that this levelling process is effecting much good by diffusing the blessings of our art more widely amongst humanity.

Nevertheless, the division of labour, called Specialism, will be maintained, if not increased; and through such division the great body of the profession will, as heretofore, acquire more distinct views of the pathology and appropriate treatment of certain diseases. The public is every day becoming more firmly convinced that their interest lies in supporting this arrangement; and I believe the profession will ere long be quickened to recognise that a cordial co-operation between specialist and general practitioner should become an universal rule, because subserving in the most complete manner the beneficent and benevolent purposes for which the profession exists.

The death-rate in ovariotomy has been reduced, as I have said, to 20 per cent. In 333 cases of excision of the elbow-joint, 12 per cent. died; 4.2 suffered amputation; in 6.9 per cent. there was ankylosis; and in 256 cases, or 76.87 per cent., there was mobility of the joint. One hundred adult cases of stone in the bladder, occurring consecutively in the practice of Sir Henry Thompson, were all, without exception, submitted to operation. Of 84 who underwent lithotrity, 4 only died. The mean age of the whole number operated upon was 62½ years. There cannot be a doubt that this death-rate will be much diminished as the public obtain more correct information on the subject.

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* Read before the Birmingham and Midland Counties Branch.

* Although the touch has been habitually resorted to for ages as a means of diagnosis, the common existence of ulcerative and inflammatory hypertrophy was never even suspected until the speculum revealed their presence. When once, however, the eye has demonstrated the existence of these morbid states, the touch, with its assistance, generally acquires the power of distinguishing the most minute changes; and it then appears quite a marvel to the practitioner *that the grossest morbid conditions should previously have always escaped his recognition.* In illustration of these remarks, Dr. J. Henry Bennet quotes an instance where an eminent surgeon who had devoted his whole life to the study of uterine disease, mistook, thus relying on touch alone, advanced cancerous ulceration of the os uteri for a simple ulcer, and promised that the patient would soon recover.—*Inflammation of the Uterus.* By J. H. Bennet. 2nd edition. Pp. 494-6.

Humbly craving, Mr. President, your forgiveness, and that of the Society, for this digression, consisting of thoughts which presented themselves to me during my holiday in Ireland, I will, if your patience be not exhausted, request a few minutes' attention to the subject of the Ophthalmoscope and Optic Nerve.

The invention of the instrument—barely in the sixteenth year of its publicity—is due to Helmholtz. In consequence of the peculiar structure and arrangement of the parts composing the organ of vision, the ophthalmoscope confers the power of inspecting important living tissues which, prior to its existence, were hidden from our view; and not only this, but of examining them, if the expression may be allowed, in a state of complete nudity. By no other instrument is it possible, in the living man, to inspect, without preliminary dissection, a nerve, or the whole vascular system of an organ of special sense. With no other contrivance is it practicable to watch at all hours the departure from its normal state of a tissue which is a prolongation of the brain itself, the optic nerve. In no other organ, and by no other method, is it permitted to witness that most interesting of phenomena, embolism of an artery, with the grave nutritional consequences thereof. Almost the whole of the local vascular changes incident to the occurrence of a small cerebral apoplexy are seen here in miniature—the capillary or venous congestion; the pouring out of blood in minute spots, or, if from a larger vessel, in quantity; then the alteration of colour of the clot; its rapid, or may be gradual, absorption; and the final effect of the presence of it upon the choroid in the production of atrophy and pigmentation. Suffer me to remark, that effusions of blood on the fundus oculi, unlike cerebral effusions, do not terminate in cysts; they are absorbed; a blanched spot or a deposit of pigment, or both, as already said, marking their past existence.

It will be evident to you that, where impaired vision is traceable to these last named changes, improvement by drugs can seldom be anticipated; and that timely examination by a competent ophthalmoscopist will be the means of averting serious loss of time, expenditure of money, and perhaps constitutional strength, on the part of the patient.

Having regard to certain opinions that have been published respecting effusion of blood on the retina, it is incumbent on me to remark that its presence upon the retina, optic nerve, or choroid, can always be determined with perfect certainty. When the refractive media retain their transparency, there can be no ground for a reasonable doubt. As to the degree of impairment of vision arising from blood effused on the retina, that will depend upon its size and site. The statement made on oath, in an action for damages for railway injury, by a London oculist, that a man without legs was as well able to walk as a man to see who had a clot on his retina, would be received in well informed ophthalmic circles with ridicule. In certain diseases of the kidney, and in cases of near sight, I have often found small hæmorrhages, yet the patient could see to read small pica.

Anteriorly to the employment of the ophthalmoscope, weakness of sight occurring in the course of Bright's disease was attributed to the circulation of urea in the brain. Now it is acknowledged to be due, in the large majority of cases, to special changes in the optic nerve and retina.[*] Nay, more, I speak my own experience when I tell you that a knowledge of existence of kidney-disease has sometimes been first contributed by an oculist who has explored the fundus. It has been well said, "What might become of many other blood-diseases, if we could but watch the organs affected as we do here?"

The views of those surgeons who everywhere proclaim that secondary changes of syphilitic origin owe their existence to the administration of mercury, receive complete confutation from ophthalmoscopic investigation of the retina, upon which membrane sometimes are discovered signs of specific disease at an early state after the primary affection, and prior to treatment by mercury.

Notwithstanding these and numerous other facts, there remain still certain oculists who deny the utility of the ophthalmoscope for the successful treatment of eye-diseases. The scepticism of these gentlemen led them at first to challenge the possibility of clear definition of the fundus being obtained by this means. After a time, however, under an overpowering weight of evidence, this point was conceded; but now they solace themselves in an ignorance of the practical application of the invention, by boldly declaring our treatment to be insusceptible of advance by its use.[*] The Society will perhaps condescend for a moment to examine with me this position. It amounts in many cases to this, that absolutely certain knowledge—ocular demonstration—of the diseased changes producing a malady, is of no more value to the prescribing physician than the general symptoms of such changes, even although those symptoms, as in the case of certain ophthalmic diseases by no means inconsiderable in number, represent no one disease in particular.

Let me take an ordinary instance of complaint, made by perhaps a dozen patients in a single morning at the service of the out-patient department of an ophthalmic hospital—"My sight, sir, is dim." Ophthalmoscopic observations, repeated hundreds of times by different observers, have proved that the cause may be spasm of the lens-muscle, hypermetropia, incipient cataract, a displaced lens, effusion into the vitreous humour, inflammation of the optic nerve or retina, apoplexy of the optic nerve or retina, blood on the vitreous humour, anæmia of the retina, atrophy of the optic nerve, or incipient glaucoma. Some of these conditions would demand no treatment, some immediate operative interference, some mercury, some purgatives, some steel, some strychnine, some change of air. You will, I am sure, agree with me that such instances as those referred to, however worthy of confidence the authors may have been at some period of their professional career, are now but the shifts of men who, having eyes, see not. Being themselves prejudice-blind, they would constrain others, who can see, to turn away from the greatest ophthalmic revelation of our period.[†]

I refrain from giving instances of serious blunders committed for want of competent knowledge of Helmholtz's method of investigation of the internal structures of the eye. The most dangerous enemies of ophthalmic progress are, I fear, surgeons who profess confidence in the instrument, but who, from some inaptitude or physical infirmity, have failed to master the elementary difficulties which beset all who take it up for the first time, and who yet profess to base their opinions in consultation upon ophthalmoscopic evidences, while in reality they merely make guesses founded on the general symptoms. To make the illusion complete, these persons tell their patients they will make written notes of what the fundus reveals. Such moral leprosy we can only deplore, and hope to lessen by exposure to the pure air of public opinion. "Medicine," says Dr. Latham, "claims a sort of moral respect in the handling; it calls upon the conscience as well as the intellect for more caution to avoid error, and more fearfulness of overstepping the truth." (*Clinical Lectures*, 1846.)

To those brethren who may feel disposed to take up the instrument, I would advise that one of the pupils of the surgeon's eye, as well as that of the patient, should be artificially dilated. I believe that then, for reasons explained by me in the BRITISH MEDICAL JOURNAL (June 1867, p. 628), no difficulty will be experienced in focusing the fundus. The normal colour of the optic nerve is not always the same in different persons. It may be pink, rosy, buff, brown, or grey, so variable is the colour of nerve-tissue. As regards inflammation of the optic nerve and retina, singly or combined, producing, when unrestrained, atrophy and blindness, I have witnessed many remarkable recoveries, which were entirely due to the priceless diagnostic precision got from ophthalmoscopic evidence. And I regret to say, cases continually present themselves where, for want of this, vision has been immediately impaired or lost, and the sad spectacle presented of a skilled artisan reduced to the level of a pauper, or made dependent on the sole exertions of wife and children for a maintenance.

I would fain believe enough has been adduced by me to impress my brethren, who have so courteously restrained any impatience provoked by my dulness, with the conviction that ophthalmoscopy is entitled to equal rank in their estimation with the stethoscope and speculum uteri. At the same time, I would not be understood for a moment to desire to disguise the fact that "the senses—the eye, the ear, the touch, however sharp and delicate they may naturally be, require a special course of training and education before their evidence can be trusted." (*Watson's Lectures*, 3rd ed.)

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[*] It is needless here to enlarge upon the importance of such distinction from a therapeutic point of view, or on how completely the pursuit of ophthalmic practice has bound up with it a competent knowledge of the pathological relation of diseases of remote, but connected organs; *e.g.*, embolism of the retina as a result of valvular disease of the heart; exophthalmos, or protrusion of the eyeball, with a retarded cardiac venous circulation; inflammation of the retina, with pathological changes of the kidney-tissue or brain; spasm of the ciliary muscle, with concussion of the spinal column, as in certain railway accidents.

[*] "And, after all, however painfully and slowly the power of diagnosis has been acquired, it is still imperfect; an assertion well borne out by the comparison of the state of our knowledge previous and subsequent to the discovery of Laennec."—*Diseases of the Chest*. By Dr. Stokes. 1837. Pp. 11 and 12.

[†] "It has been asserted that, by studying the varieties in the nature, mode of occurrence, succession, and modification of these symptoms, we can, independently of the information derivable from physical signs, arrive at a diagnosis of thoracic disease. This is the common assertion of those few who are still opposed to the use o mechanical diagnosis." (Dr Stokes on *Thoracic Diseases.*) "As diseases are bette understood, and we possess surer signs of discerning their seat and progress an events, the records of past experience become obsolete, and *so a necessity arises fo a new course of clinical observation.*" (Watson's *Lectures*. 3rd edit., p. 295.) "Th knowledge of the senses is the best knowledge." (*Idem.*)

USE OF BARNES'S DILATORS IN INDUCTION OF PREMATURE LABOUR.

By Robert S. Cross, M.R.C.S.Eng., Petersfield.

In the summer of last year, I was consulted by Mrs. S., a healthy young woman aged about twenty-five, pregnant for the third time. I had attended her in the two previous labours, and had effected the delivery in both instances by turning (head-presentations), accomplishing it with the greatest possible difficulty, on account of narrow pelvic brim, from projecting promontory of sacrum. The children were dead. I advised the induction of premature labour, and appointed a day in the second week of November for the purpose. I had in other cases brought this about either by rupturing the membranes, or by the ergot plan, as advocated by the late Dr. Rigby in the *Library of Medicine*. I chose the latter. The treatment commenced with a warm bath on the evening of November 11th.

The report on the evening of November 12th was, that she had been sick from the ergot; but no uterine action was induced. She was ordered to go on with the ergot. Mr. Holt, my assistant, visited her the next day (the 13th). I visited her at 8 P.M. On examination, I found the vagina cool and moist, the cervix uteri obliterated, and the os low down and well within reach, open to the extent of readily admitting the first joint of the index finger of the left hand, with which I made a little dilating movement for a few minutes, and then introduced No. 3 (smallest size) Barnes's dilator; it glided in off my finger, without any trouble whatever. This was filled, and left in for about an hour and a half, at the end of which time the next size was introduced as readily. This was gradually filled, according to the sense of distension expressed by the patient, and observed by the finger round the margin of the os. I allowed this to remain in about an hour, towards the end of which time, pains, not over strong, but regular and of a somewhat expulsive character, began. On removal and examination, the membranes were found presenting (tense during pain), and the os about the size of the top of an egg-cup. Hoping that the uterine action (for which there had been great inaptitude all along) would now go on vigorously, and wishing, for the child's sake, to keep the membranes intact to the latest moment, I waited. The action, however, quickly subsided; and I then introduced No. 3, the largest-sized dilator. This was gradually filled, and allowed to remain about half an hour. The patient complained a good deal of distension. There were no pains; in fact, there seemed just that suspension of the process of labour often observed under natural conditions. I ordered nourishment to be given at intervals, and that I should be sent for in case of pains setting in. This was at 8 A.M. on the 14th. Her condition remained the same throughout the day; when, after a few pains, she was delivered of a fine child at 7.45 P.M., not living. She made a quick recovery, without hindrance, being down stairs at the week's end.

The case appears to me to offer points of some practical value as to the mode of inducing premature labour by the mixed plan of ergot and Barnes's dilators. I had not much experience of these, or should, I think, in the present case, have ruptured the membranes immediately on the withdrawal of dilator No. 2. No. 3 seemed to paralyse the uterus for a time by over-distension.

With regard to the best mode of bringing on labour, that does not appear to me to be necessarily the best which is the quickest. That mode most recommends itself to me by which the uterus, with its contents, can be best brought into a condition simulating natural labour before local interference is resorted to, in order that, when this is done, it may not only be more facile, but quicker as to results at a period when time, to the life of the offspring more especially, is of the greatest importance. Then, as to freedom from danger, there are well-authenticated cases of death from the douche plan; and the introduction of a catheter or foreign body into the cavity of the uterus, without any preliminary, does not commend itself on the score of inducing action in that organ in anything like a natural manner. The relaxing effect of the warm bath, the sympathetic irritation induced by purgative action and abdominal friction, followed in due course by secale, pushed more or less, according to individual proclivity to its specific action, undoubtedly bring about that descent of the abdominal tumour, that shortened neck and patulous os, together with the moistened and ready state of parts so beautifully arranged by Nature as the first stage of natural labour. Arrived at this point, it appears to me that, by the aid of Barnes's dilators, we have it in our power to complete the labour quickly and safely for both mother and child; and, as the talented inventor could no doubt corroborate, it makes a good deal of difference in the facility of using these, whether the os is so high up as only just to be felt with the extreme end of the finger, or so low down as to be well within reach.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

MIDDLESEX HOSPITAL.

TRAUMATIC PNEUMOTHORAX AND GENERAL EMPHYSEMA FOLLOWING FRACTURED RIBS: RUPTURED SPLEEN: DEATH. WITH CLINICAL REMARKS.

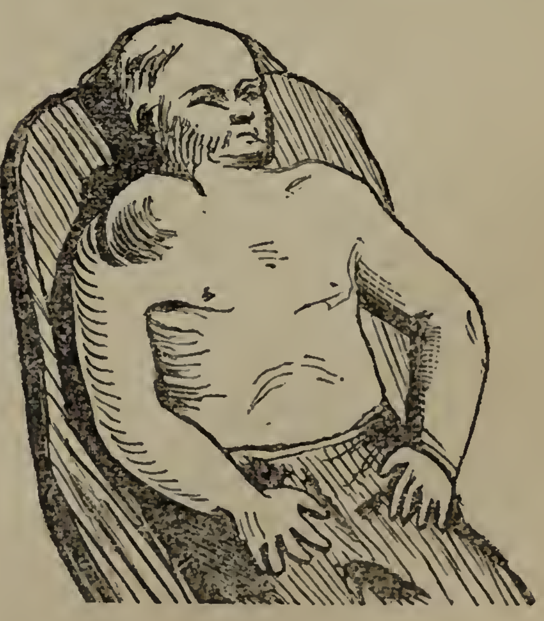
(Under the care of Mr. De Morgan.)

For the notes of this very interesting case we have to thank Mr. Thos. Flower, late Senior House-Surgeon.

J. T., aged 69, was brought to the Middlesex Hospital on the evening of Nov. 4th, 1867, having been immediately before run over by a cab. He exhibited slight collapse; his face was cold, and covered with perspiration. His expression was anxious. Pulse 88. Respirations 36, painfully laboured, and seeming to occupy the patient's whole attention. There was slight orthopnœa. His voice was feeble, and he spoke almost in a whisper. He complained of some pain in his right side. On exposing the chest, which was somewhat barrel-shaped, a peculiar and rather circumscribed tumour, of about the size of an ostrich's egg, was observed suddenly appearing at each expiration and disappearing in a similar manner during inspiration. It was soft, and felt like an almost perfectly distended and recent bladder, and occupied the infraclavicular and upper mammary regions on the right side. It disappeared entirely on applying slight pressure, to reappear when this was omitted. The region was slightly contused and tender. In this neighbourhood, and indeed over the entire chest in front, crepitation was easily detected under the skin. It extended also in the axillary and infra-axillary regions of the right side. The percussion-resonance was tympanitic over about the outermost and lowest two-thirds of the right chest in front; the remaining third presented nothing unusual in this respect. But, over the tympanitic region, very distant, or no respiratory murmur at all, was heard; whereas elsewhere bronchial respiration was present. The respiration was rather loud on the left side. There were no moist sounds anywhere heard, and no expectoration. A pad and bandage were immediately applied over the position of the tumour, and gave considerable relief. He was put to bed, a hot bottle ordered to the feet, and four ounces of brandy. He remained more comfortable for a few hours afterwards, but he did not sleep during the night.

In the morning, his skin was hot, and he complained of pain over the injured side, especially on coughing; the emphysema had become more general over the trunk; the respiration increased to 40; and the orthopnœa was more marked. He had brought up a few sputa tinged with blood. During the day, his pulse became more rapid, and the other symptoms more urgent. He was ordered to have five grains of compound soap pill three times a day, if necessary.

On the following day (Nov. 6th), the emphysema had extended over the entire trunk, arms, and the lower extremities as far as the knees. The face was also partially affected. Pulse 120; respirations 40. There were now some distant breathing heard at the right base, and sibilant *râles* over the right apex and whole of the left lung. We made the accompanying rough sketch, which gives an idea of the extraordinary appearance presented by the patient.



On Nov. 7th, there was a further increase of the emphysema, which now affected the face, so as almost to close up the right eye. He was weaker, and had passed a restless and very anxious night, tearing off the bandages for relief. They were accordingly not reapplied. The tumour still presented the same characters. His pulse was now 110; his respirations remaining at 40, but now almost entirely abdominal. The right side of the thorax had fallen in considerably; and sonorous and sibilant *râles*, were everywhere heard over the chest. An expectorant and an increase of brandy were ordered. He became delirious in the evening, and continued so during the night, refusing to take nourishment; the emphysema became universal; his pulse and respiration increased; and he sank on the following evening.

Autopsy, by Mr. H. Arnott, Surgical Registrar, twenty-hours after death.—There was subcutaneous emphysema over almost the whole body. The following ribs on the right side were found fractured: the first, behind; the second, close to the cartilage, and in front of the angle; the third, fourth, and fifth, in a line near the cartilages; the pleura was slightly torn through in front of the fractured fourth rib. The inner fragment of the third rib was forced through the pleura, tearing the adjacent intercostal muscles. On opening the chest, the right lung was discovered to be bound to the anterior chest-wall in the upper half by recent adhesions. There was a subcutaneous space in front of the second rib, of about the size of a hand, communicating with the pleura. Its walls were altered in colour. In the right pleural cavity were twenty-nine ounces of bloody fluid. The lower lobe was carnified throughout. In the posterior part of the upper lobe were two apoplectic clots partly distended by air. At a point corresponding to the tear in the parietal pleura, the lung was bruised and mashed, and the surface was becoming covered with lymph to the extent to which the pleura had been torn in the first instance. There was thickening and puckering of the right apex, with cretaceous nodules. The bronchi were injected, and filled with muco-purulent fluid. The left lung was congested at the base. The tubes were full of muco-pus; the pleura at the apex was thickened. There was extensive atheromatous disease of the aorta and aortic valve. The mitral valve was also much affected by old disease. On opening the abdomen, a quantity of black fluid blood was found in the peritoneal cavity. It had collected in the pelvis. There was also a good deal of clot about the spleen. This viscus at its inner end had an ecchymosed swelling of the size of a walnut, with an irregular tear in the centre of about the size of a threepenny-piece. On section, near to this extravasation, were seen many streaks of black coagula. The liver was tough, firm, and slightly nodulated on the surface, shewing on section increase of fibrous tissue and mapping out prominent islands of hepatic substance. The other organs were healthy.

Remarks by Mr. De Morgan.—It is probable that a very free opening into the air-cells and bronchial tubes had existed in the first instance; and that, in the part of the chest-wall corresponding to the bladder-like tumour, the connective and other tissue beneath the skin had been broken up, so as to prepare a cavity into which the air which freely entered the lung during inspiration would be at once, and as freely, forced during expiration. Without these conditions, the remarkable emphysematous tumour would hardly have occurred. We constantly find larger openings both in the lung and in the costal pleura, with consequent extensive and rapid emphysema, but without the existence of any local circumscribed air-tumour, filling and emptying with each respiratory act. The very fact, that this large circumscribed emphysema was present in the most marked degree from the first, while the general emphysema only came on gradually, and was, in fact, absent when the patient was first brought to the hospital, would point to the same conclusion.

ST. MARY'S HOSPITAL.

A CASE OF EXTREME EVERSION OF THE EYELIDS, WITH DISTORTION OF THE CARTILAGES.

(Under the care of Mr. Ernest Hart.)

The appearance of this patient was peculiarly repulsive, and her case one of a very troublesome and anxious kind. She was a young girl who had been under parish treatment for what appeared to have been chronic catarrhal ophthalmia. Her parents were in great poverty; she had endured many privations, and was in a very feeble condition. Her mother, who brought her to the hospital, stated that her eyelids had been in their present condition for three months, during which they had not seen the light. They presented, at first sight, the aspect of two large red granular polypi, of considerable size, wholly occupying the place of the aperture of the orbits, and encroaching on the cheek. On examining more closely, it was apparent that the lids were completely everted and much elongated; the mucous membrane was swollen, greatly thickened, and actually hypertrophied, and having a rough villous surface. The cartilages were stiffly bent over, and the lids folded like a glove turned inside out. It was impossible to reduce them. Scarification, astringents, and cold applications, considerably lessened the hypertrophy and congestion of the mucous membrane; and, at the end of three weeks, the eyelids were, with much trouble, reduced under chloroform, thickly painted with collodion, and bandaged with local elastic pressure. They soon again became everted, and could not be returned; and for ten days tannic glycerine was applied three times a day, and more or less successful attempts at reduction were made. Ultimately, they were again completely replaced, under chloroform, and could now be temporarily kept in position by cotton-wool pads; frequently, however, becoming again everted. The constant care of the house-surgeon (Mr. Hills) at last succeeded in restoring them to their normal condition; Mr. Hart ordering daily applications of tannin and alum, and a carefully nutritious treatment. In the end, the lids resumed their healthy character; the purulent discharge was arrested; and there remained only a nebulous spot on the left cornea, which marked the site of a chronic ulcerative keratitis, which had been checked.

The case was interesting, as illustrating the disastrous effects of neglect in an affection which at the outset was evidently mild, if not trivial; and the ultimate success of perseverance and careful attention to ordinary details in a case which at first seemed to invite heroic surgical treatment.

SAMARITAN HOSPITAL.

OVARIOTOMY PERFORMED TWICE ON THE SAME WOMAN.

(Under the care of Mr. Spencer Wells.)

The following case is of unusual interest, Mr. Spencer Wells having removed the right ovary of the patient in 1861, and the left ovary this year. A full report of the first operation may be found at page 90 of Mr. Wells's *Diseases of the Ovaries*. All we need state here is, that the patient was fifty years old in 1861, that the disease had then existed for seven years, that she had been tapped twelve times, and that Mr. Wells removed a large adherent multilocular cyst of the right ovary. In his report of the case (*loc. cit.*), he says: "On examining the left ovary, it was found atrophied; but a thin-walled single cyst, as large as an orange, was observed close to the uterus, within the folds of the left broad ligament. This was laid open by an incision, and emptied. . . . The cyst was so closely adherent to the uterus, that it could not have been removed with safety; and, as it is well-known that thin-walled single cysts in this situation seldom refill after they have been emptied, I thought it not probable that, as it was freely laid open, it could lead to future trouble; and the event has proved this hope to have been well founded."

The above remarks were written in 1864, three years after the operation; and good health was enjoyed until 1867, the patient earning her living as a cook. She had only menstruated twice since the operation in 1861. In May 1867, she began to notice some fulness of the vagina, bearing down of the uterus, and pressure on the bladder. This was followed by increasing size of the abdomen; and, in November 1867, Dr. Miles of Gillingham discovered a fluctuating tumour, as large as an uterus at the sixth or seventh month of pregnancy. She was admitted to hospital on November 15th; and this tumour was thought to be a cyst of the left ovary, or possibly the cyst of the broad ligament opened at the operation in 1861. The uterus was high, and its cervix dilated by a cellular polypus, which projected slightly through the os. Mr. Wells drew down the polypus, and cut it away with scissors. It was not larger than a walnut; but there was free bleeding, which was stopped by perchloride of iron and plugging. On November 27th, he tapped the cyst midway between the umbilicus and left ilium, and drew off seven pints of viscid ovarian fluid. On December 13th, the patient went to the Convalescent Hospital at Eastbourne, and remained till January 25th, 1868, when she was readmitted to the Samaritan Hospital in a very good state of general health; and, on February 5th, the second ovariotomy was performed. Dr. Junker administered chloromethyl. The cicatrix of the first operation was over the linea alba. Mr. Wells made the incision in this second operation parallel to the cicatrix, but an inch and a half to the left, and extending about an inch lower. Two epigastric vessels were tied before the peritoneum was opened. A cyst was opened and tapped. The only adhesions were to a coil of intestine, and to a piece of omentum, which also adhered to the abdominal wall beneath the cicatrix. These adhesions were easily separated. On withdrawing the empty cyst and a group of secondary cysts, the uterus was seen to be held up near the lower angle of the cicatrix by the pedicle of the tumour removed in 1861. The cyst now withdrawn had a broad attachment behind and to the left of the uterus. There not being room to apply a clamp or use the cautery without injury to the uterus, and the base being too broad for transfixing and tying, Mr. Wells cut away the cyst at its base, tying any vessels which bled as he went on, separating the outer end of the Fallopian tube from the part of the cyst to which it adhered, and leaving a small portion of cyst-wall closely adhering to the inner end of the tube and to the uterus. Very little blood was lost; but three vessels in the omentum were tied, five or six in the cyst-wall, and one large one between the separated end of the tube and the cyst. All these ligatures were cut off short, and returned. The ends of those on the vessels in the abdominal wall were brought out. Seven pints of colloid fluid were removed during the operation. The cyst-wall, and a group of secondary cysts about the size of a man's fist, weighed fifteen ounces. The progress after operation was satisfactory. The patient was sick twice, and had two opiates in the first twenty-four hours. On the day after operation, and on the third day, she had a short attack of very violent palpitation. The stitches were removed on the third day. On the sixth and seventh days, there was some fœtid discharge from the wound. On the eighth and ninth days, the bowels were cleared by enemata. On the eleventh day, profuse serous diarrhœa came on, and was checked by opiate enema on the twelfth day. One ligature on an epigastric vessel came away on the ninth day, and another on the fourteenth. After this, she was rather nervous, feverish, and subject to palpitation; but she went into Dorsetshire twenty-eight days after the operation, and continued to go on well, although subject to occasional fits of irritability and great craving for food.

This is the third case in which Mr. Spencer Wells has removed one ovary after the other had been previously removed. Two of the patients recovered, and one died. The first and second cases are recorded in the forty-eighth and fiftieth volumes of the *Medico-Chirurgical Transactions*. It seems that, after the removal of one ovary, if the other is found healthy, the rule is, that it remains healthy. It is only as a rare exception that it becomes diseased; and it is very satisfactory to find that, if disease should arise and progress, the first ovariotomy does not add much either to the difficulty or to the mortality of a second operation.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

ABSCESS IN THE ORBIT: ESCAPE OF DECOMPOSED MASSES RESEMBLING MUCOUS POLYPI: RECOVERY.

(Under the care of Mr. SPENCER WATSON.)

THE chief interest of the following case lay in its great obscurity during the early part of its course, and in the very rapid restoration to a healthy condition when the cause of the mischief was brought to light, and at the same time removed. It is also interesting from the unusual course taken by the disease, and from its successful issue under simply adjuvant treatment.

John M., aged 31, a hawker of fish and fruit, in good general health and well-nourished, applied at the hospital on May 19th, 1868, with a sinus and ragged ulcer situated near the right lacrymal sac, but a little to its outer side. He had suffered for some years from a watery eye, and about Christmas last a swelling had appeared in the spot now occupied by the ulcer, which, when opened, proved to be an abscess. About a month before his admission a thin scale of bone of about half the size of his thumb-nail escaped from this opening. At or about this time a fetid discharge commenced from the right nostril, and this had continued ever since. His sight was little or not at all affected.

On admission, in addition to the ulcer and sinus, there was a slight fulness of the upper part of the cheek and side of the nose, and the eyeball was pushed a little towards the temporal side of the orbit. There was little or no overflow of tears; a probe passed into the sinus found its way directly backwards to the apex of the orbit, and reaches a depth of a little over three inches. On a subsequent probing this sinus was found to communicate with the antrum and nostril, the probe passing in an oblique direction downwards. No bare bone was felt in either direction. The nostril was obstructed, and there was a very offensive discharge constantly escaping from it.

Injections of a lotion containing one part of tincture of iodine to five parts of water, were used with the India-rubber bottle syringe, the tube of which was passed into the sinus under the orbit. This caused a free flow of mixed lotion and pus from the right nostril. This was done twice or three times a week, till the morning of June 3rd, when he suddenly felt something in his throat and posterior nares, which he managed, after considerable effort and choking, to cough up.

The material which he brought up consisted of four or five dirty-white lumps of a soft pulpy nature, varying in size from that of a cob-nut to that of a large walnut, and having the most abominably stinking odour. In the choking efforts to bring up these offensive lumps he swallowed some portion of the mass, and was very ill for the rest of the day, vomiting and feeling much prostrated, so that he was compelled to keep his bed.

From this day, however, the sinus began to heal up, and by June 20th had entirely closed. There was still a slight discharge from the nostril at that date, but his health had so much improved and he suffered so little inconvenience that he ceased attending the hospital.

An examination of the decomposed mass gave no evidence of any structure whatever; but, from the shape and smooth surface of one of the pieces, it seemed clearly to have been a polypus that had sloughed and separated; and taking into consideration the circumstance that a thin shell of bone had escaped answering the description of the orbitar plate of the ethmoid or of the superior maxilla, together with the course taken by the probe in the exploratory examinations, it seems most likely that the polypus was originally attached to the upper part of the antrum, and had caused absorption and exfoliation of the surrounding bones.

NEWMARKET INFIRMARY.

FRAGILITAS OSSIUM.

(Under the care of GEORGE B. MEAD, M.D., L.R.C.P. Lond.)

THOUGH mentioned in all complete systems of surgery, there is no doubt that fragilitas ossium is a rare disease, though the bones may, from advanced age, or the action of a peculiar animal poison upon the system, as the syphilitic, or the physical deterioration accompanying cancerous or scrofulous disease, become so brittle as to be readily fractured from violence; yet for them to do so spontaneously is very rare. A case, now in the Newmarket Infirmary, clearly belongs to the latter class.

M. F., aged 75, a spare female, of very irritable temperament and failing intellect, became an inmate of the Infirmary in January 1868. She was suffering from a bronchial affection attended with great debility, but gradually improved, and was able occasionally to leave her bed. About the middle of June she was not so well, and one day complained to the nurse that she was unable to get up, as her leg was broken. On examination, the right femur was found to be fractured in the middle third. The most careful inquiry failed to prove that there had been the slightest slip, blow, or any abnormal muscular action. From the patient's account, it is probable she only discovered the fracture on awaking. Splints and bandages were applied, but the old lady was so irritable and restless, taking every opportunity of loosening them, that it was impossible to keep them on.

Three weeks after the discovery of the fracture, the crepitus was as distinct as at first. The limb was kept in position as well as possible by means of pillows; but these the patient is continually shifting. She does not appear to suffer much pain, though at times she says the limb hurts her. During the past few days she has got out of bed, and, as the nurse reports, has borne some weight upon the limb, which now appears shortened, the upper portion of the bone riding over the under. No attempt has since been made to apply apparatus, as, from the patient's feeble state of health and advanced age, with her repugnance to their application, no good result could possibly follow. On July 10 and 11, she appeared to be sinking, but under the use of stimulants has rallied.

This case appears to be one of those in which the bones, from advanced age, have lost the greater portion of animal matter, the earthy preponderating. This view would be borne out by the length of time at which crepitus could be detected, and its peculiar distinctness quite equal to that of a recent fracture. Troja has laid it down that brittleness is not dependent on a superabundance of phosphate of lime, nor a diminution of gelatine; but one cannot conceive that it is impossible or improbable for the earthy matter to be in great excess. Bones of unusual lightness and fragility may be seen, which break under moderate pressure between the fingers. The majority of the cases recorded have occurred in syphilitic, scorbutic, or cancerous patients, but in this case there does not appear a trace of either. Goodwin mentions a case of a woman, who in the course of two years had no fewer than twenty-three fractures without any apparent predisposing cause than old age. Hamilton refers to a woman with mammary cancer who fractured her thigh in rising from a chair. Strack observed a case where the patient fractured her thigh in bed while sneezing. Sir William Lawrence attended a gentleman who had laboured for years under constitutional syphilis, who, when travelling on the top of a coach, rose in order to throw off his cloak, and, in doing so, felt something give way in his arm; he immediately said "I have broken my arm." The coachman thought him joking, but it proved to be so. Lisfranc says that in cancerous subjects the bones are softer, moister, and more engorged with fluids than in the healthy state. In the *Archives Générales* for July 1834, M. Robert relates the case, in the Venereal Hospital, of Josephine Thevenot, aged 25, who, four days before her death, on March 28th, had the left thigh fractured about the middle third in attempting to remove her for the purpose of arranging the sheets. No apparatus was applied. At the *post mortem* examination, all the bones were of the usual size, but a third their ordinary weight, more flexible, and easily broken. The long bones were easily fractured; the fractures comminuted, the fragments presenting numerous asperities. The fracture of the femur, which occurred during life, presented the same characters. The periosteum was detached with great facility. All the bones were of a deep red colour, and easily cut by the scalpel. Under the periosteum a layer of osseous tissue was found about half a line in thickness, which seemed almost reduced to dust, and disorganised. The medullary cavity of the long bones was considerably increased at the middle of the thigh; the osseous cylinder was scarcely a line thick.

REVIEWS AND NOTICES.

THE CATALOGUE OF THE PATHOLOGICAL MUSEUM OF ST. GEORGE'S HOSPITAL. Edited by Dr. OGLE and Mr. T. HOLMES.

FEW kinds of medical works are more useful and deserving of gratitude, more laborious, and yet so thankless, as the task of preparing really well-digested, honest, thorough, and well-arranged catalogues of public hospital museums. Our own metropolis is, however, becoming rich in such treasures of reference and study; and, besides the noble catalogue of the College of Surgeons' collections, we have excellent catalogues of several of the London hospitals. We are indebted to the liberality and the energy of the staff of St. George's Hospital, and especially to the remarkable energy and ability of Dr. OGLE and Mr. HOLMES—who both seem capable of almost any amount of hard professional work—for an invaluable catalogue to the rich collections in the Museum of St. George's Hospital. It is a full, careful, singularly well arranged, and most satisfactory book. We know the collection well, and have been gratified to find how admirably its wealth and significance are here displayed and illustrated. It possesses some valuable distinctive features, to which we can only very briefly refer. It contains the results of the labours of many eminent pathologists. The collection was founded chiefly by Sir B. Brodie, and comprises all the preparations and drawings on which his two famous treatises on the Joints and on the Urinary Organs were based. It was continued by Mr. Cæsar Hawkins, who has added several hundred preparations, elaborately dissected and fully described by himself. Further, it contains the great collection of obstetric preparations, originally commenced by Dr. John Clarke, which was used for many years to illustrate the midwifery lectures of himself and his successors, and finally came into the possession of St. George's Hospital by the liberality of the late Mr. Stone. This ample groundwork of a complete pathological museum has been enlarged by the labours of a succession of eminent pathologists, who have found the pursuit of pathological anatomy the best avenue to professional distinction, and who have acted as curators of the museum. Amongst these may be mentioned Mr. Prescott Hewett, to whom the museum and the *post mortem* records generally owe their present shape; the late Mr. Gray, who was the original projector of the present published catalogue, and who had commenced its printing just before his sudden death; and Mr. Holmes and Dr. Ogle, known in London as pathologists of unwearied zeal and rare accomplishment.

The descriptions of the preparations are accompanied, in almost all cases of any interest, by a short account of the history during life, and by references to the hospital *post mortem* and case-book. This book is itself a marked feature of the system pursued at St. George's. It was founded by Mr. Prescott Hewett, and contains a full account of the *post mortem* examination and of the history of every case in which the body has been examined during a period of twenty-eight years. It constitutes, perhaps, the fullest mine of pathological information which has been as yet collected at any single institution; and its plan is now followed at St. Mary's, and, we believe, many other hospitals.

In the arrangement of the catalogue, simplicity and ease of reference have been chiefly sought. In order to secure the first requisite, no subdivisions have been made; the museum being merely arranged in the obvious anatomical series. For ease of reference, each of these series is accompanied by an index of its own, in which the various points illustrated by each preparation are arranged under the three heads of Anatomy, Pathology, and Medicine or Surgery. Thus, in the case of fractures, the anatomical index to the series shows the bone and the part of the bone which is involved; the pathological, the state of the fracture with respect to union or non-union; and the surgical, the kind and course of the fracture, and any surgical complications, such as injury to neighbouring parts, joints, etc. The whole volume is also accompanied by a full general index.

In the museum, the arrangement of the catalogue has been followed, each series being arranged in a compartment of its own, with its own portion of the general catalogue and index. Thus the consultation of the museum by students is greatly facilitated. Cataloguing is a difficult art, and it has been practised here with a success which leaves us all the debtors of those who have undertaken and successfully accomplished this toilsome labour of love.

HOARSENESS, LOSS OF VOICE, AND STRIDULOUS BREATHING, in Relation to Nervo-Muscular Affections of the Larynx. By MORELL MACKENZIE, M.D.Lond., M.R.C.P., Physician to the Hospital for Diseases of the Throat, and Assistant-Physician and Lecturer on Physiology at the London Hospital. London: 1868.

No one has done in this country more than Dr. MACKENZIE to elucidate the pathology and treatment of disease of the throat and air-passages so common in our climate. The attention he has paid to the influence of the nervous system in throat-affections, has met, in the mode of treatment by electricity usually followed out by him, with much success. It is chiefly to shew the unquestionable advantage to be obtained by the direct application of electricity to the vocal cords in nervo-muscular affections of the larynx, that Dr. Mackenzie puts forth this little book.

The various affections are divided into Diseases of the Motor System and Diseases of the Sensory System. The latter, including Hyperæsthesia and Anæsthesia, are disposed of in a short chapter. In the former class of cases, however, the several paralyses are individually treated, in a systematic manner, as Paralysis of the Tensors and Paralysis of the Laxors; the definition, causes, symptoms, treatment, etc., being clearly given, and characteristic examples appended. The records of the rapid cure of cases in which loss of voice had existed for months and years, by the simple and direct application of electricity to the cords by Dr. Mackenzie's "laryngeal electrode", are well worth perusal.

The volume is illustrated by some very good drawings; and full descriptions are given for the use of the electrode and the various remedies which have proved successful in Dr. Mackenzie's hands. Altogether, the book is one which deserves the attention of the profession.

NOTES ON BOOKS.

The Stockfeeder's Manual, etc. By C. A. CAMERON, M.D., Professor of Hygiene, Royal College of Surgeons, Dublin. London: Cassell, Petter, and Galpin.—Those of our readers who are interested in agricultural pursuits will find in this work a most clearly written yet learned account of the principles involved in the feeding of animals which are reared for human consumption, as well as most useful information for the detection of meat unfit for food.

Water-Analysis. By J. A. WANKLYN and E. T. CHAPMAN. Trübner and Co. London: 1868.—One of the distinguishing features of this work is the great shortening of the processes of analysis, a few hours being sufficient to accomplish that which formerly required a week. The practical effect of this is, that water-analysis will become generally practicable, and within the reach of medical officers of health and medical practitioners. It is quite practicable to have a daily examination of the water supplied by each company to the metropolis. The extreme delicacy of the new methods is very remarkable. "Parts in one hundred million parts of water" are the quantities dealt with. The difference between good and bad water is shown to depend upon these minute quantities. The great efficacy of filtration is brought out in strong relief. The water of the Thames, which is not good as it exists in the river, becomes, on proper filtration, quite equal to the water off the moors of Derbyshire, or to that of Loch Katrine. The book is the work of two of the ablest young chemists of the day. Mr. Wanklyn has rendered a great service to science and to sanitary progress by the remarkable skill and energy with which he has invented and developed this important improvement in water-analysis. The book is full of interest, and will be read by all with advantage. To medical officers of health, and others interested in water-supply and the examination of potable waters, it is indispensable.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 1ST, 1868.

ELECTRO-THERAPEUTICS.

IV.

IN the latter part of our last article, we spoke of the method of stimulating muscles and motor and sensory nerves more particularly. We said that the Faradic current should not be used when the current is to be passed through the central nervous system; and that, in such a case, the Galvanic current only should be employed. When a Galvanic current is passed through a part, the electrodes (*poles-rhéophores*) may be kept constantly applied to one place, or one electrode may be slowly drawn over the cutaneous surface. Remak termed the former stable (*stabil*), the latter *labile* (*labil*) Galvanisation. The strength of the current may be kept constant during its application, or it may be alternately increased and diminished. Fromhold recommends the latter method in some cases; but the advantage of it in any case is by no means clear, seeing that variation of the strength of the current produces the same effect as its opening and closure; viz., irritation.

Of the possibility of Galvanising the brain, so as to obtain mportant therapeutical results, there can now be no doubt. When a current is passed through the brain, its strength must be carefully attended to; for convulsions and extravasations of blood have followed the employment of too powerful currents. A current derived from ten or twelve small Daniell's elements is recommended by Benedikt; and, according to him, its applicaion must not be continued for more than half a minute at a ime. Should vertigo and congestion result, the strength of the current, and the duration of its application, must be diminished; and should congestion—notwithstanding these precautions—still follow the application of the current, the treatment must be abandoned. Galvanisation of the brain has been found of great service in some cases of paralysis dependent on a cerebral cause; t must not, however, be resorted to as long as the cerebral esion is in an active state. Benedikt recommends that the curent should be passed antero-posteriorly, when it is desirable hat the cerebral convolutions should be acted on; laterally, when he cerebellum or the base of the cerebrum is the seat of the malady. When the current is transmitted in an antero-posterior direction, the positive pole should, in most cases, be placed over he highest part of the vertebral column, and the negative pole on the forehead. Remak and Benedikt both lay stress on Galvanisation of the cervical sympathetic, in some cases where ymptoms depend on intracranial causes.

Regarding this, however, there is doubtless much yet to be done; for it is probable that some brain-symptoms are due to contraction of vessels, while others are due to dilatation; and it s not likely that Galvanisation of the cervical sympathetic, and he consequent spasm of vessels in the brain, can be beneficial in both classes of cases. To Galvanise the cervical sympathetic, Benedikt recommends the positive pole to be placed on the *manubrium sterni*, and the negative pole at the angle of the jaw pressed down on the carotid.

Undoubtedly, Galvanisation of the brain and of the cervical sympathetic, is a subject deserving the careful attention, not only of the physician whose chief concern is with the results of brain-disease as regards sensibility and motility, but also of the physician whose attention is specially directed to the mental aspects of the malady.

The spinal cord may be Galvanised—1. By passing the current through it in a longitudinal direction. Benedikt recommends the exclusive adoption of this method in neuralgia and convulsions, even when accompanied by depression of motility and sensibility. Forty small Daniell's elements may usually be employed. 2. By placing one pole over the medulla, and keeping it fixed there, while the other is drawn down the sides of the vertebral column. 3. By transmitting the current from the muscles or nerve-trunks to the cord, or *vice versâ*. To irritate the retina and optic nerve, Meyer recommends one electrode to be placed on the inner canthus, and the other over the temporal muscle. Weak currents only must be used, for too powerful currents may produce inflammation or paralysis of the retina. To irritate the gustatory nerves, one electrode should be placed on the tongue, the other on the neck. To irritate the auditory nerve, the external ear should be filled with tepid water, and the positive pole introduced into the meatus; the negative pole should be placed on the cervical vertebræ. The intestines may be stimulated by placing one electrode in the rectum, and the other in the mouth or on the surface of the abdomen. Every portion, except the point of the electrode, in the rectum, should be sheathed with vulcanite. To act on the bladder or prostate, one electrode should be placed in the rectum, and the other in the form of a bougie, sheathed with vulcanite everywhere but at the point, should be introduced into the bladder. To act on the uterus, one electrode should be placed on the os uteri; the other in the rectum, or on the sacrum.

Galvanism and Faradism are among our most potent remedies in cases of neuralgia. Meyer recommends the former in individuals of irritable temperament; while, in other cases, he recommends irritation of the skin, by means of the "electrical moxa". This consists in holding a metallic brush, connected with an induction machine, at a sufficient distance from the skin for sparks to be emitted. This is continued as long as the patient can bear it; it acts on the skin like any ordinary irritant. In addition to the great value of electrical treatment in convulsions, paralysis, hyperæsthesia, anæsthesia, and various other neuroses, we have the testimony of many as to its importance in the treatment of rheumatism and dropsy of joints, and of not a few as to its usefulness in some cases of constipation, spermatorrhœa, suppressed secretion—*e.g.*, of the feet, mamma—ununited fracture, ulcers, asthma, etc. Benedikt (*Electrotherapie*, p. 85) lays down the rule, that electricity must not be employed in cases of tabes and hysteria, where powerful signs of irritation are produced by it; in cerebral affections when signs of congestion appear; and in inflammation of joints in an active state. In his opinion, exacerbation of a malady ought never to be produced; if, in spite of every precaution as to strength, mode, and duration of application, the symptoms are rendered worse, the case is not at the time—perhaps not at any time—one for electrical treatment.

Treatment of aneurism by means of Galvanism does not receive that general attention which the importance of the subject demands; in the hands of many surgeons, most satisfactory results have been obtained.

The electrolytic treatment of tumours is also a subject deserving more attention than it receives. The Galvano-caustic, too, is a simple and most efficient cautery for the removal of polypi, cauterisation of sinuses, fistulæ, bleeding vessels, etc., and deserves to be more frequently used. In short, electricity is a great therapeutical agent which it becomes us all to study with the greatest care. We anticipate that its value will increase day by day, as the lines become more sharply drawn between the cases in which it should, and those in which it should not, be used; and as the principles on which it should be employed, and the methods of its application, become better understood. There is yet much to be done, and there is need for more labourers than there are at so fruitful a harvest.

These brief sketches will accomplish the end for which they were intended, should they lead any to pay more attention to electro-therapeutics than they have hitherto done.

Although we have often entered somewhat into detail, we would not for a moment have any one suppose that we have done more than merely sketch the subject. We recommend a most careful study of the subject in the books. We are glad to see that a translation of Duchenne's work, *De l'Electrisation localisée*, is about to appear; so we would also strongly recommend a perusal of *Electro-therapie* by Benedikt (Vienna 1868, 8vo., pp. 485); and *Die Electricität in ihrer Anwendung auf praktische Medicin* by Meyer (3rd edition, Berlin 1868.)

ERRATUM.—Article I, July 11th, in second line of third paragraph, for "is now entirely superseded", read "is now *almost* entirely superseded."

THE NEW NOMENCLATURE OF DISEASES.

THE final revise of the new Nomenclature of Diseases, drawn up by a Joint Committee appointed by the Royal College of Physicians of London, is to-day issued. Final, however, for the present only; for on the title-page stands the intimation that it is subject to decennial revision. We have already given some account, from an examination of an earlier proof-copy, of the origin of this great medical work, and the agencies by which it has been carried out. Thanks to the long continued labours of those many eminent men whose names we gave, and thanks especially, as all admit, to the indefatigable labours of Dr. Sibson, the Secretary of the Committee and general Editor of the work, it stands now complete, after having undergone long and searching criticism, and is accepted henceforth as a standard Nomenclature—a thorough and universal dictionary and grammar of diseases—by the corporations and by the great public departments. Editions will, we understand, be issued in the name of each department, bearing upon the face the authority and sanction of the head of the department. Thus is well filled a great want of medical science; and on what principles and by what method, we may most fairly leave it to the pen of the Chairman of the Committee, Sir Thomas Watson, to explain. The following is from his pen, and we shall not spoil it by taking from, or adding to it, a word.

"For perfecting the statistical registration of diseases, with a view to the discovery of statistical truths concerning their history, nature, and phenomena, the want of a generally recognised Nomenclature of Diseases has long been felt as an indispensable condition. The advantages accruing from accurate statistics of disease are likely to be the greater and the surer in proportion as the field of investigation is the wider. The statistics of a single town may be instructive; but more instruction will be obtained from the compared statistics of various and many towns. This is alike true of different districts of the same country, and of different countries and climates; and the most instructive sanitary statistics would be those which related to the whole of the inhabited portions of the globe.

"For the registration of such statistical facts, it is clearly requisite that there should be an uniform Nomenclature of Diseases, coextensive with the area of investigation; and, taking the largest area, the universal globe, the Nomenclature would need to be one that can be understood and used by the educated people of all nations. Among the great ends of such an uniform Nomenclature must be reckoned that of fixing definitely, for all places, the things about which medical observation is exercised, and of forming a steady basis upon which medical experience may be safely built. Another main use of the statistical registration of diseases on a wide scale is, that it must tend to throw light upon the causes of disease, many of which causes, when duly recognised, may be capable of prevention, removal, or diminution. When a general and uniform Nomenclature of Disease has once been carefully framed, when we are sure that medical observation is occupying itself everywhere with the selfsame diseases, the value of statistical tables becomes very high, as representing the course of events in disease, under various circumstances of time, place, season, climate, manners and customs, age, sex, race, and treatment. This general, or common, or *standard* nomenclature need not be imposed upon every nation and people as its proper nomenclature. It could not. It would be unintelligible by the people at large, and embarrassing to those by whom the necessary returns must be made. But the nomenclature proper or peculiar to each country, and which may be called its *national* nomenclature, should be readily convertible into the *standard* nomenclature. The one or the other of these standard and national nomenclatures may first be framed by an English (or by any other) Committee, or the two may be framed simultaneously.

"The Committee appointed by the Royal College of Physicians of London have prepared a Nomenclature suitable to England, and to all countries where the English language is in common use. For each name they have supplied the corresponding Latin term, which is the language of ancient science, and probably the fittest language for a nomenclature common to all the world; and also the equivalent term in the three modern languages which are the richest in medical learning and literature, the French, the German, and the Italian languages; and in this way they hope to have laid the foundation for a Nomenclature of Diseases in any language extant on the earth. In the English list of names, it seemed desirable that as little deviation as possible should be made from those employed by the Registrar-General of England; otherwise his settled plans and his forms of returns, which have been followed for years, would require to be remodelled; the comparison of future with past returns would be made difficult and perplexing, if not impossible; and a damaging break would be caused in evidence which becomes more and more trustworthy and valuable in proportion as it is prolonged and continuous.

"Again, it is desirable that all lists should consist, as much as may be possible, of short names—names comprised in one word, or in the fewest words; also, in the nomenclature proper or national, that they should be names in common and popular use, especially when these are single, or short, and distinctive, and imply no erroneous or doubtful theories. Names are not necessarily to be excluded, however, merely because they may seem to express only vague or imperfect knowledge; such names as Dropsy, Convulsions, Palsy—disorders which may severally depend upon various and different morbid changes within the body, not always easy of recognition. It has been well observed by Dr. Farr, whose aid has been of great value to the Committee, that the refusal to sanction such terms as these in the registration of diseases 'would have an obvious tendency to encourage reckless conjecture' in making returns. Some names (as Small-pox) speak for themselves; many (as Diphtheria) require to be defined, for the sole purpose, however, of identification; to others (as Bright's Disease) it is expedient, for the same purpose only, to append synonyms.

"When fixed names have been given to diseases, their classification becomes a matter of some importance. A good classification aids and simplifies the registration of diseases; helps towards a more easy comparison and knowledge of them, and towards the storing of experience respecting them; and facilitates the discovery of general principles from the collected, grouped, and compared phenomena. But a good classification is a very difficult matter. Diseases might be classified according to their symptoms; to their causes; to their intimate nature; to the tissues or to the systems of the body that are affected; or to the parts of the body as they lie anatomically. After much consideration, the Committee have resolved that the proposed classification of diseases should be based upon anatomical considerations. In subservience to this anatomical distribution, diseases may also be grouped as being general or local. General diseases are such as affect the whole frame, rather than any special part of it. Local diseases are such as occupy special parts of the body. General diseases may be conveniently subdivided into two sections, A and B. Section A comprehends those disorders which appear to involve a morbid condition of the blood, and which present for the most part, but not all of them, the following characters. They run a definite course, are attended with fever, and frequently with eruptions on the skin, are more or less readily communicable from person to person, and possess the singular and important property of protecting those who suffer them from a second attack. They are apt to occur epidemically. Of these epidemic visitations, Dr. Farr observes, that they distinguish one country from another, one year from another; have formed epochs in chronology; have decimated armies and disabled fleets: have influenced the fate of cities, nay, of empires. Section B comprises, for the most part, disorders which are apt to invade different parts of the same body simultaneously or in succession. These are sometimes spoken of as constitutional diseases, and they often manifest a tendency to transmission by inheritance."

We shall enter upon a more detailed examination of the book as soon as space will allow.

CHOLERA ALARMS.

IT is not unnatural that, at a time like the present, people should be alarmed at the notion that cholera is again appearing among us. The statements made in the journals that cases have occurred, have fostered in some minds a fear which has no apparent foundation in fact. The terms diarrhœa and cholera are so often used as meaning varieties in degree of the same disease, that, when an unusual number of deaths from diarrhœa are reported in the weekly returns of the Registrar-General, it is at once assumed that Asiatic cholera is threatening the country; and the severe cases of diarrhœa with cramps are apt to be so reported. There is every reason to believe that the two diseases are different, not only in degree, but in kind. Extreme heat of weather, incautious use of unsuitable drinks or of food, may bring on diarrhœa; but it would seem that, in the case of cholera, some special poison is present which produces the characteristic symptoms of this rapidly fatal disease. To prevent this poison from entering the country, or, if it have entered, to prevent it from spreading, by the energetic application of antiseptics and by isolation, should be the effort of every medical man.

We have no idea of the actual nature of this poison; but experience and analogy have taught us to believe that it is probably due to germs which, either travelling through the atmosphere, or brought by individuals, enter the system by the respiratory or the intestinal tract. If, then, these germs are absent, no such fear need be entertained; nor ought cases of severe diarrhœa to be called cholera, although they may have some symptoms in common, seeing that the cause of the disease is different.

To further illustrate this subject, we can take the popular fallacy that smells are injurious as such. There can be no doubt that it is unwise to breathe a vitiated atmosphere; a disagreeable smell may cause nausea or irritation of the alimentary canal, or it may deprive the surrounding atmosphere of a certain amount of oxygen; the smell of tallow-chandling, or that proceeding from gas-works, is by no means pleasant, but it is not unhealthy; on the other hand, a person may be attacked with ague by living in a fenny country where no smells abound; and, in the case of zymotic diseases, the poison enters the individual, and no smell is noticed. It is, in fact, important to make a distinction between bodies which are decomposing and capable of generating disease, and those which only produce disagreeable smells by generating harmless gases. In these cases, as in the case of cholera, the germs which are generated are the active causes of evil, and not the smell which accompanies them. Thus we may explain why it is that bad smells may produce no disease, while it may be caused by material undergoing change without giving rise to any products which will produce in us the sensation of smell. A smell, then, far from being in itself injurious, rather only warns us of possible danger, as it may arise from decomposing matter capable of producing disease. A miner uses a Davy lamp from fear of a known danger, but it is not the livid flame he fears, but the gas which causes it; so we should look on the smell not as a cause of danger, but as a signal to warn us from it.

Thus, there is no cause to fear an outbreak of cholera, unless the seeds of contagion have once appeared excessive heat, bad smells, or deficient water supply will not cause it, though there can be little doubt that, when once it does break out, these conditions are most active in propagating the disease, and in generating fresh doses of the poison. Too much attention, then, cannot be given to sanitary measures; but in all cases the great object must be prevention, by the use of such agents as carbolic acid, which have the power of arresting the growth of organic matter. To such scientific means must we look in the future for the stamping out of these epidemic disorders; and the time may come, when we shall view them with as little concern as we should now an outbreak of small-pox in a well vaccinated community.

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THE epidemic of fever at Lima and Callao, although not yet gone, is rapidly diappearing.

AT the quarterly preliminary examination of the Royal College of Surgeons in Ireland just held, forty-two candidates presented themselves for examination.

THE members of the Sanitary Committee appointed by the Bath and Bristol Branch are: R. W. Coe, Esq., President; F. Brittan, M.D.; J. G. Davey, M.D., M.R.C.P.Lond.; David Davies, Esq.; R. W. Falconer, M.D.; W. B. Herapath, M.D., F.R.S.; S. Martyn, M.D.; and Charles Steele, Esq., Honorary Secretary.

WE are informed that some of Mr. Lockhart Clarke's beautiful specimens of the brain and cord will be shown among Dr. Beale's series of microscopical preparations, at the President's *soirée;* also some of his important pathological specimens.

UPWARDS of three hundred deaths from sun-stroke are reported to have lately occurred within the metropolitan districts of New York within three days.

THE ROYAL FREE HOSPITAL.

WE are very glad to hear that our advice to the Weekly Board of the Royal Free Hospital has been so far taken in good part by the medical staff and by the Board, that, the staff having suggested that our recommendation of the formation of a Medical Committee, for the supervision of the internal medical and sanitary arrangements of the hospital, should be followed, the Board have authorised the staff to meet for the first time to consider the application of the vacant house-surgeoncies, and to examine into the general internal arrangements of the hospital. The recommendations of the Medical Committee as to these appointments have been adopted by the Board. There remains the consideration of the more important question of the internal arrangements. We have reason to know that the accuracy, moderation, and importance of the statements in our report are fully recognised by the staff at large, and were specially adverted to at their late meeting; and we draw the best auguries from the first step which the Board have taken in the long path of reform which it remains for them to tread.

THE BIRTH-PLACE OF CHOLERA.

INDIAN advices announce that enormous crowds have flocked this summer to Pooree, to pay a devotional visit to the shrine of Juggernath. Cholera, which first made its appearance amongst the pilgrims, has begun to spread over the station. The Government have issued a notification in the *Gazette* warning the people against visiting the shrine; but, as few of the pilgrim class read the official paper, some more general and more efficient means of deterring the would-be pilgrims from carrying out their object should be adopted.

SUPERANNUATION OF IRISH POOR-LAW MEDICAL OFFICERS.

IN another note we announce that the Government has granted a pension to Dr. McDonnell, late Surgeon to the Mountjoy Prison, although the whole of his time was not occupied by that office; and we rejoice to say that Dr. Mackesy is about to move that the College of Surgeons should have a Bill drawn out to procure the superannuation of Poor-law officers separately, for the addition of other offices only retarded the Bill which has just been withdrawn.

ENGLISH AND INDIAN TEMPERATURES.

STAFF-SURGEON Major Thring writes to us:—I have been frequently asked, during the past month, if the heat we have experienced was anything like the heat of India. Perhaps some of your readers may like to see the register of the thermometer taken at Allahabad, the seat of Government in the North-Western Provinces of India. The register is from the Report for the year 1867, published by Dr. Murray Thomson, Meteorological Reporter to the Government, North-Western Provinces, and Professor of Experimental Science, Thomason College, Roorkie.

Register of Thermometer at Allahabad during 1867, *in Shade.*

Month.	Mean Day Temperature.	Mean Night Temperature.	Mean Temperature of the Month.	Rainfall.
January	70	53	61	.60
February	74	55	65	1.7
March	90	68	80	—
April	99	77	89	—
May	101	83	92	1.50
June	97	84	91	4.89
July	88	82	85	15.10
August	88	80	84	8.40
September	87	80	84	20.90
October	86	73	79	1.9
November	78	62	70	—
December	71	57	64	—

THE COLLEGE OF SURGEONS OF IRELAND.

WE understand that the Council of this body, having been called on by some of the Fellows to consider the expediency of seeking a new charter to legalise vote by proxy and the separation of the School from the licensing department of the institution, unanimously resolved that it was not expedient to do so.

NITROUS OXIDE GAS AS AN ANÆSTHETIC.

THE employment of this gas has become permanent in many of the London hospitals. At the Dental Hospital, Soho Square, a large gasometer, capable of containing over twenty gallons, has been erected in the extraction-room, and a constant supply of gas furnished for daily use.

THE HEALTH OF THE WIMBLEDON CAMP.

SINCE our report last week, the Wimbledon meeting has broken up. During the latter end of the week a few tents had disappeared, and on Monday morning there was a general breaking up of the whole camp. During the last few days commencing with Thursday, a rapid decrease in the amount of sickness in camp was observable, owing, doubtless, to the marked fall of temperature, and the departure of many of the volunteers. Thursday was quite chilly, especially in the afternoon, and made a difference of over forty in the number of cases treated at the hospital, as compared with that on the previous day. Had it not been for the change, the amount of illness would probably have been considerably in excess of past years. As it was, it had increased rapidly during the week. The volunteer hospital was quite empty on Thursday, however, all the patients having left. The only accident of any importance which occurred during the whole meeting was that of the lady we alluded to last week, who fell and fractured her radius. She is, however, progressing favourably. We owe to the courtesy of Surgeon-Major Wyatt, Surgeon to the National Rifle Association, a detailed medical report of the meeting. From this it appears that there was an average number of 2,159 sleeping in camp (including volunteers 1,172, army 548, police 232, camp-followers 207); that 309 were treated for diarrhœa, 30 for fever from exposure, 5 for rheumatism, 41 for dyspepsia, 6 for herpes, 10 for contusion, 3 for incised wounds, and 4 for abrasions. The total of sick for the army, volunteers, police, and camp-followers, was 439, of whom 403 were treated in camp, and 36 were treated in hospital. In addition to the usual hospital accommodation afforded by the Association, we must mention that Assistant-Surgeon W. G. Shepherd, of the Victoria Rifles, went down and did duty with his regiment. He provided a tent with every necessary at his own expense; and not only did he give his services to his own corps, but to every one in camp who chose to come for relief. The following is the list of cases treated by him, which comprises not only civilians and volunteers, but a considerable number of men of the Guards. Those of the Victorias requiring to lay up were attended to in their own tents by Dr. Shepherd. Diarrhœa, 94; rheumatism, 1; erysipelas, 3; nettle-rash, 1; burns, 4; sore throat, 1; severe lacerated wound of finger, 1; incised wounds of hands and fingers, 7; contusion of knee, 2; inflammations of eyelids, 4; giddiness with great lassitude arising from exposure to the direct rays of the sun, 3; total, 121.

A GRATEFUL COUNTRY.

A BILL, granting pensions to the widows and orphans of the physicians who died in their duties attending on cholera patients, was sent down, on July 5th, to the Chamber of Deputies of Italy, from the Senate, amended and simplified. It has now passed both houses, and only awaits the royal sanction to become law. The amounts are, £20 annually where there are no children, £25 where there are one or more orphans, £35 where there are three or four, and £40 above that number. The intention is good, of marking a sense of grateful obligation, although the amounts are small.

SCHOOL OF PHYSIC, DUBLIN.

DR. MOORE has been chosen Professor of Physic; the electors being the Fellows of the College of Physicians, and the other candidates Drs. Freke, Foot, and H. Kennedy.

THE PRESENT STATE OF THE WATER-SUPPLY IN LONDON.

MESSRS. J. A. WANKLYN and MILES H. SMITH, of the London Institution, have communicated to us the result of an examination made on Wednesday, July 29th, of the water now being supplied to London, and also of the water of the Thames at London Bridge. The latter shows an amount of putrescible matter which is an index of danger to the health of London; the figures are 1.55 free, and 1.00 albuminoid ammonia (per million). There is no doubt that the sewage which is discharged at Barking is washed up to London Bridge; where the water shows also a solid residue of nearly 266 grains per gallon of sea-salt. This is a very unsatisfactory state of things, and one fraught with danger. The river is beginning to smell very badly; and, if it gets much lower, it will become a dangerous nuisance. The sewage ought certainly to be discharged lower down the river. It is satisfactory to know that, according to the same reliable authorities, the water supplied by the New River Company is in excellent condition. The following are the figures; it will be observed that the West Middlesex water, although not so good as the New River, is very fairly filtered.

	PARTS PER MILLION OF WATER.	
	NH^3, free.	NH^3, albuminoid.
New River (Laboratory of the London Institution	0.005	0.060
West Middlesex (Thames), taken from the main in Great Portland Street	0.01	0.09
Thames at London Bridge at 12 (noon), July 29th, 1868	1.55	1.00

VACCINATION IN SHEFFIELD.

WE see with great satisfaction that in Sheffield, where vaccination has been notoriously neglected, and where the amount of sickness and death from small-pox has been lamentable (as we lately pointed out), the Board of Guardians have now appointed an officer, under the Vaccination Act, to see that the law is carried out, and the health of the people protected. Mr. Earle, the officer appointed, seems to have acted with a just and honest public spirit; and one of the first persons summoned was one of the guardians—"a herbalist, doing a little doctoring in his own way"—who had neglected to comply with the law from certain foolish and mischievous crotchets, of which he has been the public advocate. The omission to protect children from small-pox by careful vaccination is both a crime and a folly; fortunately it is now punishable by a summary process.

THE COMMEMORATION OF A GREAT DISCOVERY.

On June 27th, a ceremony took place at Boston, aiming at the perpetuation of one of the greatest discoveries of this century—the abolition of pain in surgical operations, and in a multitude of diseases, by the introduction of ether as an anæsthetic agent. A monument, commemorative of the discovery, was handed over to the municipality by Dr. Bigelow; and due honour was done to the American, Horace Wells, its immediate author, and to Sir Humphry Davy, whose fertile initiative suggested the use of such an agent so applied, and whose suggestion of nitrous oxide gas has quite recently regained full vogue, and has been applied successfully in many thousand cases.

THE VOLUNTEER SURGEONS AND ARMY MEDICAL OFFICERS IN EDINBURGH.

We lately noticed the admirable arrangements for the Edinburgh Review, and the cordial understanding between the medical officers of the regular and volunteer armies on the occasion. We are glad to learn further, that on Tuesday the volunteer surgeons in Edinburgh, wishing to show their appreciation of the kindness and assistance shown them on the occasion, entertained the army medical officers at the University Club, Professor Maclagan in the chair. The meeting passed off admirably, the chairman paying a complimentary tribute to Dr. Fraser (whose unavoidable absence on the occasion was regretted) and the army medical officers in general for the good feeling which had always been shown by them towards the volunteers. It was unanimously resolved at the meeting that the volunteer medical officers in Edinburgh should meet annually, and discuss matters affecting this branch of the service.

MERCERS' HOSPITAL, DUBLIN.

The physiciancy vacant by the appointment of Dr. Moore to the chair of Physic and physiciancy of Sir P. Dun's Hospital has been filled by the election of Dr. Eames. The medical officers are under Act of Parliament the electors, but it is rumoured that this appointment, as well as the last one made, will become the subject of litigation.

THE HONORARY DEGREES AT OXFORD.

Any names printed by contemporary journals as those on whom honorary degrees are to be conferred at Oxford, are published without authority, the Vice-Chancellor himself not having yet issued the list of names.

THE MOUNTJOY PRISON SURGEONS.

We recently called attention to the injustice involved on the enforced retirement without pension of Dr. McDonnell, F.A.S., from his position as medical officer to the Mountjoy Prison, to meet the views of certain civil administrators. The *Pall Mall Gazette* took up the subject energetically, and Mr. Pim moved for the correspondence. The Treasury have offered Dr. Robert McDonnell a retiring allowance of about one-fourth of his salary; and the offer was made as soon as the member for Dublin called for the correspondence on the matter. There has been great delay in producing the papers, but it is extremely desirable that they should see the light.

THE ELECTRICAL COMMITTEE OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

If travellers tell strange stories, home-staying correspondents send often equally curious bits of information for the delectation of their distant readers. Here is a paragraph from the London correspondence of our excellent contemporary, the *Indian Medical Gazette*.

"An incident occurred the other day which showed me how little some even well-informed physicians know of the recent advance in the therapeutics of electricity. I was speaking to a gentleman who is on the Electrical Committee of the Medico-Chirurgical Society; and, in the course of conversation, he said, 'It's all very well for them to talk of constant and interrupted currents; but what's to prevent my getting a continuous current, if I turn the handle of my machine rapidly enough?' I certainly was surprised; and I think those of your readers who have given any attention to the matter will be equally struck with this supremely ridiculous notion. Truly, a little learning is often a dangerous thing. Just conceive of the application of such a continuous current as this in certain nervous affections!"

E ben trovato. We are, it seems, to wait a very long time for the Report of the Electrical Committee; and, if many of the Committee require as much "preliminary education" as this distinguished *savant*, the Report might perhaps be definitely postponed without disadvantage. We trust that he will have read with profit the summary of electro-therapeutics, which one of the highest authorities in this country has just enabled us to place before our readers. The subject is one of deep interest hitherto greatly neglected in this country. There is only one hospital in London, so far as we know, where there is an efficient electrical room, and where electro-therapeutical treatment is resorted to with systematic care and intelligent discrimination of its various resources and powers for good and evil. We hope that these articles may be the means of eliciting more general attention to the subject, and indicating the approved lines of research and standpoints of knowledge. We shall be glad to receive, for publication, clinical notes bearing on electrical therapeutics.

THE OPENING OF THE SESSION IN DUBLIN.

The movement for altering the periods at which the winter session should begin and terminate has produced no result, it having been considered desirable to postpone the consideration of the matter for the present.

DIARRHŒAL CASES IN DUBLIN.

Several cases of severe and even fatal diarrhœa occurred last week, but none of such a character as to justify the term of "cholera". No second case has followed in any one dwelling; but the Public Health Committee have adopted very active precautions, especially the disinfection of the river and larger sewers with carbolic acid.

SOCIAL DIALECTICS.

There is in London a Society called the Dialectical, where ladies and gentlemen discuss together the most "delicate subjects". The prevention of venereal disease was one of the recent subjects, when, after various ladies had given their opinions, Mr. Acton advised that ladies generally should use their influence with prostitutes to keep themselves clean, and to inspect the men with whom they had connexion. A fitting pendant to this discussion was "a crowded meeting" on July 1st, when Dr. Chapman, Dr. Drysdale, Dr. Edmunds, Mr. Bradlaugh, and Lord Amberley (in the chair), and several ladies, are reported to have been present. The subject was over-population and public health. Lord Amberley avowed himself a convert to "the discovery of the illustrious Malthus". The only alternative to over-population and poverty seemed to him to be small families; and, after all, it turned out to be a medical question, how this could best be accomplished without injury to health. He wished much he could hear the proposals of the medical men in the room as to the best means of limiting numbers. In America, ladies were in the habit of keeping back their families; but the methods they employed seemed to him to be dangerous to health. Hence he should much like to hear a discussion as to whether some innocuous measure might not be discovered. It was remarkable that the subject should have first been taken up in America, where it was not so much required as it was here. Dr. Drysdale admitted, with Lord Amberley, that the question was mainly a medical one—viz., how could married persons limit the number of their offspring without injuring their health? He thought this question required much calm thought and discussion, and meanwhile would only state that in France, a few years ago, he had in one hotel met with two young couples, both married about five years, and both without children. On interrogation, the same answer was returned by both husbands—that they were not rich enough yet to afford children. This was one solution of the difficulty of over-population, if not the best. Mr. Nasmyth contended that the over-production of children was in a great measure dependent on fashion. It was the present fashion in England to have large families; whilst in France, as everybody knew, a great number of persons thought it absolutely wrong to have more than two or three. We believe that our profession will repudiate with indignation and disgust such functions as these gentlemen wish to assign to it.

THE OXFORD MEETING.

When this Journal is laid on the breakfast-table of our readers, many of them will doubtless be making arrangements for a few days' sojourn in the so-called city of spires. To such as now plan a visit thither for the first time, a few plain hints and directions as to whither to go, what to see, and how to see it, may be of use, and enable them more fully to enjoy what promises to be a successful meeting. We must here premise at once that space precludes us from any attempt at description; objects of interest can only be indicated by name. It will be important for all to remember that Oxford cannot now be seen in her academic dress. The streets will be destitute of the characteristic gownsman; the multifarious costumes, embracing all varieties, from that of the sage don down to that of the boating equipped undergraduate, having given way to the common-place dress of an everyday town. The Colleges are emphatically "down;" but, although of University life Oxford can give her guests but little idea, she is still prepared to greet them all with a hearty welcome.

Let us suppose that any one for whose aid these lines are written has reached Oxford by train. Let him at once proceed to the Reception Room at the Town Hall, within five minutes drive of the station. Let him, 1, enter his name and address; 2, inquire for letters; 3, consult the list of lodgings, which contains full particulars as to price and accommodation and choose for himself. But what accommodation have you for ladies? some one asks. Let such an one go to an Hotel. Lodgings, as a rule, in Oxford, are meant for bachelors, who have their wants supplied from College. The bed-rooms are cramped, and hold little but the bed, although, of course, there are exceptions.

The Hotels are all within easy reach of the place of meeting. For the information of our readers we name a few of them. *The Randolph:* The largest and most modern; situation excellent; close to the Martyrs' Memorial.—*The Clarendon*, Cornmarket Street: Good; plenty of accommodation.—*The Mitre*, High Street: An old established house, well known to all visitors to Oxford for the last fifty years.—*The Roebuck* and *King's Arms:* Both clean and quiet, the latter close to the Schools. Further local information can be obtained from Parker's *Railway Travellers' Walk Through Oxford*, a useful little book for the pocket.

Our visitor having established himself in lodgings or College-rooms, will read, if he turns to page 2 of the daily journal, "All the business and sectional meetings will be held within the precincts of the Schools." This block of buildings includes the Old Clarendon, so named from the fact of it having been built from the proceeds of the sale of copies of Lord Clarendon's *History of the Rebellion;* the Bodleian Library, which occupies the upper story of, and forms the large adjacent quadrangle; the Examination Rooms, to be used for sectional meetings, form the ground-floor; the Divinity School, once a Parliament house, in which will be held the second, third, fourth, fifth, and concluding meetings; the Convocation House; and the Sheldonian Theatre. For historical details, deeply interesting though they be, we have no space. Let our visitor examine well the Bodleian Library and Picture Gallery, the roof of the Divinity School, and the Theatre; and if then he do not object to a climb, the top of the Camera or Radcliffe Library will reward him with a view over Oxford not soon to be forgotten.

The New Museum.—Here the President will hold his *soirée* on Wednesday evening. Our visitors will note that this building is no mere museum to illustrate, but a school to teach physical sciences. It may be emphatically called the Home of Physical Science in Oxford. Physics, Physiology, Chemistry, Medicine, and Geology have all here their lecture-rooms for instruction, and their collections for study. Let the visitor inspect the laboratory, in the medical department, containing the pathological collection of the late Professor Schrœder van der Kolk, admirably catalogued and described by Dr. H. M. Tuckwell. The osteological and physiological preparations in the court, together with the extensive geological specimens below, will next claim his attention; and finally, a wander through the fine scientific library will well repay him for his trouble.

The Radcliffe Infirmary claims a visit. It is a fair specimen of hospital construction of the last century. The new accident-ward, built on the pavilion principle, the out-patients' hall, and the magnificent chapel presented by Mr. Combe, will also repay inspection.

The University Galleries opposite the Randolph Hotel contain an excellent library devoted to foreign literature, and galleries of painting and sculpture, in which may be seen a number of Turner's water-colours.

The Colleges.—But very few hints can be given.—In *Christ Church Hall*, in which the first general meeting will be held, the pictures of late members, and the mode of lighting by gas, claim attention. The Cathedral Library, Broad Walk, and river with its barges, should not be omitted.—*Magdalen College:* The cloisters, Addison's Walk, hall, and chapel, are well worthy of notice. Immediately opposite to this College, is the entrance to the Physic or Botanic Gardens, open every day until sunset.—*New College:* The magnificent chapel, quaint old kitchen, new oak roof to the hall, gardens skirted by the old city wall, all claim a visit.—*Exeter College* is especially remarkable for its chapel, a gem of modern Gothic, which will doubtless remind the visitor of La Sainte Chapelle in Paris. The stone carving is exceedingly beautiful.—*Jesus College:* The marble work at the east end of the chapel and the gables of the inner quadrangle deserve attention.—In *Worcester College Chapel*, the visitor will find a wonderful specimen of what pictorial decoration can do for bare walls. The gardens should be seen.—*Merton College:* The library is of great antiquity. Several chained books are still preserved. The chapel is undergoing repairs; but the exterior, especially the fine east window, should be seen from the quadrangle. This College can boast of many celebrated medical men. The great Harvey was for a short time Warden. John Chambre, physician to Henry VIII, was Fellow. His portrait is to be seen in the Common-room.—*St. John's*, *Trinity*, and *Wadham*, have all gardens, which will tempt many from the sterner duties of the sections, or refresh those weary with their attendance.—*All Souls*, *Queen's*, and *University Colleges*, possess libraries which will well repay a visit.

The County Lunatic Asylum at Littlemore can easily be visited, either by train (ten minutes) or on foot (three miles).

Blenheim, the seat of the Duke of Marlborough, at Woodstock, is easily visited by train or carriage.

Those interested in State Medicine will do well to visit the model lodging-houses, built on the site of a vile "rookery" in a most wretched part of the town.

With these few hints, meagre in the extreme, we must conclude, trusting that our visitors may find them outlines of subjects which they may fill in to their own lasting gratification.

MODERN ANÆSTHETICS.

Re-inhalation of Nitrous Oxide.

Sir,—In your impression of the 25th of April last, you kindly inserted a letter from me suggesting the breathing over and over again of the above gas, by separating from the expired portions the carbonic acid and aqueous vapour returned along with them from the lungs. I am now able to inform you that I have, in more than 100 cases, administered the gas upon this plan; with three exceptions, which were of so interesting a character that I shall again revert to them, the success has been quite equal to the method of breathing the gas only once. The amount of saving effected by the above arrangement is from two-thirds to three-fourths of the quantity of protoxide as ordinarily consumed. The agent I employ for removing the carbonic acid and aqueous vapour is quick lime recently and only partially slacked. The gas is admitted from a bag or receiver into a small India-rubber bag capable of holding about one gallon; from this it is inspired, but the expired gases pass over the lime and enter the bag again by another route. I will not say that the gas so respired is as pure after it has passed over the lime as it was before it entered the lungs; but it is sufficiently so to bring a second patient who may breathe it into a state of anæsthesia in nearly the same period of time as the first, and that is no longer than when the gas is breathed only once.

I may mention here that, through the kindness of Mr. Barth, I have on two occasions employed the protoxide of nitrogen as compressed by that gentleman into iron bottles, holding each two quarts by measure, and containing fifteen gallons of the gas compressed. It was readily transferred from the bottles to the small bag. I have found it quite equal in its effects to the gas when not compressed. In suggesting the plan of breathing the same gas over again, I did so under the belief that nitrous oxide gas is simply absorbed by the blood, and given off again without undergoing any change in composition, as stated to be the case by Dr. Hermann, whose experiments were recorded in your number of April 18th last. That such must be its action, or rather that its effects cannot be due to its decomposition, seems to me probable from the following considerations.—1. Protoxide of nitrogen is a remarkably stable compound, not decomposed by any of the ordinary deoxidising agents, and it therefore seems improbable that it should undergo any decomposition in the blood. 2. As this gas is composed by volume of two volumes of nitrogen with one volume of oxygen occupying the space of two volumes, its decomposition by the blood, if it took place, ought to be attended by no apparent loss of bulk when it is breathed backwards and forwards out of the same reservoir; the nitrogen returned from the lungs should be of equal volume to the protoxide inspired, which we know is not the case, for an ox bladder full when so breathed soon almost wholly disappears. 3. An analysis of expired nitrous oxide, kindly made for me by Dr. Frankland, showed that the gas was exhaled undecomposed. 4. The fact before mentioned, viz., that the gas already respired by one individual, if purified from carbonic acid and aqueous vapour, will produce anæsthesia almost as readily in a second individual. I think that, if Dr. Marcet will analyse the products of respiration after nitrous oxide which has been inhaled for some time, and no one is more capable of doing so, he will arrive at other conclusions respecting the physiological action of this agent than those expressed in his valuable letter of the 9th inst. If nitrous oxide have no further action upon the blood than that it is simply absorbed by it in the place of oxygen, it seems reasonable to suppose that any gas which can exert no injurious action on the blood, and will, at the same time, permit its carbonic acid and aqueous vapour to be given off, would answer as well as nitrous oxide. To test the truth of this proposition I experimented upon birds and mice with hydrogen and nitrogen, and upon myself with the latter. The results of these experiments are too long to give in detail, but they showed a decided difference in the action of the gas from that of nitrous oxide, perhaps from their conveying away too readily the carbonic acid from the blood, or from their being absorbed only in small quantities. Blood charged with nearly its own volume of nitrous oxide, although it may undergo no change in it, must be in a different condition from blood simply deprived of its oxygen. But in such able hands as those of Dr. Sanderson and Dr. John Murray, who have courteously permitted me to witness their experiments, this question can scarcely fail to receive a correct solution.

I will now very briefly revert to the three failures alluded to; they occurred at the Dental Hospital on the morning of the 2nd instant, and came in succession after four successful administrations. 1. A male, aged 22, after inhaling the gas for about thirty seconds, and apparently with difficulty, suddenly sprang forward, and, in a state of great excitement, seized me with both hands and shouted "No! no! I will not for all the gods that are in heaven and all the gods that are in hell." It was impossible to get released from his grasp for some seconds, when he said "Gentlemen, I am now rather more myself, but you must excuse my taking more of that; I have been mad drunk." Here was just that excitement we used to witness when laughing gas was formerly administered. 2. A policeman exhibited an almost precisely similar state of excitement; and 3, a nervous hysterical female was as unmanageable as the former. To this latter patient I gave the gas upon the ordinary plan, namely, of its only entering her lungs once, when she become unconscious without the slightest condition of excitement, showing evidently that its cause existed in the mode of administration I was pursuing. I can only account for this phenomenon of excitement on the supposition that it arose from the admixture of air, aqueous vapour, or carbonic acid. The first seems hardly probable, as in all cases I have witnessed when air has been breathed with the gas, its only effect has been to prolong the period before anæsthesia is arrived at, and to somewhat prolong the period of anæsthesia itself, as well as the recovery from it. Aqueous vapour I can hardly suppose would cause it, although it might; carbonic acid, I am inclined to believe—a belief strengthened from its effects upon myself when inhaled admixed with air—was the real cause; and that to the presence of this gas is due chiefly the excitement witnessed when nitrous oxide is breathed backwards and forwards from a small bag will, I think, be found to be the truth. In looking carefully to the cause of these failures, I discovered, upon examination, that the lime employed had become exhausted, or rather, I should say, completely saturated with water and carbonic acid. Apologising for so long a letter, but hoping it may contain one or two hints pointing to the action of an agent we at present are employing somewhat in the dark,

I am, etc., ALFRED COLEMAN.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XX.

IN his twentieth lecture, Professor Huxley concluded his account of the Insecta by treating of two points of great interest: 1, Agamogenesis; 2, peculiar forms of Parasitism.

Agamogenesis is of two kinds, one taking place in truly neuter insects, the other occurring in perfect females. The latter kind is Parthenogenesis, and takes place not uncommonly in the Silkworm-moth, the female of which will sometimes lay fruitful eggs without the coitus. It also occurs exceptionally in some other Lepidoptera; but in such moths as Psyche and Solenobia, true virgin reproduction appears to be the common and habitual one. In these genera, the females never acquire wings; but the larva having formed a spiral shell-like retreat passes into the pupa stage, but advances no further, the pupa reproducing without the help of any male. In Psyche helix, this process will go on for years, and only within the last few months have the males of this species been discovered in abundance; they are very small moths. Seeing how well reproduction takes place without them, their function is somewhat problematical.

In Bees (and probably in Wasps and Ants also), we have another mode of reproduction carried on by perfect females without the application of the male influence. These social insects have but one reproductive female in each community, the queen, and a certain number of males, the drones. The rest of the community are not true neuters, but imperfect females, stunted as to sexual development by lack of the stimulating food supplied to queens alone.

Copulation takes place in the air alone, and only once in the life of each queen. The drone selected from the others by royal favour pays for it dearly, as death is the necessary consequence of the act. The queen returns with her spermatheca full of the male secretion, which retains its efficacy for four or five years, and during the laying of 100,000 eggs.

It has been observed that, in cases where all the eggs give rise to drones, some defect exists in the spermatheca or wings of the queen; also that, when hybrids are produced, the drones are never hybrid. Numerous experiments and careful observations show that, in the formation of drones, we have a case of asexual reproduction; and that while, as each egg destined to produce a worker or a queen is laid, a minute portion of the contents of the spermatheca is applied to fecundate it, no such action takes place on laying the egg of a male—that, in fact, no drone ever had a father!

The other kind of Agamogenesis is exemplified in the Aphis, which, while supplied with warmth and abundant nutriment, will go on indefinitely producing viviparously other Aphides, all being true neuters, and destitute of spermatheca, collaterial gland, and true ovary. Yet the germs arise in a branched structure simulating an ovary, and the primary cells which give rise to the young simulate germinal vesicles. This process of internal budding is checked by cold, which occasions the production of true males and females, each of the latter being supplied with a spermotheca, collaterial gland, and true ovary. Copulation takes place, and results in oviparous reproduction.

Nicholas Wagner has discovered in certain Diptera a still more remarkable mode of Agamogenesis; a larva giving rise inside its body to secondary larvæ, which grow, obliterate its intestine, and burst its body. This process is repeated again and again; and here there is no structure simulating an ovary, but merely two small masses of formative tissue, whence the young arise.

The second, and only remaining, point of great interest to be noticed in insects, is the peculiar parasitism of certain species.

1. The Ichneumons lay their eggs inside the bodies of Caterpillars. The larvæ, as soon as hatched, turn to and devour their involuntary host, but carefully abstain from the destruction of his organs, only eating the *corpus adiposum* stored up amongst them. The result is, that the Caterpillar, having become a chrysalis, dies of inanition, and, instead of a Lepidopterous insect issuing from it (the con-

tained larva having at the same time undergone its transformation), an Ichneumon Fly appears instead.

2. Stylops, a member of the very aberrant group, Strepsiptera, is parasitic in Bees; exceedingly minute, the larvæ of both sexes creep about the hairs of a Bee's body. The male assumes the pupa stage inside the body of the Bee, and issues thence as an exceedingly minute very active insect, with a single pair of metathoracic wings. The female, on the other hand, becomes a shapeless bag destitute of all appendages, but pushes out from between two segments of the Bee's body her rudimentary head, in which is situated the generative aperture. The active male flies about seeking some Bee, from the body of which such a female head protrudes, and, having found it, impregnates it. The larvæ afterwards creep out of the same female aperture, and betake themselves once more to the hairs of the Bee's body.

3. Sphex, a wasp, may be called semi-parasitic from the way in which it nourishes its young. These have to be supplied once for all with fresh animal food—prey which can neither escape nor putrify. The parent Sphex seizes insects of various kinds, and stings them in the thoracic ganglia. The effect of this is to produce complete paralysis as to motion and, it is to be hoped, as to sensation also. Having secured a sufficient quantity, she closes the door of her burrow upon both these dead-alive creatures and her young. These latter, when hatched, proceed to devour at leisure their living but unresisting victims. This phenomenon would have supplied Dante with another conception for his Inferno—wretches utterly incapable of the slightest motion, but keenly sensitive to pain and suffering, being slowly devoured alive by some grim demon.

THE TENTH REPORT OF THE MEDICAL OFFICER OF THE PRIVY COUNCIL.

SECOND NOTICE.

The Dampness of Soil a Cause of Phthisis.—In the last annual report of the medical officer of the Privy Council it was evident that, in some of the towns which had been improved, the mortality from phthisis had notably diminished. And when detailed examination was made of the cases which gave that indication, in contrast with the different class where phthisis has not been lessened in amount, it appeared that the diminution or non-diminution of phthisis depended on whether the sanitary improvements of the place had, or had not, included any considerable drying of the soil. In cases where this condition had been fulfilled, the reduction of phthisis occurred both too uniformly, and also in too great amount, to be regarded as of accidental coincidence. In a table then given, the reduction on previous phthisis-mortality, for the first fifteen towns spoken of, was shown to be such as in the adjoining table.

The death-rates by phthisis in the fifteen under-mentioned towns had, after improved land-drainage, fallen *per centum* as follows.

Salisbury	49	Cheltenham	26
Ely	47	Bristol	22
Rugby	43	Dover	20
Banbury	41	Warwick	19
Worthing	36	Croydon	17
Leicester	32	Cardiff	17
Macclesfield	31	Merthyr	11
Newport	32		

And the fact that in some of the cases the diminished fatality of phthisis was by far the largest amendment, if not the only one, which had taken place in the local health, became extremely interesting and significant, when the circumstance was remembered that works of sewerage, by which the drying of soil is effected, must always of necessity precede, and do indeed sometimes precede by years, the accomplishment of other objects (house drainage, abolition of cesspools, and so forth) on which the cessation of various other diseases is dependent. Thus, as regards the two largest populations which were reported on—those of Bristol and Leicester—no doubt the comparative smallness of effect hitherto produced on the general and diarrhœal death-rates of those towns might (so far as it was not fallacious) be referred to the shortness of time for which finished constructions had been at work for the detailed dispollution of houses and their dependencies; but a reduction already of a sixth in the phthisis-mortality of Bristol, and a reduction already of a fourth in the phthisis-mortality of Leicester, were appparently connected with the fact that in both towns main sewerage on a large scale, with more or less drying of soil, had existed, in comparison, for many years. And Rugby, which, long as it had been at work, had not yet succeeded in getting rid of endemic diarrhœa and typhoid fever, showed at least this result of its main drainage works, that its phthisis-mortality had fallen 43 per cent.

In order to investigate more fully the œtiological relation suggested by the above facts, Mr. Simon commissioned Dr. Buchanan to continue these researches on an elaborate plan. His report is now presented *in extenso*, and is a most able and careful document. The following is his summary of conclusions.

Within the counties of Surrey, Kent, and Sussex, which were selected for reasons of convenience as suitable types, there is, broadly speaking, less phthisis among populations living on pervious soils than on impervious soils; less on high-lying pervious soils than on low-lying pervious soils; less on sloping impervious soils than on flat impervious soils. The connection between soil and phthisis has been established in this inquiry by the existence of general agreement in phthisis-mortality between districts that have common geological and topographical features, of a nature to affect the water-holding quality of the soil; of general disagreement between districts that are differently thus circumstanced; and of pretty regular concomitancy in the fluctuation of the two conditions, from much phthisis with much wetness of soil to little phthisis with little wetness of soil. The connection between wet soil and phthisis came out last year, as above described, in another way—by the observation that phthisis had been greatly reduced in towns where the water of the soil had been artificially removed, and that it had not been reduced in other towns where the soil had not been dried. The whole of the foregoing conclusions combine into one—which may now be affirmed generally, and not only of particular districts—that *wetness of soil is a cause of phthisis to the population living upon it.* No other circumstance can be detected, after careful consideration of the materials accumulated during this year, that coincides on any large scale with the greater or less prevalence of phthisis, except the one condition of soil.

Mr. Simon points out the eminently practical character of the conclusions already obtained in respect to phthisis:—"Phthisis, so far as it depends on unwholesome circumstances of in-door industry, has, since my former reports, been made preventable under the law; and phthisis, so far as it depends on wetness of soil, may easily, in great part, be made similarly preventable. Distinction must, of course, here be drawn between populous and non-populous places. An undrained state of soil, in any place where population is aggregated, answers to the legal intention of the word 'nuisance'; and I apprehend that, even in the present state of the law, the local sewer-authority is bound to provide that such a state shall not continue through want of proper constructions for the drainage. For agricultural lands, no doubt, the case is different. It may not be practicable to require that such lands, though damp enough to cause phthisis to the comparatively few and scattered persons who reside on them, shall be artificially drained by their owners; and the interests of agriculture in this respect are not always identical with those of human salubrity. But at least the law might unequivocally condemn, so far as detrimental to health, all damming of natural drainage; and, for river-conservancies, it would be a function scarcely if at all less important than that of preventing the pollution of rivers, that they should also, as far as possible, prevent or remedy all such artificial and natural obstructions of waterflow as keep tracts of inhabited land sodden with stagnant wetness."

MORTALITY BY ENTHETIC DISEASE.—In the ten years 1857-66 no less than 12,786 lives have been destroyed in England and Wales by enthetic disease (syphilis) alone. The number of deaths registered in each of the ten years was 957, 1,006, 1,089, 1,067, 1,177, 1,245, 1,386, 1,550, 1,647, and 1,662. Allowing for increase of population the results show that the mortality by this disease is steadily increasing; thus, to 1,000,000 persons living in each of the years 1857-66 the proportional number of deaths was 50, 52, 56, 54, 59, 62, 68, 75, 79, and 79 respectively. The results published by the Registrar-General show the lamentable amount of suffering and death which this disease entails upon infant life. Out of 13,914 deaths from enthetic disease registered in England and Wales in the twelve years 1854,65, no less than 9,512, or 69 per cent., were those of infants under one year of age; in 1854, out of 964 deaths, 577, or 60 per cent., were those of infants under one year of age; and 1865, out of 1,647 deaths, 1,155, or 70 per cent., were those of infants who had not completed their first year of life. In London, in the twelve years 1854-65, 3,370 deaths were registered from enthetic disease; in 1854 the deaths numbered 206; in 1865 they were 392. Of the 3,370 deaths, the large number of 2,587, or 77 per cent., were those of infants under one year of age. In 1854 the proportion of deaths of infants to total deaths was 43 per cent., in 1865 it was 76 per cent. The deaths registered from enthetic disease represent only a small proportion of the cases, and the syphiline sets up actions which affect various organs, and gives rise to diseases referred to other causes of death. That so many infants should be infected from birth and die of this pernicious disease is greatly to be deplored.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-sixth Annual Meeting of the British Medical Association vill be held at Oxford, on Tuesday, Wednesday, Thursday, and riday, the 4th, 5th, 6th, and 7th days of August next.

President—WM. STOKES, M.D., D.C.L.Oxon., F.R.S., Regius Professor of Physic in the University of Dublin.

President-Elect— H. W. ACLAND, M.D. Oxon. & Dublin, LL.D., F.R.S., Regius Professor of Physic in the University of Oxford.

The Scientific Business will be conducted as follows.

1.—AT GENERAL MEETINGS:

The President's Address.

Address in Medicine, by Dr. GULL.

Address in Physiology, by Professor ROLLESTON, F.R.S.

Paper on the Relations of Food to Force, by the Rev. Professor HAUGHTON, F.R.S.

Report by Professor BENNETT on Mercury; and Reports of Committees.

2.—AT MEETINGS OF SECTIONS:

Section A. MEDICINE.—*President*, Sir Wm. Jenner, Bart., M.D., .R.S. *Secretaries*, E. Long Fox, M.A., M.D.; William Roberts, I.D.

Section B. PHYSIOLOGY.—*President*, Professor Rolleston, M.D., .R.S. *Secretaries*, W. S. Church, M.A., M.B.; Professor Beale, I.B., F.R.S.

Section C. SURGERY.—*President*, James Paget, F.R.S. *Secretaries*, T. P. Teale, M.A., M.B.,; W. Stokes, jun., M.D.

Section D. MIDWIFERY.—*President*, Sir C. Locock, Bart., M.D., .R.S. *Secretaries*, James G. Wilson, M.D.; J. G. Swayne, M.D.

Section E. PUBLIC MEDICINE. — *President*, J. Simon, F.R.S. *ecretaries*, J. E. Morgan, M.A., M.D.; T. J. Dyke, F.R.C.S.

Papers shall not exceed *twenty* minutes. All subsequent speakers iot to exceed *ten* minutes.

For information respecting the order of business, application may be iade to either of the Secretaries of each Section respectively.

TUESDAY, *August 4th*, 1868.

1 P.M.—MEETING OF COMMITTEE OF COUNCIL—Ashmolean, 3road Street.

3 P.M.—MEETING OF GENERAL COUNCIL—Convocation House.

8 P.M.—FIRST GENERAL MEETING—Hall of Christ Church.—The etiring President, Professor STOKES, will resign his office.—The new 'resident, Professor ACLAND, will deliver his Inaugural Address.—The Report of the Council will be read and discussed.—Election of ieneral Secretary.—Election of Auditors.—Report of Medical Beneolent Fund.

WEDNESDAY, *August 5th*.

8 A.M.—BREAKFAST of the Association at the Corn Exchange, 'ickets (price 2s. 6d.) to be had at the Reception Room up to 10 P.M. n Tuesday night.

9.30 A.M.—MEETING OF NEW COUNCIL—Convocation House.

10.30 A.M.—HONORARY DEGREES will be conferred in the Shelonian Theatre.

11 A.M.—SECOND GENERAL MEETING—Divinity School. — The ppointment of Place of Meeting in 1869, and of the President-elect, vill be made.—The Report of Joint Committees of British Medical nd Social Science Associations on Public Medicine.

12 noon.—Address in Physiology, by Professor ROLLESTON, F.R.S.

2 P.M.—THIRD GENERAL MEETING.—Divinity School—The Rev. 'rofessor HAUGHTON will read a paper on Sources of Vital and Iechanical Force derived from Food, and its influence on Medical 'ractice.

3 to 6 P.M.—MEETINGS OF SECTIONS—The Schools. — Sir W. ENNER will take the chair in Section A at 3.—Professor ROLLESTON ill take the chair in Section B at 3. 30.—Mr. PAGET will take the iair in Section C at 4.

8.30. P.M.—THE PRESIDENT'S SOIRÉE at the University Museum.

THURSDAY, *August 6th*.

9.30 A.M.—MEETING OF COMMITTEE on Registration of Disease.

10 A.M.—FOURTH GENERAL MEETING—Divinity School.—Prossor HUGHES BENNETT, M.D., will read the Report of the Committe on the Action of Mercury as a Cholagogue.

11.30 A.M.—MEETINGS OF SECTIONS—the Schools.—Mr. SIMON will take the Chair in Section E.—Sections A and C.

2 P.M.—FIFTH GENERAL MEETING—Divinity School.—Address in Medicine by W. W. GULL, M.D.

3 P.M.—MEETINGS OF SECTIONS—the Schools. —Sir Charles LOCOCK will take the Chair in Section D.—Sections A and B.

7 P.M.—DINNER of the Association in the Hall of Christ Church. Tickets (price £1:1:0) to be had at the Reception Room only.

FRIDAY, *August 7th*.

10 A.M.—MEETINGS OF SECTIONS—the Schools.

4 P.M.—CONCLUDING GENERAL MEETING—Divinity School.

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary, at their earliest convenience. All papers should be in the hands either of the General Secretary, or of the President, on or before the 1st of August; and notice should be immediately given to one of the Secretaries of the Section to which the paper belongs.

A room in the Town Hall will be open as a RECEPTION-ROOM on Monday, August 3rd, at 10 A.M., and on the following days at 8 A.M., for the issue of tickets to members, and for supplying lists and prices of lodgings, and other information. Members and others who require information with respect to the Meeting, are requested to make application in this room.

The General Post Office is under the Town Hall; the Telegraph Offices are at No. 117 in the High Street, 65 Cornmarket, and North Western Station.

The *Journal*, announcing the arrangements for each day, will be laid on the table of the Reception-room on Tuesday and the following mornings at 8 A.M. for distribution. Lists of members present will be issued as soon as possible after the commencement of the meeting, and will be placed in the same room for distribution. The member's ticket will contain a map of Oxford.

The Library, Writing Rooms, and News Rooms of the Oxford University Debating Society, in Frewen Court, Corn Market, will be open to all members of the Association during their stay.

Objects of interest in Oxford and the neighbourhood:—the Colleges; Bodleian Library; Radcliffe Library; Museum; University Press; University Galleries; Physic Garden; Christ Church Meadows; Observatory; Infirmary; Model Lodging Houses, St. Thomas'; Mr. Maclaren's Gymnasium; County Lunatic Asylum; Blenheim; Nuneham.

ALL GENTLEMEN INTENDING TO VISIT OXFORD DURING THE MEETING, ARE REQUESTED TO SEND THEIR NAMES, WITHOUT DELAY, TO E. CHAPMAN, ESQ., M.A., FREWEN HALL, OXFORD.

ANNUAL MUSEUM.—A room will be devoted in the University Museum to the Exhibition of Drawings, Casts, Instruments, and other objects of interest. This will be open to members of the Association during Wednesday evening and Thursday. Objects for the Museum will be received up to 4 o'clock on Wednesday, and should be addressed—"For the Annual Museum, British Medical Association, University Museum, Oxford." Objects arriving after the above named hour cannot be admitted.

NOTICES.—The following notices of motion have been given.

The SECRETARY: To alter Law XIV by adding, "provided he shall have the votes of three-fourths of those present at such meeting."

Dr. ALEXANDER HENRY: "That the following be substituted for Law III; viz., The Association shall consist of Ordinary Members, being duly qualified members of the Medical Profession, and of Honorary Members having the qualifications described in Law XVIII." "That the following be substituted for Law XVIII; viz., Honorary Members may be elected by the Association at an Annual Meeting, on the recommendation of the Council. The following classes of persons shall be eligible: *a.* Members of the Medical Profession, of scientific eminence, residing in the United Kingdom, or in the Colonies or Foreign Countries; *b.* Gentlemen resident in the United Kingdom, or in the Colonies or in Foreign Countries, not belonging to the Medical Profession, but distinguished in Sanitary or in Physical Science; *c.* Gentlemen who may have rendered distinguished service to the Association. Honorary Members shall not be entitled to any further privilege than that of attendance at the Annual Meetings, and to the receipt by any such Member of copies of any memoir or communication of his printed by the Association."

Dr. DAVEY: To alter Law VIII, by substituting the word "twenty" for "ten" members, to be elected members of the Committee of Council.

Dr. W. ROBERTS: That a Committee be appointed to consider and report on the present method of electing the General Council.

The Rev. Dr. BELL: "That it is desirable to secure a Local Treasurer for the District of each Branch Association (the Secretary or Treasurer of the Branch might be the best suited if it could be so arranged), to whom the Subscriptions of Members might be paid; and that the gross amounts received should be forwarded to the General Treasurer, and not to the General Secretary, as is now done; and that the list of paid ubscriptions might be published in the JOURNAL, instead of separate Seceipts being given."

PAPERS, *etc.*, have been promised from:

M. A. ADAMS, F.R.C.S. (Maidstone): A New Instrument for investigating the Field of Vision.

T. CLIFFORD ALLBUTT, M.D. (Leeds): The so-called Loss of Coordinating Power in Locomotor Ataxy.

T. CLIFFORD ALLBUTT, M.D.: Dermal Use of Opium.

J. ALTHAUS, M.D. (London): Bilateral Anæsthesia of the Fifth Cerebral Nerve.

F. E. ANSTIE, M.D. (London): Visceral Neuralgia.

E. BALLARD, M.D. (London): A National System of Registration of Sickness, apart from the Registration of Deaths.

R. BARNES, M.D. (London): The Diagnosis of Early Pregnancy.

LIONEL S. BEALE, M.B., F.R.S. (London): The Arrangement and Action of the Nerves distributed to the Capillary Vessels of Man and Mammalia.

J. BIRKETT, F.R.C.S. (London): The Mortality arising from Abdominal Hernia; with Suggestions for its Diminution.

W. T. BLACK, Surgeon-Major Royal Army (Aberdeen): The Sanitary Condition of Hong Kong during the Epidemic in 1865.

T. BRYANT, F.R.C.S. (London): Impacted Fracture of the Neck of the Thigh-bone, more particularly in reference to its Diagnosis; with Cases.

T. BRYANT, F.R.C.S.: Effect of Torsion on Blood-Vessels.

T. KING CHAMBERS, M.D. (London): How shall we make our Daily Experience advance Science?

J. CHIENE, M.D. (Edinburgh): Complete Obliteration of the Cœliac Axis and Mesenteric Vessels, consequent on Disease of the Abdominal Aorta.

J. CHIENE, M.D.: On the Extraperitoneal System of Arteries.

J. T. CLOVER, F.R.C.S. (London): The Administration of Nitrous Oxide as an Anæsthetic.

M. H. COLLIS, M.B. (Dublin): Contributions to Plastic Surgery.

M. H. COLLIS, M.B.: Operations for Tumours in the Nasal Cavities.

WALTER J. COULSON, F.R.C.S. (London): Complications occurring in Lithotrity.

F. R. CRUISE, M.D. (Dublin): The Endoscope; with Illustrations.

W. H. DICKINSON, M.D. (London): Microscopic Specimens illustrating the several Renal Diseases associated with Albuminuria.

H. DOBELL, M.D. (London): On the Mode of Admission to Hospitals.

C. R. DRYSDALE, M.D. (London), and R. W. DUNN, M.R.C.S. (London): A few Syphilitic Cases treated without Mercury.

C. R. DRYSDALE, M.D. (London): The Prevention of Venereal Diseases.

C. R. DRYSDALE, M.D.: One State Degree, and Competitive Examination for all Public Appointments.

P. EADE, M.D. (Norwich): The Etiology of Phthisis.

B. W. FOSTER, M.D. (Birmingham): The Use of Ether and Etherised Cod-liver Oil in Phthisis.

E. LONG FOX, M.D. (Clifton): The Relation of the Secretion of Phosphoric Acid to Temperature in Certain Conditions of the Nervous System.

TILBURY FOX, M.D. (London): Contagious Impetigo.

W. T. GAIRDNER, M.D. (Glasgow): On the Limits of Alcoholic Stimulation in Acute Disease.

SAMPSON GAMGEE, F.R.S.Ed. (Birmingham): Rest, Position, and Pressure; with Special Reference to the Treatment of Fractures of the Limbs.

R. GREENHALGH, M.D. (London): Missed Labour.

W. HARDWICKE, M.D. (London): Public Mortuaries in Large Towns.

ERNEST HART, Esq. (London): Preparations Illustrative of the Minute Structure of the Iris and Ciliary Muscle.

ERNEST HART, Esq.: The Ophthalmoscopic Signs of Constitutional Diseases.

T. HAYDEN, F.K.Q.C.P. (Dublin): The Differential Diagnosis and Significance of certain Endocardial Murmurs.

T. P. HESLOP, M.D. (Birmingham): The System of Admission prevailing in Hospitals.

GRAILY HEWITT, M.D. (London): The Treatment of Flexions and Versions of the Uterus, with exhibition of apparatus employed.

J. BRAXTON HICKS, M.D., F.R.S. (London): Transfusion of Blood in Hæmorrhage; with a Description of a new Mode of Management.

J. HIGGINBOTTOM, F.R.C.S., F.R.S. (Nottingham): Ipecacuanha in Emetic Doses, as a Stimulant, Restorative, Eliminative, and Adjuvant, in various cases of Disorder and Disease.

BERKELEY HILL, F.R.C.S. (London): The Prevention of Venereal Disease.

G. M. HUMPHRY, M.D., F.R.S. (Cambridge): Torsion of Arteries.

G. M. HUMPHRY, M.D., F.R.S.: On some Forms of Growth.

J. I. IKIN, F.R.C.S. (Leeds): The Comparative Results of the Inspection of Recruits for the Public Service by Military and Civil Surgeons; and the Regulations drawn up for the Guidance of Medical Men.

VINCENT JACKSON, M.R.C.S. (Wolverhampton): Case of Removal of the Arm at the Shoulder-Joint, with Excision of the Scapula.

G. JOHNSON, M.D. (London): Blood-letting, Heat and Cold, and Irritants, in the Treatment of Disease.

G. JOHNSON, M.D.: Microscopic Specimens and Drawings of Hypertrophied Arteries in Chronic Bright's Disease.

FURNEAUX JORDAN, F.R.C.S. (Birmingham): The Treatment of Acute Orchitis.

H. KENNEDY, A.B., M.B. (Dublin): Reasons for the Abandonment of Venesection in the Treatment of Disease.

G. H. KIDD, M.D. (Dublin): Intrauterine Polypi.

E. LANKESTER, M.D., F.R.S. (London): Prison and Workhouse Dietary.

T. LAYCOCK, M.D., F.R.S.Ed. (Edinburgh): Suggestions for Improving the present unsatisfactory state of the Law in regard to persons labouring under Mental Disorders and Defects.

HENRY LEE, F.R.C.S. (London): Those Secretions which are, and those which are not, the means of communicating Constitutional Syphilis.

P. C. LITTLE, F.R.C.S.I. (Dublin): Concussion of the Brain and Spine; with Cases.

E. LUND, F.R.C.S. (Manchester): The Air of Hospitals, in reference chiefly to the presence of Microscopic Germs.

R. McDONNELL, A.B., M.D. (Dublin): The respective Claims of Bell and Magendie to the Discovery of the Functions of the Roots of the Spinal Nerves.

R. McDONNELL, A.B., M.D.: Observations on Traumatic Fever.

E. D. MAPOTHER, M.D. (Dublin): The Appointment of District Physicians, to whom all Public Medical Functions should be entrusted.

R. MARTIN, M.D. (Warrington): Intemperance as a Factor in the Production of Epidemic Disease.

G. MAY, jun., M.B., F.R.C.S. (Reading): Aneurism of the Innominate Artery, treated by Acupressure of the Carotid and Brachial.

W. MOORE, M.D. (Dublin): Non-Symmetrical Dropsies.

J. E. MORGAN, M.A., M.D. (Manchester): Town-life among the Poorest; the Air they breathe and the Houses they inhabit.

J. MULVANY, M.D. (Lake Erie): Coal Oil as a Medicinal Agent.

C. A. NEWNHAM, M.R.C.S. (Wolverhampton): The Remuneration for Medical Attendance on Sick Clubs, etc.

T. NUNNELEY, F.R.C.S. (Leeds): Cases illustrative of the Surgery of the Ankle-joint.

J. W. OGLE, M.A., M.D. (London): Paraplegia, independent of Disease primarily affecting the Spinal Cord; including Cases of Cerebral Origin.

J. W. OGLE, M.A., M.D.: Syphilitic Affections of the Nervous System.

W. OGLE, M.A., M.D. (Derby): The Professional Aspect of Club Practice.

FRANCIS OGSTON, M.D. (Aberdeen): Punctiform Ecchymoses in the Interior of the Body as a Proof of Death by Suffocation.

F. OPPERT, M.D. (London): Medical Education in England and abroad compared.

J. PAGET, F.R.C.S., F.R.S. (London): Stammering with other Organs than those of Speech.

J. POPHAM, M.A. M.B. (Cork): The Social Evil; how can it be met?

A. RANSOME, M.B., A.M. (Bowden): Epidemics studied by Means of Statistics of Disease.

W. RENDLE, M.R.C.S. (London): The Residential State of the Poorer Classes of Inhabitants of the Kingdom, with Reference to Health and the Complementary Conditions.

J. RUSSELL REYNOLDS, M.D. (London): Some Affections of the Vaso-motor System of Nerves.

W. ROBERTS, M.D. (Manchester): Exploration and Tapping.

HYDE SALTER, M.D., F.R.S. (London): The Diagnosis of the Different Varieties of Dyspnœa.

A. E. SANSOM, M.D. (London): Anæsthesia, and the Action o Anæsthetics.

J. MARION SIMS, M.D. (Paris): The Speculum.

J. MARION SIMS, M.D.: Illustrations of the Value of the Microscope in the Treatment of the Sterile Condition.

PROTHEROE SMITH, M.D. (London): Bromide and Bibromide of Mercury as Therapeutic Agents.

PROTHEROE SMITH, M.D. (London): A Successful Method of Treating Flections of the Uterus by Means of an Elastic Pessary.

T. SMITH, F.R.C.S. (London): The Treatment of Stone in Boys.

F. SYMONDS, F.R.C.S. (Oxford): A Case of Gangrene of the Leg, probably dependent on Embolism of the Femoral Artery.

G. SOUTHAM, F.R.C.S. (Manchester): The Results of the Operations for Lithotomy performed at the Manchester Royal Infirmary.

J. K. SPENDER, M.B. (Bath): Some Points in the Pathology and Treatment of Capillary Bronchitis.

H. STEAR, M.R.C.S. (Saffron Walden): The Propriety of the Appointment of a Committee to draw up a Recommendatory Tariff of Medical Fees.

W. STOKES, jun., M.D. (Dublin): Periosteal Preservation in Operative Surgery.

W. STRANGE, M.D. (Worcester): The Pathology and Treatment of Disorders of the Nervous System accompanied by Excess of Motility.

W. P. SWAIN, F.R.C.S. (Devonport): A New Plan of Treating Talipes Varus, in which the Rotation of the Foot anterior to the Astragalo-Scaphoidal Axis is very great.

J. G. SWAYNE, M.D. (Clifton): The Treatment of Puerperal Convulsions.

H. SWETE, M.R.C.S. (Weston-super-Mare): The Importance of obtaining Correct Comparative Observations in Estimating the Influence of Light in Health and Disease; illustrated by the Actinograph.

C. TAYLOR, M.D. (Nottingham): Further Observations on an Improved Method of Extracting in Cases of Cataract.

T. P. TEALE, M.B., F.R.C.S. (Leeds): Atrophy induced by Cica-rix, and its Surgical Value.

H. M. TUCKWELL, M.D. (Oxford): Remarks on Villous Tumour of he Rectum, and the Resemblance that it may bear in its Symptoms to Chronic Dysentery: illustrated by Two Cases.

J. TUFNELL, F.R.C.S.I. (Dublin): The Cure of Internal Aneurism.

SPENCER WELLS, F.R.C.S. (London): Improved Methods of Exposing Vesico-Vaginal Fistula.

C. G. WHEELHOUSE, F.R.C.S. (Leeds): A Case of Distended Pericardium, threatening Immediate Death, relieved by Paracentesis.

E. WILSON, F.R.C.S., F.R.S. (London): The Influence of Shock n the Production of Cutaneous Disease.

A. WILTSHIRE, M.D. (London), and W. T. WATSON, M.D. (Lon-on): A Case of Ovariotomy during Acute Peritonitis: Recovery.

F. WINSLOW, M.D., D.C.L. (London): The Incipient Symptoms f Softening of the Brain.

E. WOAKES, M.D. (Luton): Ergot of Rye in the Treatment of Neuralgia.

J. R. WOLFE, M.D. (Aberdeen): The Removal of Cancer by Caustic Arrows and Carbolic Acid.

J. YEARSLEY, M.D. (London): Armamentarium Chirurgicum of an Aural Surgeon.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary.*

13, Newhall Street, Birmingham, July 1868.

CORRESPONDENCE.

THE LONDON COLLEGE OF PHYSICIANS.

SIR,—I am getting old in the profession, but still I feel a deep interest in it, and am truly glad to find that "at a meeting of the committee of the ollege of Physicians of London, on Tuesday last, the proposal to bestow ithout examination, the Licence of the College, was withdrawn." No ne can be more anxious to raise the status of the general practitioner han I am, and I think the step lately taken by the College of Physi-ans in granting, after examination, licenses to practice medicine, is a ep in the right direction, instead of obliging students to resort to a ading company like the apothecaries. At the same time, who would ppreciate this, if you make licentiates of general practitioners, without xamination, however otherwise eligible?

I recollect full well, in 1847, when I happened to be President of our ssociation, accompanying the late Sir Charles Hastings and others, as deputation to the College, on the subject of the Medical Reform Bill. r. Paris, the then president was in the chair, and amongst other subjects scussed, was the advisability of physicians becoming members of their ollege. My reply to this was, that, as a Graduate of an ancient Univer-ty, I should not consider it a compliment to become a member, as long they admitted general practitioners of certain years' standing to the membership without examination. This was done for a time, but, I need scarcely say, has long since been discontinued.

I merely mention this, as a parallel case to the one under discussion. May I be allowed to say that I always thought the College of Physicians of Edinburgh made a mistake in their "year of grace," as they called it; they flooded the country with a spurious species of physicians.

I am, etc., JAMES HEYGATE.

Derby, July 1868.

REPRESENTATION OF THE PROFESSION IN THE MEDICAL COUNCIL.

SIR,—There are now two distinct plans before the profession, for securing representation of its interests in the Medical Council. They have been described as the plan of *direct*, and the plan of *indirect*, representation. The former has found its best and truest advocate in the British Medical Association; the latter has been put forward by Dr. Prosser James, and is attracting some attention. As it is extremely desirable to secure unanimity of opinion, I will briefly state some of the many objections which may be urged against the indirect method, which consists in the representative of each corporation being chosen by those who hold its diplomas. Take the College of Surgeons of England. There are about 15,000 Members and 1,400 Fellows. Is it fair that the corporation should be saddled with the heavy expense of collecting the votes of a constituency, whose accessible portion cannot be reckoned at less than 12,000? And is the voice of English surgeons to be drowned, to give the Profession representation? Would the Fellows consent to have the governing power taken out of their hands, just as they are beginning to feel that it can be effectually exercised? Or take the Apothecaries' Hall. Its licentiates are not members of a society which carries on a wholesale and retail trade in drugs, nor do they wish to be. Therefore the voice of licentiates cannot, either in law or reason, be made as the voice of apothecaries. Or take the College of Physicians. Five hundred Licentiates might not be able to override more than eight hundred Fellows and Members, but Licentiates multiply apace, and even, in their present numbers, might seriously affect the result of an election.

But the indirect scheme contains the seeds of its own decay. If, as appears very probable, one Examining Board be constituted for the admission of members into the profession, the Members and Licentiates of Colleges and Halls would gradually become extinct, and the great bulk of the profession—the new order of General Licentiates—would be found in a few years in the outer darkness of professional unrepresentation. To remedy this, the direct plan would be adopted. Then why not adopt it at once? By all means popularise, as far as possible, the franchise for the election of representatives of the corporation. For example, let the Medical Graduates of the University of London, and not the Senate, elect the University representative. Let the Fellows of the College of Surgeons elect the representative of that corporation, and let the Fellows of the College of Physicians (the term and distinction of "Member" being abolished) elect the Member for that College. But, let the College of *Surgeons* and the College of *Physicians* remain the College of *Surgeons* and the College of *Physicians* still.

If these objections be sound, it remains only to determine what proportion of direct representation the profession should enjoy. Prudently and wisely, the Association limited its demand to *eight* representatives. But, as the Medical Council has declined to lend its assistance to obtain even so very moderate a number, it may be as well to advance the claim of the profession to *twelve* representatives. Twelve appears to me a just and equitable number. With this addition to the Council, the balance of power would be held by the Crown nominees, who, as the representatives of the public, might reasonably decide in case of any direct antagonism between the representatives of the profession and the representatives of the corporations.

In conclusion, Sir, I would express an earnest hope that, before next year, means will be adopted by the Association to collect the opinion of the profession at large on this vital subject, that it may clearly be seen that that opinion was truly interpreted by the deputation which waited on the Medical Council at its recent sitting. Entrusted with petitions, with many thousand signatures, the Association within a year might bring the cause to a triumphant issue, with or without the cooperation of the Medical Council. I am, etc.,

Finsbury Square, July 1868. WALTER RIVINGTON.

ON THE MODE OF ELECTING THE GENERAL COUNCIL OF THE ASSOCIATION.

SIR,—Will you kindly find room for the following short statement of facts in reference to the present mode of electing the General Council? I brought the subject before the Lancashire and Cheshire Branch at its last annual meeting; and the following resolution was unanimously agreed to. "That, inasmuch as, under the present method of electing the General Council, a large number of members—amounting to about one-third—are unrepresented on the Council, this Branch is of opinion that the attention of the Committee of Council should be directed to the subject, with a view of considering the desirability of nominating a certain number of members on the Council, independently of the Branches." The facts which I laid before the meeting, and which induced it to assent to the above resolution, are briefly these.

1. By Law VIII, the General Council is elected exclusively by the Branches; each Branch contributing one representative for every twenty members on its roll.

2. According to the statements published in the JOURNAL last year, there were more than one-third of the members (1140 out of 3100) who did not belong to any Branch, and were, therefore, unrepresented in the General Council.

3. We have fifty-five members in Scotland, but no representative from Scotland sits on our Council. Only one member from Ireland (where we have 386 members)—namely, Dr. Stokes, ex-President—has a seat on the Council. In London, a large number of the members do not belong to the Metropolitan Counties Branch; and of the large number of physicians and surgeons connected with the great hospitals and schools only some half a dozen have seats on the Council, although most of them are on the roll of the Association. Altogether, in England and Wales alone, there are no less than 570 members who are unconnected with any Branch, and consequently unrepresented on the Council.

4. The members thus excluded—partly residing in districts where there are no Branches and partly in districts where Branches have been established—embrace some of the most conspicuous names in the profession, and (which is singular) some of the most active and prominent members of the Association. I find, on looking over the programme of the coming meeting at Oxford, that the eminent men who are appointed to deliver the addresses and to be presidents of sections—namely, Gull, Rolleston, Bennett, Haughton, Jenner, Paget, Locock, and Simon—are every one of them without a seat on the Council. It is not too much to say that, with the present mode of election, the leading men of the profession are excluded almost in a body from the Council, although nearly all of them are on our roll of members.

5. The exclusion of such names from the parliament of the Association cannot be otherwise than injurious to the weight and authority of its deliberations, and detrimental to the progress of the Society. It is a matter that demands inquiry and remedy; and I propose to suggest the appointment, at Oxford, of a subcommittee to examine and report thereon. It would not be difficult to arrange some plan whereby the anomaly could be removed without in any degree weakening the operations of the Branches.

6. In the case of the British Association for the Advancement of Science—an organisation very similar to our own—the Council is thrown open in the widest manner; it contains some hundreds of names, and no member of the smallest eminence is excluded from its deliberations.

7. The system of Branches, although highly successful in certain localities, is inadequate in certain other localities, and under certain circumstances. It is notoriously inadequate in the great centres of medical activity, where the ground is already occupied by flourishing medical societies. It is also impossible in the army and navy.

8. It must be remembered that the General Council only meets once a year—namely, during the holding of the annual meeting—and that, therefore, there would be no more difficulty in securing the attendance of eminent persons on the Council than in getting their attendance at the annual meetings. The latter point is already in a great measure gained, and the former would be equally attainable.

Our Association began as a provincial society; it was the expression of an idea that the provinces should claim and possess their share in the movements of medical opinion and medical work, as well as the metropolitan centres. But the Association contained another idea even more important than this—though, perhaps, only imperfectly perceived by its founders—namely, the idea of uniting the disconnected forces of the medical profession into an organised power. This latter idea has year by year become more prominent; and the Association, from having been *provincial*, is now rapidly becoming *national*, and its annual meeting is assuming the proportions of a national congress of medical men from every part of the kingdom. The medical profession has hitherto been like a rope of sand—powerless for any concerted action; but our Association bids fair to build it up into an effective unity, capable of infinite service to the cause of public health and the cause of science.

The object of the change which I suggest, is to accelerate this tendency; to hasten the time when the Association shall be as broad and as deep as the profession in the United Kingdom; to give it the bulk and momentum to be derived from the mass of practitioners on its roll, and to endow it with the character and authority which will be imparted to its operations by the presence, in their natural places, of the leading men of the profession, whether provincial or metropolitan.

I am, etc., W. ROBERTS, M.D.

Mosley Street, Manchester, July 27th, 1868.

STATE MEDICINE.

SIR,—Kindly oblige me by allowing me to correct an error in my letter relative to Dr. Rumsey's scheme in your last issue. Dr. Rumsey has pointed out to me that the plan of an establishment of district officers of health promulgated by me many years ago when working on the Health of Town's Commission, is not to be found in the *Medical Gazette* for 1845. I find that the paper is dated February 9th, 1846, and I now enclose you a copy of it. If you will do me the favour to look over it you will perceive how exactly its recommendations correspond, even to minute particulars, with those of Dr. Rumsey. And no wonder. My paper was based upon the recommendations of that veteran sanitary reformer, Mr. Edwin Chadwick, and upon the result of evidence which we obtained in the first inquiry into the Health of Towns. This is no credit to me, nor discredit to Dr. Rumsey and his colleagues. It only shows how two minds, thinking out a subject carefully, must of necessity arrive at nearly similar conclusions, supposing their data to be sufficient.

Allow me to enlarge upon one or two points contained in the paper of 1846, in supporting Dr. Rumsey's present project. As regards the advisability of separating the duties of medical officer of health from those of the ordinary practitioners, I quoted Mr. Chadwick as follows: "Whatsoever administrative arrangements sustain narrow districts and narrow practice, sustain, at a great public expense, barriers against the extension of knowledge by which the public would benefit; *and any arrangements by which such districts or confined practice are newly created will aggravate existing evils.*"—*Sanitary Report*, pp. 355. With this I still entirely agree, and repeat what I then stated; viz., that "if a separate medical officer be appointed for each town, it follows that, from motives of economy, the administrative body will not agree to pay more than a small salary which would not compensate a man of science for relinquishing the emoluments of private practice. Moreover, competition amongst a numerous body of resident practitioners would lead to the cheapening of the office, and there would be set on foot a system of canvassing of persons whose fitness to judge of the requisite qualifications for such an office must be more than questionable; and the chances are that the individual elected would be totally unfitted for the office, either by previous education and study, or by special attention bestowed upon the subject" (see the *Paper* of 1846, p. 4). "If, on the other hand, larger districts were adopted, the supervision of which would occupy the whole time of such an officer at a salary sufficient to compensate a well-educated and experienced person for giving up his hopes of success in curative practice, the duties would be more efficiently performed, and the respectability and dignity of the office secured. The appointments would, in this case, be more properly vested in the Government than in the local authorities" *(Ibid.*, p. 5).

If I may be allowed to notice the letter of "A Medical Officer of Health," which follows mine in the same issue, I would remark that he appears to mistake the views of Dr. Rumsey and his colleagues altogether; or, if not, he sadly misstates them. Dr. Rumsey's object is to secure the best possible officer for the important duties, totally distinct from general practice, which education, special study, and sufficient opportunities of acquiring information may afford. For them the pay should be liberal, and commensurate with what such an officer would resign in relinquishing the chances of the emoluments arising from successful curative practice. He would in no way interfere with or derogate from the status of the ordinary practitioner, whose applied knowledge is therapeutical, whilst that of the sanitary officer would be preventative and analytical, combining the resources of physics, chemistry, and physiology, with special knowledge of cosmical phenomena as they affect epidemic and endemic sources of disease. As "Medical Officer of Health" fears, such officers should, indeed, be differently trained, differently examined, and differently styled, though not, perhaps, differently *graduated.* Why not? Is not the pure or Hospital surgeon differently educated, and differently examined, and differently styled, from the pure physician? May not a man make a special study of midwifery, or of skin-diseases, to the comparative neglect of some other branch of the same one and undivided profession? Is it not the case that our highest authorities, whether on medicine, surgery, or the dropsy, obtain that authority by contracting their attention within narrower limits than the general practitioner can afford to do? It appears to me, therefore, to be nonsense to talk of our noble profesion being "threatened with further disintegration in the shape of a tate medicine diploma," which, even if instituted, would no more divide he profession than does the separate existence of the present Colleges f Physicians and Surgeons. It is not because they believe that "the lements of health, the etiology and pathology of disease, differ *toto cœlo* n a community from those in the individual," that Drs. Rumsey, Acland, nd Stewart advocate the separation of the office of Sanitary Physician nd Inspector from that of any other practitioner; but because he has o deal with physical, chemical, and vital phenomena under a totally lifferent aspect from that in which they are ordinarily presented to the ttention of the curative practitioner. And they advocate, along with nyself, large districts, in order that the office may be one of dignity and vell remunerated, and that the appointment to and control of it may e taken out of the hands of local Bumbledom.

I rejoice to find that the Medical Council have granted the Committee n the subject; and I have no fears but that its ultimate recommendaions will be in accord with those of the Medical Officers of Health of argest experience in the largest fields of observation, as they already are vith those of the most distinguished amongst our leading physicians. 'Life is short, and art is long;" and the superaddition of such duties as hose of an efficient officer of public health to the work of the ordinary hysician or surgeon would simply break his back, if properly performed y the light of all our modern science and resource.

I am, etc., **Wm. Strange, M.D.**

Worcester, July 14th.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

OYSTON UNION: PAYMENT OF MEDICAL OFFICERS PER CASE.

Ve, the undersigned medical officers of the Royston Union wish to exress, with the utmost earnestness, our approval of the system of renuneration hitherto adopted in this union; viz., that of payment per case. fter an experience of many years, we do not hesitate to say that we onsider it far preferable to any system of fixed salary; and, without xpressing any opinion as to the sum per case which ought to be paid o render Poor-law appointments properly remunerative, recommend trongly the general introduction of a system, similar to that in operaion here, in which the payment, though small, bears some direct proortion to the work done, and which, in this locality, has always worked vell, not only for the medical officers, but also for the ratepayers and aupers of the district.

R. Pyne, Surgeon to No. 1 District for 32 years; D. B. Balding, Surgeon to No. 2 District for five years; formerly Surgeon to South District of St. Marylebone, London; Ed. Tindale, Surgeon to No. 3 District for 32 years; E. J. Carver, Surgeon to No. 4 District for 7 years; also Surgeon to Wimpole District, Caxton Union; Jas. Balding, Surgeon to No. 5 District for 32 years; also Surgeon to No. 5 District, Saffron Walden Union; John Patterson, Surgeon to No. 6 District for 32 years.

Having carefully watched the operation of the per case system of paynent for medical relief for thirty-two years, I fully concur in the above tatement. **Henry Thurnall**, *Clerk*.

PORTSEA UNION.

Charge of Neglect.—We have before us the particulars of an inuiry by the Portsea Island Board of Guardians into a charge against r. Hardin, the out-door medical officer, of neglecting to attend in a ase of confinement. It appeared that the patient had been delivered y her mother before an order was obtained; that when Dr. Hardin atended, the husband left at his dispensary the following impudent nessage in writing. "The man Bayley reports as to his wife's case. He ays his wife has been neglected by the doctor, who is a trumpery felow, and unfit to be a doctor. The medicine he has ordered has made er worse. He will not allow her to take any more, but says he will ake the woman for examination to another medical man." Altogether is manner was most insolent and disrespectful. We think that, under hese circumstances, Dr. Hardin was amply justified in refusing to atend further until he received an apology. The guardians seem to have hought otherwise; but perhaps they are so little accustomed to treat heir doctor like a gentleman, that they hardly expect other people to o so. Presuming that they have full claim to that treatment themelves, and a just perception of the rules of decent propriety in conduct and language, we should be glad to know how either of them would have resented insolence of the kind, or what course the relieving officer would have taken if a pauper applying for relief had used similar language.

MEDICO-PARLIAMENTARY.

BABY-FARMING.

The Earl of **Shaftesbury** wished to ask a question on a subject which had obtained much notoriety, in a great measure through the efforts of the British Medical Journal, the conductors of which had incurred considerable trouble and expense in searching into the abominable system. The system might be divided into two parts. One, and a comparatively legitimate part, was the baby-nursing, where infants were placed out to nurse by persons who really looked after them to some extent; the other part was the baby-farming, where infants were put out for the sole purpose of being got rid of altogether, or of never being heard of again by the parents. To this class of persons who made this a trade belonged Mrs. Winsor, who escaped from punishment by a strange technicality in the law; and there was every reason to believe that these Mrs. Winsors were numerous, and were carrying on a large trade in many parts of the kingdom. Such a state of things had excited, very naturally, much terror. What, it was asked, could be the state of our laws when they were found so ineffectual as to be totally unable to put down such practices? On the other hand, there were persons who relied on the known inefficiency of the law to enter on a career of crime, and the knowledge that this crime existed and was not suppressed produced the worst effect; for it familiarised the public in the most frightful manner with the perpetration of crime, and taught them that it was not to be reached by the law. Under these circumstances he begged to ask the Lord President of the Council whether the attention of the Government had been directed to the system of baby-farming; and, if so, whether they intended to institute any inquiry into the subject.

The Duke of **Marlborough** said that, owing to the notice of this question which had been given by his noble friend, he had had some inquiries made into the subject. Unfortunately, it was too true that a system of what was called baby-farming existed, under which the grossest crimes might be committed. His noble friend had asked whether the Government intended to institute such an inquiry. He believed that the facts were not such as to demand inquiry. The system had been thoroughly exposed in the able papers in the British Medical Journal to which his noble friend referred. No doubt the conductors of that Journal had rendered a great public service, which he had great pleasure in recognising. Persons who had an unnatural desire to get rid of their children, put them out to nurse in the charge of those who, by neglect or other methods with which they were familiar, probably brought about the deaths of these poor infants. It was intolerable that such acts as these should be committed in a civilised country, and yet escape without punishment by the law. But the matter was rather one of police than of sanitary investigation. Measures might be adopted for putting an end to so inhuman a practice, either by registering the houses of persons taking these children to nurse, or by a system of licensing combined with periodical inspection by properly qualified officers. [*Hear, hear.*] He was glad the noble earl had asked the question, because this was a subject of great importance. Government would turn their attention to the question during the recess, and he hoped that they would be able to discover means which, embodied in a Bill, would obviate the dangerous abuses to which attention had been directed.

⁂ We publish, with great gratification, this record of the public usefulness of our inquiries into the subject of baby-farming. Not only has the object, which we announced at the outset, of invoking the attention and intervention of the Government to restrict this system of organised murder, been realised; but the statement of the Duke of Marlborough indicates that the Government are likely, in the legislative measure which they propose to base upon our papers, to adopt precisely the suggestions which we made as to the remedies for the evil. We believe that the district Poor-law medical officers will be found to be the persons best qualified, by their knowledge of the homes and circumstances of the poor and their habit of visiting among them, to hold these offices.

The Sanitary Act (1866) Amendment Bill.—This Bill has been read a third time, and passed.

THE ARMY MEDICAL DEPARTMENT.—Mr. O'Beirne asked the Secretary of State for War whether his attention had been directed to the slow and unsatisfactory promotion from the rank of assistant-surgeon in the Army Medical Department; and whether he was of opinion that measures should be taken to assimilate the system of promotion in that branch of the service to that which exists in the Indian medical service, where it was obtained after a period of twelve years.—Sir J. Pakington could not help taking exception to the first portion of the hon. member's question. The hon. gentleman could, he imagined, have scarcely been aware of the fact that last year no less than sixty-five assistant-surgeons were promoted, while in no year during the ten preceding years had the average of promotions exceeded forty. Instead, therefore, of the promotion being "slow and unsatisfactory," it had never been more rapid or more satisfactory than it was at the present time. With reference to the latter portion of the hon. member's question, he might remind the hon. gentleman that the whole of this subject was carefully considered by a select committee as lately as 1866; and under the circumstances he did not see that any measures such as those suggested by the hon. gentleman were required.

SUN-STROKE.—The right hon. gentleman added that he had made inquiry into the alleged occurrence of nine cases of sun-stroke, and eighty-seven other cases of illness, in the flying squadron at Aldershot, arising out of the excessive heat; and he was happy to learn that there had only been three instances of indisposition—all trivial ones—and no case of sun-stroke at all.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF EDINBURGH.

ELECTION OF CHANCELLOR.—An influential meeting of Graduates and Members of the General Council of the University of Edinburgh was held in St. James's Hall on Thursday, July 30th; Dr. T. Graham Balfour, F.R.S., in the chair. A Committee was organised in London to promote the election of the Right Hon. the Lord Justice-General of Scotland as Chancellor of the University. Dr. Sieveking was appointed Chairman of the Committee; Drs. Graham Balfour, F.R.S., Charles Murchison, F.R.S., and Mr. Balfour Stewart, LL.D., F.R.S., Vice-Chairmen; and Dr. Duckworth, Secretary. A strong feeling was expressed that the great services which the Lord Justice-General had rendered to the Scottish Universities as author of the Scottish Universities Act, and afterwards as Chairman of the Universities Commission, and his eminence as a leader of the Scotch Bar, and as President of the Court of Session, pointed him out as an eminently fit person for the office. A very large amount of support has already been promised to him by graduates resident in Scotland, England, and Ireland.

UNIVERSITY OF CAMBRIDGE.

SCHOLARSHIPS AT SIDNEY SUSSEX COLLEGE.—There will be an examination at this College on Wednesday, October 7th, 1868, open to all students who intend to commence residence; when, provided fit candidates present themselves, the following scholarships will be filled up: Two for Classics only, value *per annum* each, £40; two for Mathematics only, each £40; two for Natural Science (Heat, Electricity, Chemistry, Geology, Anatomy) or Mathematics, each £40; one or more Johnson Exhibitions, each £32. Two scholarships may be held by the same person; and each will be tenable for three years at least, or until promotion to another of greater value. All candidates will be expected to show a fair knowledge of the *set* subjects in Classics, and also of Arithmetic, the early part of Algebra, and first three Books of Euclid. The following books are recommended by the Examiners for the Natural Science Scholarships: Heat and Electricity—Ganot's *Physics;* Chemistry—Fownes, Church and Northcote's *Chemical Analysis;* Geology—Lyell's *Principles* and *Manual;* Anatomy (Human Osteology and General Anatomy)—Gray's *Anatomy*, Holden on the *Bones*. The names of candidates must be entered on the College Boards on or before October 1st. Any further information may be obtained of the tutor, the Rev. J. C. Williams Ellis. Candidates must present themselves in the College Hall on Wednesday morning, October 7th, 1868, at nine o'clock.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS.

For the week from 22nd to 28th July (both inclusive), 1868.

Taken at Kew, by Dr. TREUTLER, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to mean sea-level	30.063
Highest reading (corrected and reduced), on 24th, at 10 A.M.	30.421
Lowest ditto Ditto on 28th, at 10 P.M.	29.685
Range of pressure during week	00.736
Mean temperature of air in shade	72.8
Mean temperature of evaporation	65.0
Mean temperature of dew-point	59.2
Mean degree of humidity (saturation=100)	62.0
Maximum in the shade, on 22nd	93.0
Minimum (protected), on 24th	50.4
Minimum (exposed on grass)	43.2
Greatest range of temperature during week	49.8
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 28th	154.8
Mean amount of clouds (0—10)	3.5
Total rainfall (which fell on 26th)	0.04 inch

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.
10 A.M.	0	3	1	0	0	2	1	0	0
2 P.M.	0	1	1	1	1	3	0	0	0
10 P.M.	0	2	1	0	1	1	0	1	1

Mean force of wind (0—12) 3.4

The week, from 21st to 28th July, has been warm and dry, especially at its beginning. The barometer, which had been high, fell somewhat rapidly after the 26th. Winds have been light and variable, blowing from SW and NE in almost equal proportions. The state of the general health is good. A few slight cases of summer diarrhœa have occurred, but are recovering.

Kew, July 29th, 1868.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

AT the meeting of the Comitia, July 30th, 1868, the following officers were elected. *Censors*—J. Risdon Bennett, M.D.; W. Wegg, M.D. R. Quain, M.D.; A. Whyte Barclay, M.D. *Treasurer*—F. J. Farre, M.D. *Registrar*—H. A. Pitman, M.D. *Librarian*—W. Munk, M.D. *Members of Council*—C. Handfield Jones, M.B., in the room of Dr. F. J. Farre; W. H. Walshe, M.D., in the room of Dr. J. R. Bennett. *Examiners*—Anatomy and Physiology: J. W. Ogle, M.D.; H. Hyde Salter, M.D. Chemistry, Materia Medica, and Practical Pharmacy: E. H. Sieveking, M.D.; W. Marcet, M.D. Midwifery and the Diseases peculiar to Women: C. Blakely Brown, M.D.; W. O. Priestley, M.D. Medical Anatomy and the Principles and Practice of Medicine: G. Owen Rees, M.D.; E. L. Birkett, M.D. Surgical Anatomy and the Principles and Practice of Surgery: J. Birkett, F.R.C.S.; T. Holmes, F.R.C.S. *Curators of the Museum*—G. Hamilton Roe, M.D.; F. J. Farre, M.D.; W. Wegg, M.D.; F. Sibson, M.D.

The following was the list of Members nominated by the Council for election as Fellows. William Ogle, M.D.Cantab., Derby; C. A. Lockhart Robertson, M.D.Cantab., Surrey County Asylum, Hayward's Heath; T. Harrington Tuke, M.D.St. Andrew's, Manor House, Chiswick; J. D. Heaton, M.D.Lond., Leeds; J. E. Morgan, M.D.Oxon., Manchester; W. Moxon, M.D.Lond., Finsbury Circus; J. Hughlings Jackson, M.D.St. Andrew's, Bedford Place, Russell Square; Reginald E. Thompson, M.B.Cantab., South Street, Park Lane; E. Symes Thompson, M.D.Lond., Upper George Street, Portman Square.

The final Revise of the Nomenclature of Diseases having been laid on the table, it was resolved, on the motion of Sir THOMAS WATSON, seconded by Dr. SIBSON, to authorise the President of the College to send a copy to each Fellow, and also to each Member and Licentiate, if, after consultation with the Board of Censors, he shall deem such course advisable.

Dr. C. J. B. WILLIAMS gave notice of his intention to submit for the consideration of the College the following scheme for the nomination and election of Fellows. "Before the Council prepares the list of Members to be proposed for the Fellowship, it shall be open to receive for consideration the name of any Member or Members, of a certain standing, recommended by two or more Fellows, with a statement of the grounds of their recommendation. Further, if not satisfied with the list of names recommended for election by the Council, it shall be open to any of the Fellows to add to the names on the list. The lists, so altered, shall be suspended in the hall of the College for a fortnight, at the end of which time a Comitia Majora shall be held, and shall proceed to a ballot; and all those Members shall be elected to the Fellowship whose names have a majority of the votes of the Fellows present."

After some conversation, in which Dr. Williams, Sir Thomas Watson, Dr. Bence Jones, and others, took part, it was agreed to take the subject into consideration at the next quarterly Comitia.

This resolution, as it at present stands, carries out precisely the suggestion which we made recently on this subject. The details of the latter part of the resolution will obviously require careful reconsideration; as the resolution purports to give power to any individual Fellow with his own hand to alter the lists issued by the Council, after considering all suggestions sent to them, and to take a vote upon his altered list. It is obvious that no Council would consent to frame a list which should be subjected to unlimited emendations by individual Fellows; and if the spirit of this resolution recommend itself to the Fellows at large, any list whatever is superfluous, for a list susceptible of unlimited alterations has no value or authority.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on July 21st:—

Alabone, E. G., Hackney (London Hospital)
Anderson, Tempest, L.S.A., York (University College Hospital)
Bartlett, J. P., Ladbroke Square (University College Hospital)
Black, J. G., Newcastle-upon-Tyne (Newcastle-upon-Tyne Hospital)
Boulton, G. S., Albrighton, near Wolverhampton (Guy's Hospital)
Brickwell, E. A., L.S.A., Sawbridgeworth, Herts (St. Bartholomew's Hospital)
Doughty, J. P., Hobart Town, Tasmania (Guy's Hospital)
Fox, R. D., Beccles (Middlesex Hospital)
Heap, C. S., Belfast (Belfast Hospital)
Hodgson, William, Brigham, Cumberland (University College Hospital)
Johnson, G. B., Newcastle-upon-Tyne (Newcastle-upon-Tyne Hospital)
Little, William, Eye, near Peterborough (King's College Hospital)
Moullin, H. R., Guernsey (St. George's Hospital)
Payne, W. H., Bristol (Bristol Hospital)
Peacock, Stanley, Kensington (University College Hospital)
Pidwell, Samuel, Penzance (University College Hospital)
Porter, John, Manchester (Manchester School of Medicine)
Price, William, Cardiff, South Wales (University College Hospital)
Roche, William, L.R.C.P. Ireland, Ipswich (Dublin and King's College)
Scott, P. T., Fulham, Middlesex (Guy's' Hospital)
Wheatcroft, S. H., Sheffield (Sheffield Hospital)
White, Frederick, Liverpool (Liverpool and University College)
Whitefoord, C. C., Melbourne, Australia (University College Hospital)
Yorath, E. W., St. John's Wood (Charing Cross Hospital)

Admitted members on July 22nd:—

Atkins, A. W. G., Hadleigh, Suffolk (Guy's Hospital)
Bell, W. J. N., Leicester (St. Bartholomew's Hospital)
Duke, Joshua, Kennington Park (Guy's Hospital)
Esnouf. E. C. A., Mauritius (University College Hospital)
Forder, J. L., Mauritius (University College Hospital)
Foster, A. C., Leeds (Leeds School of Medicine)
Heim, C. M. (St. Bartholomew's Hospital)
Jones, W. O., Horton, Bucks (St. Mary's Hospital)
Lafargue, Paul, Paris (St. Bartholomew's Hospital)
Lewin, Friend, Bayswater (St. Mary's Hospital)
Mapei, L. V., Liverpool (Royal Infirmary, Liverpool)
Mason, George, L.S.A., Wisbeach (Guy's Hospital)
Nason, C. A., Nuneaton (Guy's Hospital)
North, John, Winchester (St. George's Hospital)
Rowlands, D. G., Carmarthen (Guy's Hospital)
Schön, J. E., Chatham (London and Middlesex Hospitals)
Shakelford, Shuckburgh, Bosworth, near Rugby (St. Mary's Hospital)
Townsend, Meridith, L.S.A., Clapham Rise (St. Thomas's Hospital)
Turner, J. B., Jamaica (Charing Cross Hospital)
Whitcombe, E. B., Birmingham (Birmingham Hospital)

Admitted members on July 23rd:—

Ainley, Daniel, Halifax (St. Bartholomew's Hospital)
Banks, Richard, Cockermouth (Guy's Hospital)
Bates, Tom, L.R.C.P. Edin., Worcester (Glasgow and Paris)
Boyd, Herbert, St. John's, New Brunswick (St. Mary's Hospital)
Brown, David, Dublin (Dublin and Belfast Hospitals)
Chorley, M. W. W., Leeds (Leeds School of Medicine)
Colson, Edward, Great Hormead (Guy's Hospital)
Edwards, Branford, L.R.C.P. Lond., Ipswich (Guy's Hospital)
Patrick, Robert, Bolton (Manchester School of Medicine)
Gittins, T. J., Barbadoes (Guy's Hospital)
Lett, Francis, Woolwich (Guy's Hospital)
Mason, J. D., Lewisham (Guy's Hospital)
Scott, W. J., Cape of Good Hope (University College Hospital)
Smith, Leonard, Cambridge Street (St. George's Hospital)
Walker, G. S., Islip, Oxon (St. George's Hospital)
Wing, C. E., Bury St. Edmunds (Guy's Hospital)

Admitted members on July 24th:—

Bevan, J. B., St. Ives, Cornwall (University College Hospital)
Brockwell, Thomas, Sturry, Kent (Guy's Hospital)
Chatterton, James, M.D. Dublin, Cork (Cork School)
Drinkwater, William, L.S.A., Shepherd's Bush (King's College Hospital)
Earle, T. E., Calcutta (University College Hospital)
Leahy, John, Bombay (University College and Bombay)
Ledgard, W. E., Fulford, Yorkshire (St. George's Hospital)
Morgan, G. J., Shrewsbury (Birmingham and King's College Hospitals)
Nettleton, H. T., Paymaster Royal Navy (Westminster Hospital)
Penruddock, George, Bath (Middlesex and Bath Hospitals)
Renshaw, W. A., Altrincham (Manchester School of Medicine)
Sanders, Edwin, Jersey (St. Bartholomew's Hospital)
Smith, Frederick, Great Grimsby (London Hospital)
Staples, H. T., Brompton (King's College Hospital)
Trevor, S. L., Welshpool (King's College Hospital)
Waring, F. J. A., Dublin (Dublin School)
Welsh, Inman, Bayswater (St. Mary's Hospital)

Admitted a member of the College under the old regulation:—

Dawson, John, M.D. Philadelphia, of Rangoon, British Burmah

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 23rd, 1868.

Amsden, George, King's College Hospital
Andrews, George, Sarsden, Chipping Norton
Bate, George Paddock, Walton, Stone, Staffordshire
Black, John Gordon, Newcastle-upon-Tyne
Blenkinsop, Frederick Henry, St. George's Hospital
Brett, Francis Charles, Halsey Street, Cadogan Place
Evans, Thomas Walter, Llanymawddwy, Merionethshire
Hallowes, Adolphus Henry Blackwood, Redhill, Surrey
Laidler, Joseph, South Stockton-on-Tees

At the same Court, the following passed the first examination.

Bell, John Albert, St. Thomas's Hospital
Bullock, James Lawrence, University College Hospital
Butler, Charles, St. Bartholomew's Hospital
Crowther, William Edwin, Guy's Hospital
Hyde, William Desley, Charing Cross Hospital
Pearce, William Henry, Charing Cross Hospital

MEDICAL VACANCIES.

THE following vacancies are declared:—

BARRA, Inverness-shire—Parochial Medical Officer.
BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer.
CHERTSEY UNION, Surrey—Medical Officer for No. 4 or Windlesham District.
CLAREMORRIS UNION, co. Mayo—Medical Officer for the Ballindine Dispensary District.
CLIFDEN UNION—Two Medical Officers for the Roundstone Dispensary District.
CLONAKILTY UNION, co. Cork—Medical Officer for the Rosscarbery Dispensary District.
DEVON COUNTY LUNATIC ASYLUM, Exminster—Assistant Medical Officer.
DUDLEY DISPENSARY—Resident Medical Officer.
KILKEEL UNION, co. Down—Medical Officer for the Workhouse and Fever Hospital; Medical Officer for the Kilkeel West Sub-Dispensary District.
KIRKMABRECK, Kircudbrightshire—Parochial Medical Officer.
LEEDS PUBLIC DISPENSARY—Assistant Resident Medical Officer.
LOCHBROOM, co. Ross and Cromarty—Parochial Medical Officer.
MACCLESFIELD DISPENSARY—House-Surgeon.
MONAGHAN COUNTY INFIRMARY—Apothecary and Registrar.
NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh—Assistant Medical Officer.
OUGHTERARD UNION, co. Galway—Medical Officer for the Oughterard Dispensary and the Workhouse.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician; Assistant-Physician.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
ROYAL SOUTH LONDON DISPENSARY, St. George's Cross—District Surgeon to visit Out-Patients in Blackfriars District.
SHOTTS IRON WORKS, Motherwell, Lanarkshire—Medical Officer.
ST. GILES and St. GEORGE, Bloomsbury, Parishes of—Resident Assistant Medical Officer.
ST. MARYLEBONE GENERAL DISPENSARY—Physician; Surgeon.
STOCKPORT INFIRMARY—House-Surgeon.
TRINITY COLLEGE, Glenalmond—Resident Medical Officer.

MEDICAL APPOINTMENTS.

BRAINE, Francis W., Esq., appointed Chloroformist at the Dental Hospital.
NICOLSON, C., M.A., B.Sc., M.B., and C.M., appointed Resident Physician to the Medical Missionary Training Institution and Dispensary, Cowgate, Edinburgh.
*SMITH, Heywood, M.A., M.B.Oxon., M.R.C.P., appointed Assistant-Physician to the Hospital for Women.
THOMPSON, J. Ashburton, Esq., appointed Resident Obstetric Assistant at Middlesex Hospital, *vice* Osman Vincent, Esq.

INDIAN ARMY.

PICKERING, Surgeon-Major C. W., Madras Establishment, retiring on full-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.

BIRTHS.

BRADBURY.—On July 24th, at Corpus Buildings, Cambridge, the wife of *J. B. Bradbury, M.B., of a daughter.

GWYNN.—On July 23rd, at Wem, Salop, the wife of *S. B. Gwynn, Esq., Surgeon, of a daughter.

MARRIAGES.

TYDD, Benjamin, Esq., Surgeon, 23rd R. W. Fusiliers, to Mary, eldest daughter of the Hon. Robert JONES, of Montreal, at Bodenham, Herefordshire, on July 2nd.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

We cannot undertake to return Manuscripts not used.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

The pressure on our space incidental to the Annual General Meeting compels us to suspend for a short time the Reports on the Finances and Administration of the Metropolitan Hospitals. We shall, as soon as possible, publish a further Report, which is nearly ready, on the Comparative Expenditure of some of the Principal Metropolitan Hospitals.

Proposed Conference of Medical Graduates.

If Dr. Martin wishes to carry out his suggestion for a conference of Aberdeen and Glasgow graduates at the Annual General Meeting, he should, immediately on arriving at Oxford, communicate with the General Secretary, at E. Chapman's, Esq., M.A., Frewen Hall, Corn Market Street.

Impromptu Catheters.

Sir,--I remember well Dr. Keith of Aberdeen in his clinic stating that, on an emergency, he had employed, with the best success, an impromptu catheter made of a long slip of stiff paper rolled into a tube, as if for making a spill.

London, July 1868. I am, etc., M.D.Aber.

Dr. Gray (Oxford).—The valuable Report of the Contagious Diseases Association, may be had of Ballière, Regent Street, price one shilling. It is a document of great medical and social interest; and we have little doubt that the result will be to bring about legislation early next year. In this, as in the Workhouse Infirmaries' movement, the influence of professional men in promoting, by disinterested exertions, reforms of great public moment, has been most satisfactorily evidenced and publicly acknowledged.

The Recent Death from Carbolic Acid.

We have no doubt that Messrs. Calvert are perfectly justified in expressing a disbelief that the sad accident at Clapham was due to the inhalation of carbolic acid, which is, we believe, harmless, and often curative. The fact is, that the evidence given at the inquest was incorrectly reported; the cause of death was there described as "asphyxia". The appearances presented—viz., intense lividity of the face, neck, and shoulders, the expression of the countenance, the prominent eye, etc.—evidenced unmistakeably that such was the case. There is no doubt but that, through a fault in the apparatus, the acid, which Mr Berger wished to introduce into the cavity of the painful tooth to stop the toothache, flowed too rapidly into the mouth, and that some must have reached the larynx, producing spasm of the glottis; that the alarm produced sudden faintness (for the unfortunate sufferer had fallen down and vomited); this added faintness would, of course, increase the rapidity of the asphyxiating effect, and death must have resulted very speedily. There was no *post mortem* examination; nor was such deemed at all necessary, as there was no doubt in the minds of the medical men as to the nature of the accident being such as we have described.

Treatment of Epistaxis by Simple Compression of the Nostrils.

Sir,—In your Journal of the 18th inst., Dr. Taaffe has related a severe case of epistaxis under his care cured by simple *compression of the nostrils between the thumb and forefinger.* He says: "In no medical or surgical work, as far as I know, is mention made of this method." Now, in Miller's *Practice of Surgery* (2nd edit., 1852), *compression of the anterior nares* is spoken of; and Dr. Druitt, in his *Vade Mecum* (5th edit., 1851), says: "*If compression of the nostril do not stop it*," etc. Dr. Tanner, in his *Index of Diseases* (1866), recommends *external compression of nostril with finger.* Until now, I was under the impression that this method of treatment was well known to the profession. I have adopted it many times; and it would seem to suggest itself as a first step in all cases requiring interference. When epistaxis follows the exanthemata, typhoid fever, and some other morbid states of the blood, the plan is not so likely to succeed, because the hæmorrhage is rather an exudation from the whole nasal passages, than from any particular set of bleeding vessels, and internal remedies will be found indispensable in the treatment of such cases. I am, etc., W. H. Day, M.D.

10, Manchester Square, W., July 1868.

Protoxide of Nitrogen as an Anæsthetic.

Constant Reader and Member (Wrexham).—In addition to the information contained in the various articles already published in the Journal on the subject, we can only say here that the protoxide of nitrogen is, we think, best administered with a Clover chloroform-bag and face-mask; improved masks may be obtained, for the purpose, of Coxeter. The gas may be obtained, compressed, of Mr. Barth, Duke Street, Portland Place, London; or it may be made at home by the process described in the paper of A. R. Leeds, A.M., in the British Medical Journal of April 18th; and administered either from a gasometer or from the bag, as above; the gas only should be inhaled, without a mixture of atmospheric air. If our correspondent should be at Oxford, he will probably have the opportunity of seeing it administered by Mr. Clover or by Dr. John Murray, who propose, if the opportunity occurs, to demonstrate the properties of this anæsthetic, either for the purposes of ordinary surgical operation or of extraction of teeth.

Cholera.

Sir,—In your Notices to Correspondents in this current number of the Journal, and in your reply to Mr. A. A. Von Glehn, as to the treatment of cholera, you remark, that a reference to the recent lecture of Sir T. Watson will assure that gentleman "that the practice of giving purgatives for cholera and diarrhœa was, in fact, tried, with favourable results, nearly half a century ago, by English practitioners in India; its professed object being that of getting rid of offensive morbid secretions." Of the truth of this statement, there is no doubt; but, as a matter of fact and history in therapeutic science, it is well to know that "choleraic diarrhœa" and "cholera Asiatica were treated on the evacuant plan in a large public establishment near London, by an English practitioner, at and during a period subsequent to the said "half a century ago"; and anterior, by something like twelve years, to the conversion of Dr. G. Johnson himself to the "new" theory and treatment of the maladies named above.

In the *Lancet* (vol. xl) for 1842 and 1843, is a paper treating on the nature of "cholera" and its treatment, at the Hanwell County Lunatic Asylum, by "the steady and persistent use of purgative medicines", given with a view "to restore the suspended functions of the abdominal organs"; and to this same paper my own name is seen attached. In what was called the Association Medical Journal for November 10th, 1852—*i.e.*, two years before Dr. G. Johnson had learnt to condemn or ignore that most abused of all compounds, "mist. cretæ co." for "choleraic diarrhœa" and "cholera Asiatica"—is a letter by the late Mr. Jones of Derby, in which purgatives, and particularly "calomel and colocynth", are recommended, and their good and curative effects demonstrated. Furthermore, in the *Lancet* (vol. i) of 1854, is to be found another paper by myself on "The Pathology and Treatment of Cholera", in which evacuants, such as ol. ricini, in combination with spirits of turpentine, etc., are declared indispensable to the relief and cure of this formidable malady. If Dr. G. Johnson's altered views and treatment of choleraic discharges occurred, as that gentleman tells us, in 1854, then the inference is that, so far as treatment is concerned, he has been, in the main, anticipated by not only English practitioners in India, but by myself (in 1842) and (in 1852) by the late Mr. Jones of Derby. I am, etc., Jas. Geo. Davey, M.D., M.R.C.P. Lond., etc.

Northwoods, near Bristol, July 25th, 1868.

Mr. Joyce (Staplehurst).—Safely received. Escaped acknowledgment by accident.

The M.S. of the Former House-Surgeon of the Royal Free Hospital has been ready for him during the week at the office.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Worcester Herald, July 18th; The Sheffield Daily Telegraph, July 16th; The Irish Times, July 25th; The Western Morning News, July 25th and 27th; The Northampton Herald, July 25th.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Acland, Oxford; Dr. Ogston, Aberdeen; Dr. Keith, Aberdeen; Dr. Lionel Beale, London; Dr. Bastian, London; Dr. Fayrer, Calcutta; Dr. Gibbon, London; Dr. Stewart, London; Mr. Chapman, Oxford; Dr. Gull, London; Dr. Rolleston, Oxford; Dr. Dobell, London; Dr. Rutherford, Edinburgh; Dr. J. Marion Sims, Paris; Dr. John Harley, London; Mr. A. Fleischmann, Cheltenham; Mr. Terry, Northampton; Mr. J. Hoppe, London; Dr. J. E. Eddison, Leeds; Dr. H. M. Tuckwell, Oxford; Mr. W. C. Walker, Shepton Mallet; Dr. R. S. Thring, Lowestoft; Dr. J. FitzPatrick, Ticehurst; H. H. R., London; Dr. A. Paterson, Dollar; Dr. A. Miller, Edinburgh; Dr. Deane, Highgate; Dr. Greenhalgh, London; Dr. Hoffman, Birmingham; Dr. B. W. Foster, Birmingham; Dr. T. Clifford Allbutt, Leeds; Mr. F. Woodhouse Braine, London; Mr. Lockhart Clarke, London; Dr. Rumsey, Cheltenham; Mr. T. Watkin Williams, Birmingham; Mr. Heckford, London; Dr. Treutler, Kew; Dr. W. Roberts, Manchester; Mr. Langston Parker, Birmingham; Mr. Ransome, Bowden, Manchester.

LETTERS, etc. (with enclosures) from:—

Mr. F. Le Gros Clark, London; Professor Lister, Glasgow; Dr. Kelly, London; Dr. Mulvany, Royal Navy, Lake Erie; Dr. Heywood Smith, London; Mrs. Baines, London; Mr. Rivington, Bromley; The Registrar-General of Ireland; Mr. T. M. Stone, London; Dr. John Murray, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; Dr. J. G. Davey, Northwoods, Bristol; Dr. Styrap, Shrewsbury; Dr. W. Griffith, London; Mr. J. A. Thompson, London; Mr. H. Terry, jun., Northampton; Dr. Heygate, Derby; Mr. J. B. Bradbury, Cambridge; Mr. Gwynn, Salop; Mr. Couch, Bodmin; Mr. Chapman, Oxford; Mr. T. Spencer Wells, London; Mr. Lewis Willcox, Briggs; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. Tenison, Shepherd's Bush; Dr. George Johnson, London; Mr. Berkeley Hill, London; The Honorary Secretary of the Obstetrical Society; Dr. Crighton, Leamington; Mr. E. Lund, Manchester; Dr. R. Hibbert Taylor, Liverpool; Dr. Mapother, Dublin; Mr. Jonathan Hutchinson, London; Mr. T. Bryant, London; Mr. Higginbottom, Nottingham; Mr. Moore, London; Mr. Ravenscroft, London; Mr. F. C. Calvert, Manchester; Mr. Rendle, London; Dr. Falconer, Bath; Dr. Swayne, Clifton, Bristol; Dr. Laycock, Edinburgh; Dr. H. Simpson, Manchester.

VALEDICTORY ADDRESS

DELIVERED AT

THE THIRTY-SIXTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in OXFORD, August 4th, 5th, 6th, and 7th, 1868.

BY

WILLIAM STOKES, M.D., D.C.L.Oxon.,

Regius Professor of Physic in the University of Dublin.

MR. PRESIDENT OF COUNCIL, DR. ACLAND, AND GENTLEMEN,—My term of office, as Annual President of the British Medical Association, having expired, I have to resign the chair to one whose life and labours are a guarantee that he will do it honour. I need not ask you to believe with what sincerity I have appreciated the importance of the position, which, owing to your too flattering estimation of me, I have held since the occasion of the meeting in Dublin, where, as here, you were received and honoured in the halls of a great University.

To be chosen to preside over a society of three thousand educated gentlemen, all zealous for the advancement of human knowledge, many of them distinguished in the paths of literature and science, and not a few the practical doers of Christ's work upon earth, is a distinction of which any man might be proud, for which any man should be thankful. For, though the place of meeting influences the selection of President, the character of him who is to preside influences, at least among other things, the choice of the place of meeting. Here, and for the second time, you meet in Oxford, the heart of England, whose history is that of the country, the free, the enlightened, the religious—the conqueror in the arts of peace and of war.

Let me, before bidding you farewell, say a few words as to the future of this great Society—now the most numerous body working for the benefit of science in the world, and which will doubtless attain to larger dimensions. So far, we have been an united body, which is to be attributed to our federal constitution, with independent local action, and a representative and imperial executive. How long this strength-giving union may last no man can predict; nor, on the other hand, can any man say to what an amount of influence for good this Association may attain. But it is plain, that its durability and usefulness will depend on its being made the instrument for the public good, rather than the machinery to advance the immediate worldly interests of the profession. And every one of us must lay it to heart that a great issue rests within his hands. The man among us who by his unselfish labour adds one useful fact to the storehouse of medical knowledge, does more to advance its material interests than if he had spent a life in the pursuit of medical politics. Far be it from me to say that there are not great wrongs to be redressed. It is impossible, in any country, that evils of custom and of administration, private wrong, corporate shortcomings, hard dealings, unfair competition, and scanty remuneration for public and private services, should not occur. But these evils being admitted, how are they to be lessened, if not removed? Is it by public agitation and remonstrance, addressed to deafened or unwilling ears? Is it by the demand for class-legislation? or is it, by the efforts of one and all, to place medicine in the hierarchy of the sciences—in the vanguard of human progress; eliminating every influence that can lower it, every day more and more developing the unprofessional principle, while we foster all things that relate to its moral, literary, and scientific character? When this becomes our rule of action, then begins the real reform of all those things at which we fret and chafe. Then will medicine have its due weight in the councils of the country. There is no royal road to this consummation. On the one hand, the liberal education of the public must advance, and the introduction of the physical sciences in the arts courses of the Universities, has given the death blow to empiricism; and, on the other, that of ourselves must extend its foundations, and trust far less to the special than to the general training of the mind. When medicine is in a position to command respect, be sure that its rewards will be proportionally increased, and its status elevated. In the history of the human race, three objects of man's solicitude may be indicated: first, his future state; next, his worldly interests; and lastly, his health. And so the professions which deal with these considerations have been relatively placed: first, that of divinity; next, that of law or government; and, as man loves gold more than life, the last is medicine. But, with the progress of society, a juster balance will obtain, conditionally that we work in the right direction, and make ourselves worthy to take a share in its government, not by coercive curricula of education, not by overloaded examinations in special knowledge, which are, in comparison to a large mental training, almost valueless; but by seeing to the moral and religious cultivation, and the general intellectual advancement of the student. Doubtless, such a revolution, which, could men only read the signs of the times, is slowly, though surely, coming, will lessen the number of a certain order of candidates for license to practise. Doubtless, also, while the funds of special corporations will be diminished, University education will be extended; and the whole character of medicine will be changed, greatly to the advantage of its social position in the country and the interests of science and the public at large.

These principles have, from the first, influenced the Medical Council, whose efforts have been so much directed to the promotion of general education, and who, while administering an imperfect law to the best of their ability, and persevering in what they believe to be the right course, have been exposed to depreciating observations. As every one knows, the Council has no direct coercive powers in the matter of education, and I believe that, at least as yet, it is better that it should not have such powers; but I know that I speak the sentiments of the existing members of that body, whether its constitution be or be not changed, that they look to the profession at large for moral support and for counsel.

Our invitation to this metropolis of ancient and modern British thought, which, with its sister Universities of Cambridge and of Dublin, has so effectually subserved the real interests of medicine, is a graceful compliment to the Association, and an evidence that this great University will still more foster the cause of medical science.

Putting aside the success of your labours at Dublin, in a scientific point of view, your meeting of last year deserves a long remembrance. It was the first occasion on which the members of all ranks of British and Irish professional men met to know one another, to unite in the common cause of the advancement of knowledge, and to learn, on a great scale, how the mutual cultivation of science will efface national prejudices; for it is only in this way that those national dislikes and distrustings which become hereditary feelings, transmitted from one generation to another, which separate peoples and delay the peaceful federation of the world, can ever be removed. The star of knowledge, while it illuminates the path to wider and still wider discovery, yet is like unto that which guided the sages of the east to the cradle at Bethlehem; for its benignant light is the herald of peace and goodwill among men.

I now respectfully and gratefully bid you farewell, and may all good things be yours.

PRESIDENT'S ADDRESS

BY

HENRY W. ACLAND, M.D., F.R.S.,

Regius Professor of Physic in the University of Oxford;
President of the Association.

THE MEDICINE OF MODERN TIMES.

THE meeting which was held last year by your Association in Dublin, was attended by circumstances never to be forgotten. The great interest of that delightful metropolis, the fervent hospitality of our hosts, the pre-eminence of our President, bequeathed to his successor a task from which any man, however fortunately placed, might reasonably shrink. Two motives only have induced me to accept the honour most graciously offered, of following him as your President: the one, the strong desire to help in carrying on his and your work of last year; the other, the conviction (more than justified by the great kindness already shown to me) that you will only require such hearty service as it is in my power to render. To all, whether to your distinguished officers, to my valued coadjutors in this place, to those present from this or other countries, I look for a continuance of that kindness and support. Confident of this, I look forward to an useful and happy meeting, though we are shorn of some of the splendours of Dublin, and remote from the exhilarating buoyancy of Irish life.

It has been said that one chief art in a President's address is to advance no serious opinions, and to provoke no criticism. A speaker cannot, however, speak with advantage unless he express thoughts which awaken a response in the head and the heart of his hearers. The test of the success or failure of his attempt must be their approval or condemnation. Pleasant and bright as I hope our meeting will be, full as it should be of the double objects of such a gathering—the advance of our common pursuits, and the calling forth the kindly feelings of a common profession—I much mistake your wishes if you do not desire that something more than an agreeable retrospect, more also than words of hearty welcome, should occupy us for a brief space to-night.

We are living in a critical period of our country's history; in a new era in the history of man. Every part of our social fabric is now undergoing scrutiny, revision, and reform. Government, trade, institutions, laws, the artificial usages of society, the character to be given to our children by the method of their early training, are not only being criticised, but are most of them being changed—changed with unexampled rapidity; and the change is, some think, a tendency to absolute perfection, or, according to one philosopher, a last plunge down the Falls of Niagara. The facility with which ideas are communicated through the whole human family, distinguishes our age from all that precede it. Our own profession is not exempt from these influences; even if it were, we are part of the body politic, and, as wise men, we might do well to look forth from the fretted shelter of this ancient hall, itself a memorial of the ferment of the Reformation, and, watching the storm as it drifts along, take the bearing of our own course in the stream of time. The accomplished authors of the special addresses which you will hear at your general meetings, Professor Rolleston, Professor Haughton, and Dr. Gull, will bring before you abundant illustrations of the present state of three great departments of the science and the art we profess. While waiting for these addresses, and for the other more technical communications which you will hear, I propose to take a general survey of the position occupied by our professional knowledge in relation to other branches of knowledge, and to consider the objects which ought to be held in view when we discuss the temper required of us by our times, and the training proper for the formation of that character and temper. No better illustration of what is meant by medical character and temper can perhaps be found than in the words deep graven in the hearts of true physicians for a hundred generations:

ὁ καιρὸς ὀξύς ἡ δὲ πεῖρα σφαλερή· ἡ δὲ κρίσις χαλεπή.

How may every age—some more than others, but yet every age—for itself exclaim, "Yes! opportunity fleets by and is lost. Old experience is a quicksand. Sound judgment is hard, above all things." The traditions of our present resting place may well induce us to ask, in the language of this grey old aphorism: Are we losing opportunities now? Is our experience fallacious? Is not judgment in science and in art still hard? Are we attempting what cannot be done? or spurning what can even now be accomplished? What will our children's children say of us and of our day? Will they bless us for the training we gave them, and the example we set? Or will they say that our conclusions were baseless or rash, the tasks we bequeathed to them unnecessarily difficult?

Now, in judging of the medical character, we set aside, of course, all reference to individuals. We form an ideal character. And yet the ideal cannot be considered wholly in an abstract way. We have to judge of it in its relations—first to the condition of Science, and secondly to the constant properties and the variable accidents of Humanity. In the present age, science is advancing, and the means of its progress are increasing with altogether unexampled rapidity. No bounds can be set to its possible conquests. A profession dependent on science must vary with that on which it depends; and if it does not advance with the advance of science, that fact proves it to be in error. Humanity has its constant properties and its variable accidents; its constants of need of food, of warmth, and of clothing; its constants of sickness and disease; its constants of relative poverty and relative wealth; its constants of yearning after good, and exposure to misery and guilt. But humanity has also its variable accidents of climate, of fashion, of ease, of luxury, of degradation; not, like death, unavoidable and irremediable, but accidents, terrible accidents—such as, however formidable and perilous, to a certain extent may be avoided or can be remedied. Reflection will show to what a vast range of subjects medicine is linked by these two circumstances, the progress of science and the fluctuations of humanity. How numerous are the points of science which touch us more or less closely. How intimately are we bound up with the sufferings and the sorrows, physical and mental, of mankind. It is this necessary law of connection with science as a whole, and with man as a whole, which makes both the difficulty and the glory of our work in the body politic; and it is this connection which pre-eminently now, at this period of the history of our country and of human knowledge, makes a revision of our present state desirable, and indeed unavoidable.

Let us then consider, first, the relation of modern medicine to modern science. It was just now said that medicine is necessarily linked to the existing condition of science. This statement must be examined more closely. Medicine is at once in advance of the exact sciences, so called, and behind them. It is in advance of them, inasmuch as it clinically observes as facts some things which science has not yet fully explained; and it believes with strong conviction what can at present be neither demonstrated nor ignored. It is behind them, inasmuch as they claim for every fact of science an exactness to which medicine cannot always pretend. But medicine too long consented to regard itself as an art as distinguished from science. It cannot wholly fulfil its function till it asserts, and has entirely substantiated, its claim as one of the band of sciences that precisely interpret the phenomena of Nature. Now, the existing relations of pure science and medicine are both direct and indirect. In the direct relations it follows the lead of science without hesitation; in the indirect relations it cannot afford always to wait for positive instructions. Let us look for a moment at each of these relations. The relations are direct in the case of all those means of modern invention and research which are applied daily, in ways of which half a century ago there was no conception, to the discovery and the explanation of physiological and pathological phenomena. To the interpretation of sounds heard within the body, Laennec and a host of subsequent observers brought precise acoustical observation and experiment, and showed us how to map out the condition of external parts, the action of which we hear but cannot see: so that though we are not always able to say absolutely what is the nature of an abnormity, producing an abnormal phenomena, we can at least say what it is not. By applications of optical instruments Czermak and Cruise have laid open to us many organs of the body before inscrutable—the pharynx, the vocal chords, the trachea, the vagina, the uterus, the bladder; so that the actual but hidden causes of many phenomena are no longer matter of argument, but of sight and demonstration. The secrets of the eye, I need not say, are now disclosed by means of the physical contrivances of Helmholtz and others, assisted by the many elucidations contributed by our own countrymen. Allbutt and Ogle in this country, and others on the continent, are working out the further proposition that some states of the eye are not only important in themselves as local abnormities, but as being pathognomic of other suspected conditions in other and distant organs. The sense of touch is so supplemented by the skilful apparatus of Marey that the wave phenomena of the pulse and heart are registered; and thereby, through indirect but clear induction, we can fathom the secrets not only of the circulatory apparatus, but of nerve-action and nerve-lesion behind and beyond. And am I to add in this company that the very romance of zoological evolution is brought to enlarge our knowledge of the parasites that infest our bodies, modifying sanitary regulations in a remarkable manner, or that in every practitioner's hand, the microscope and the test tube answer in a moment questions once unanswerable, though on them hang issues of life and death?

It were tedious to you, and unbecoming in me, to tell of these things in detail; for they are of the alphabet of modern medicine in its everyday work. They are named only to recall in the argument a few out of many instances of the direct application of scientific appliance and method to the progress of medical knowledge by means of light, sound, and direct touch. The exploration of the nervous system by electrical agencies, by manometers and the like, through the recent labours of many, but especially of M. Duchenne de Boulogne, and the registration of changes of temperature in evidence of chemical alterations and in proof of corresponding alterations in the organism, should be cited as among the less developed but equally certain advances of physical inquiry as applied to disease. The indirect relations of medicine to the other branches of physical science are more remarkable still, but being also more remote are less familiar. Foremost it should be remembered what is the effect of the temper of modern science on modern medicine. Now it must at once be granted that opinion and authority in medicine have ceased to have any value as such, except where the authority is derived from high moral and intellectual qualities combined with large experience. But this is a personal question, like the personal equation of astronomical observers, and does not affect the framework of the art. The framework of medicine simply considered as an art now depends on accurate data, on experiment, on observation, and direct induction therefrom. But though this be true, yet medicine as an art cannot always go hand in hand with medicine as a science. The physician, with emergencies constantly before him, cannot wait to act till science has established her conclusions with absolute certainty. In so far as medicine is purely scientific it is not in harmony with the average mind of mankind; in so far as it is empirical it is at variance with pure science. Science being organised knowledge, and admitting no uncertain element, objects to the probabilities which guide the master of the art to his conclusions, and lead him to act with a promptitude incomprehensible and appalling to the uninitiated. Just as the scientific navigator, who is furnished (as every navigator ought to be) with the instincts of the empirical seaman, trusts those instincts in a gale as readily as his accurate observations in clear weather; so the true clinical physician decides first, and afterwards puts together in logical arrangement the reasons for his decision. In so far as he does this he abandons the order observed in pure science. Still he must do so in many cases if he is to act at all. If he cannot do so, he is apt to become first sceptical, then indifferent. That such scepticism and such indifference may be a real danger in the practice of medicine, and is some counterpoise to the many advantages which modern medicine may derive from her scientific character, is hardly to be doubted. This subject of medical scepticism is too grave to be here passed over without some consideration. Healthy criticism of existing belief is one thing; mere destructive criticism, with no honest purpose of getting at the truth, is another. The former is a necessary quality in a man of full power; the latter is the frequent sign of idleness in youth, and of carelessness in advanced years. What is certain in respect of medicine, critically considered as a science and as an art, may be thus stated. There is a true medicine and a false medicine. Like the wheat and the tares, they now stand together. The true is that which is based on unalterable laws of nature; the false that which is the result of ignorance, unconscious misinterpretation, or wilful error; ignorance of nature, unintentional misunderstanding of her laws, wilful falsification of facts to subserve some temporary purpose. From these two, the true and the false, come all the traditions of our art. To winnow the one from the other, to extrude the uncertain from the proved, to add to what is known, regardless of the effect on previous beliefs, is the special duty of the time in which we are now placed. If this duty were completely done we should possess the real history of an art three thousand years old. It is a history not without parallel in other departments of human thought. There was a time when the priest and the physician were one, and when the art of healing was looked on as a supernatural gift. It is so esteemed even now among savages. Cures wrought by a higher intelligence, being above the conception of the "rude untutored mind," seem emanations from the attributes "of the unknown god." The impostor priest could be also impostor physician. Trading on the weaknesses of his fellow-men, he would dogmatise on the ailments of the body and their cure, as well as on the diseases of the mind and their remedies. The destruction of such dogmas, groundless though they may be, is a slow and dangerous process, as all students of history can tell. But the time is come when every opinion and conclusion has to be sifted; and another danger has come rapidly upon us—that of reckless negation of the accumulated experience of our race. What are our fathers to us? Are we not better than they? This is with some the modern version of the well-known lamentation:—

> "Ætas parentum pejor avis tulit
> Nos nequiores, mox daturos
> Progeniem vitiosiorem."

But still in the traditions of the past there is a mass of practical wisdom. Nothing is more admirable than the caution and care—the generally scientific spirit, and often the truly scientific method, with which the best men, such as Morgagni, Sydenham, and Hunter, observed and reasoned. It is conceivable that this caution was due in great measure to the uncertainty of the ground they trod, and the want of precision in the means they possessed. We are superior to our fathers in the means at our disposal, and in the positiveness with which we can up to certain points enunciate our results. But we ought not to overlook the fact, that with these positive gains we are subject to contingent losses, and that in an epoch of details and comparatively facile methods of inquiry the great qualities of patience and reserve may be lost to those who are not themselves original investigators. With the exception implied by the above remarks, the temper of modern science indirectly rules the progress of the healing art. It is of consequence to appreciate what that temper is. It would be difficult more aptly to describe it than by the words of Newton:—"The main business of natural philosophy is to argue from phemomena without feigning hypothesis, and to deduce causes from effects, till we come to the very first cause, which is certainly not mechanical." To discuss this simple phrase, and to expand it into its full significance, would be to recapitulate the history of a great portion of modern science. There probably is no part of it to which some modern thinkers would not take exception. But it cannot fail to raise in every mind a splendid and affecting image of the boundless field of physical philosophy. It will suggest to one a countless host of loving worshippers; to another it reveals a crowd of stern inquirers ardently groping in dim cold twilight. Each in his own sphere, each tinged with the special hue of his own nature, in physics and biology, all alike are searching for a true cause. From the causes of twining in the delicate tendril to the causes of variation in the human species, from the causes and local conditions of atmospheric changes to the causes and physical consequences of the combustion of a fixed star, the biologists and physicists of the day are seeking a true cause; and, each in his way appreciated by hundreds of fellow-workers and ten thousands of more or less intelligent followers, is making a step towards the first cause which, Newton says, "is certainly not mechanical." And what have they reached? First, the conviction, clearly expressed many years ago, of the exquisite interdependence between our entire fauna and flora in the chemical circulation of matter on our globe; and next, the generalisation at once so simple, so overwhelming, that all action of which we are immediately cognisant is but the result of the operation of solar heat upon and through interdependent and correlative existences; that all things in this system are capable only of interchange; that there is no destruction of what exists; no creation of new energy. The theorem of the conservation of energy has not, as may be supposed, brought direct fruit to medicine, but indirectly it has already told in more ways than one. It makes more and more doubtful the existence of a "vital principle," controlling the ordinary laws and affinities of matter. It tends to bring the phenomena of living bodies more and more within the domain of pure physical necessity. It helps to lessen the improbability of the hypothesis of Darwin, by showing how deeply mutual correlations run into the very structure of the universe; and it increases the probability that living beings placed in similar conditions will move in similar lines, and conversely. But it explains nothing whatever of the origin of things; nothing of the nature of will. However true it may be that the solar energy was stored up myriads of ages ago in the coal-fields, however true it may be that, in the processes of vegetable life and decay, the sun's energy is constantly being first captured and then liberated for further use in other organisms, yet nothing of this emits the smallest spark of information on the *true cause* of organisation, or of the working of a single organic cell. It is clear (however careful we may be not to idolise new words) that the idea of conservation of energy must now find an entrance into every conception of organic change. We are more and more drawn to the conviction that the same result follows the same cause in similar organic conditions; and that while health consists in the regular performance of an elaborate series of physical changes, diseases properly called chemical (as opposed to mechanical or surgical diseases) follow a definite course, which we should be able to estimate if we could know all the conditions; a supposition (it may be added) which is impossible, because of the factor of will which has to be taken into account. These fundamental ideas seem at first sight to belong so little to the work of everyday life or to the practice of an art, as hardly to have any relation to them. Yet very little reflection shows how the profession, which has always assiduously pursued, indeed has been the chief promoter of, natural knowledge, cannot separate itself from the indirect, any more than from the direct influence of science, and so has to follow these apparently remote speculations. Who would suppose that the question of spontaneous generation so keenly debated from a very early period to our own year and day, need have any immediate bearing on practice? Yet see how the observations of Pasteur are connected with the questions of infection, nay more—of suppuration, and (as shown to be probable by Professor Lister) of surgical treatment. It would indeed be a great point if we could prove that no germs, carriers of disease, spontaneously originate, but must always immediately come from a progenitor cell. If so, there would be just a hope that some diseases might be effectually and finally stamped out. What we do know of zymotic diseases does not favour this expectation. At the same time, it has to be borne in mind that both the success and the failure of vaccination disclose the existence of properties which it would have been fantastic to expect, but which experiments proved to exist. What the powers of "nature" are in producing and regulating morbid products, and what the powers of man may be, is becoming every day more apparent in such inquiries as those on the relations of vaccination to syphilis, which are now being discussed by Ballard and Seaton. If we take them into consideration, together with the researches into the origin of tubercle by Villemin, Sanderson, and Wilson Fox, the inquiries into the origin of the cattle-plague, and the whole state of our knowledge of the nature of what is called infection, we have presented to us certainly one of the most remarkable series of biological and pathological investigations that has been ever recorded, and to an intelligent and cultivated person unacquainted with the state of human knowledge in respect of biology, one which must, at first, seem almost incredible. Yet any one, however little informed upon such subjects, reflecting on these few general illustrations, would admit the vastness of the subjects now comprised under the head of modern medicine; the firm basis of physical science on which it is placed; and the peculiar difficulty which it encounters as being a science complicated by an art, and that art one which is not only entangled with all the disturbing elements of progressive human society, but also an art operating on the most complicated of chemical processes, namely, the so-called vital actions. Further, he would probably say, "there are here intricate processes affecting human health, depending on actions partly physical and involuntary, partly mental and voluntary—what really are the powers by which medicine can influence them?" If such a question were proposed, the answer would be, "There are two methods by which the art must work; first, the method of pure science, with no other object but the attainment of knowledge and truth, the method which works by observation and experiment, in physics, chemistry, anatomy, and physiology, by the study of agents, and, where necessary, by vivisections; and secondly, the empirical method, or the method which attempts to cure by rules derived from tradition, probability and tentative experiment."

Now, by the first of these methods we are able to ascertain the law or course of action of the most complicated vital processes, as appears from the researches into tubercle and syphilis to which I but now allude. But this method is unable to explain the relations of phænomena in any, even the simplest organism, for it cannot be said that we at present understand the simplest vital process. This is put with much force by a great French chemist (Berthelot). 'Car nous n'en connaissons aucun d'une manière complète, puisque la connaissance parfaite de chacun d'eux exigerait celle de toutes les lois, de toutes les forces qui concourent à le produire, c'est-à-dire la connaissance parfaite de l'univers.' Still it is a great thing to see the laws or course of action of living bodies being gradually developed and laid down. We know, for instance, that a certain disease will run a certain course in a certain family. What is this but the law that living matter acts in a definite manner under definite conditions, and that when we can predicate the conditions we can predict some at least of the results? This law is of course the scientific basis of all curative medicine in individual instances, and of all preventative or state medicine in communities. The application of this law to vital as well as to inorganic phænomena strikes a blow at many ancient prejudices which assumed and sometimes fostered the notion of exceptional and erratic procedures, that is to say, of procedures for which no reason could be given. Viewed calmly, it is the ground for all hope of future progress in Therapeutics; and for this reason among others. In the present state of knowledge we are always on the verge of the most amazing results, and we do not know when or where the outcome will be. As in a siege, we advance by a series of zigzags and parallels; and these must be begun at a great distance from the fortress. While we are ignorant of the nature of some of the commonest chemical changes that we know to be going on every second of our lives in our own bodies, some enquirers are quietly but minutely discussing the chemical actions by which acid and alkaline magmas modified the constitution of the earth's crust, and gradually produced the chemical conditions which made the evolution of organisms as at present constituted, possible in our planet. And slowly but surely the siege of the fortress of knowledge advances. Latterly it has shown sign of progress in a new and unexpected direction. Chemistry which used to be chiefly analytical has now become enthusiastically synthetical. There are virtually no limits to the substances which can be made. Berthelot makes a calculation of the number of combinations with acids of certain alcohols. He says if you gave each a name, allowing a line for the name, then printed 100 lines in a page, and made volumes of 1,000 pages, and placed a million volumes in a library, you would need 14,000 libraries for your catalogue. He therefore properly calls such bodies infinite, instancing the synthetical construction of the alcohol and aldehyde series, of the organic acids, of the amides, of urea, and the millions of possible bodies which loom in the future,—certain to be made, waiting to be made, the possessors of qualities suspected but unknown. I almost hesitate to observe that bodies of this kind have important relations to the properties of the nervous system in man. Chloroform and the various amides employed by Richardson have made this familiar to all. The beautiful experiments by Bernard upon amygdalin show the question to be still more intricate and vast than Berthelot puts it in the passage already cited. It is manifest, therefore, that the possible agents for affecting the human body are infinite, and the instances which I have partially touched on of the relations of glanders, tubercle, and irritation; of syphilis and vaccination, show what might antecedently have been expected—the equally infinite problems which may be experimentally discussed and solved in the higher animal organism, problems equally affecting the classifications of Pathology and Therapeutics. Science is indebted to this Association for the example it sets in the appreciation of this vast question; and especially to Professor Rumett for the able and patient manner in which he is now conducting for it difficult researches on the action of an important remedy, the first, I hope, of a long series of such detailed and rigorous enquiries. A more useful expenditure of money can hardly be conceived. Of the second, or the Empirical method, to which I but now allude, it is not to the present purpose to speak.

Having said thus much on the relations of Modern Medicine and Modern Science, in the hope of vindicating our profession from one-sided attacks founded on the notion that it is wanting in scientific precision, I leave this light sketch of a vast subject, in order to consider the present relations of Modern Medicine to Humanity; in other words, its relations to the wants of man in the complex state of modern society. If the philosophic basis of Medicine has been changed during this century by its relations to science, its object or aim has been as much modified by its relations to Man as he is, and as he is becoming, under the exigencies of fast-growing population and the agency of a fast-improving social organisation. It would not be true to say that till modern times no great crowds of men have been densely congregated into unhealthy masses, nor to say that attention had never been given to their sanitary state. There were great armies before the Christian era; there must have been great crowding in ancient Rome; a careful and detailed sanitary code was imposed on the Jewish people at the time of the Exodus; Rome paid no small attention to sanitary works. But neither permanent populous cities nor sanitary codes were the rule. In our day on the contrary, one of the peculiarities of modern life is shown from statistics to be the tendency to increase of population in great towns: so that in England between 1841 and 1851 (Quetelet, *Bulletin de Comm. centrale de Statistique*, tom. x., 1866) there was an increase in the population of towns, of over 100,000 inhabitants, of 23 per cent.; and in the following decennial period, 1851 to 1861, there was, in France, in towns of similar magnitude, taken collectively, an increase of 50 per cent. In our day Preventive and Public Medicine has become a great branch of Medical Science. Imperfectly as yet carried out in this country, it is more fully developed in several Continental countries, and, of late in a noble manner, in the United States. It is here and there carried to great perfection, as in various departments of armies; it has made great progress also in navies and in almost every part of civil life. Still we cannot say that the evils incident to modern civilisation have been as yet met by that clear-sighted and systematic superintendence by which alone they can be subdued. It would far exceed the limits which are necessarily imposed upon me to attempt even the slightest sketch of the exact position of Sanitary Science in this kingdom. Its literature has become voluminous. Its general principles are recognised. Its need is felt. Nay, its value is by some injuriously exaggerated. What it requires now is proper administrative organisation. The admirable paper of Dr. Rumsey read last year in Dublin has been followed by not unimportant results, which will be the subject of a special Report by Dr. Stewart, and therefore need not be here discussed. It will suffice to say that we have some reason to hope that we may see the relations which ought to subsist between this department of the Science of Medicine, and the community at large, investigated systematically by a Royal Commission.

To anticipate the conclusions of such a commission would be no becoming occupation. But this may be confidently expected, that one result would be the elevation of the duties of an officer in State Medicine to that of a recognised profession, as in several special instances it has already become. At present it is not uncommon for a young man to be charged with wasting his powers if he devotes himself to improve the public health. Hereafter, charge of the public health must be made as much a matter of honourable ambition in the body politic, and must become as much an object of special education and training, as the business of any other recognised branch of the civil service. The Government will have to define the duties to be discharged by Public Health Officers or other Officers of Public Medicine, and the General Council of Medical Education will be able to direct the education of those who aspire to the performance of duties so defined. What those duties and what that education shall be, it is not our province to-day to consider. It is enough to say, that without a sound general education and without intelligent interest in the great problems that wait on dense population, viz. a fluctuating labour-market, the rights of capital and of labour, the duties of property, the principles of morality, and the nature and aims of physical, moral, and intellectual education, in other words, for what purposes the bodies of the people are to be trained, no man can discuss with safety the large questions which must be answered by State or Preventive Medicine. If he be not so prepared, he will be liable to take part unwittingly with dogmas dictated by ignorant selfishness, or unintentionally to support oppressive enactments suggested by imaginative philanthropy, in ignorance of the amount of the burdens which can in the long run be borne by the toil of a people, for the purpose of civil administration. I have not here touched on the problems arising from the condition of great towns. They are become part of the literature—I had almost said the sensational literature—of the day. The admirable Reports of Mr. Simon, under the sanction of the Privy Council, the graphic sketches by Dr. Farr in the Registrar-General's Returns, the papers by the Metropolitan Officers of Health, the Returns from Ireland by Dr. Burke, from Scotland by Professor Gairdner and others, and the paper by Dr. Morgan, have filled the public mind first with amazement, and then with alarm. Long familiar with poverty, and the sorrows and penalties and crimes which hang about it, as well as the brightness and patience which called forth the words 'Blessed be ye poor,' I had not learnt the intricacy of these problems till in the work of the Cubic Space Committee (wherein I joined the most able President of your Council) I found myself set face to face with them, and had to consider what was the significance to the State of a child

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born in the workhouse of a prostitute, brought up during childhood in the workhouse, cast forth into the purlieus of the city, becoming pregnant and returning poisoned with syphilitic sores, at an immature age to bear a syphilitic infant: nor did I see the magnitude of the problems till I found that, not in one instance but in thousands, not in one district but in many, is this process being carried on. Where and how these frightful evils can be stopped is known only to Him who can tell the causes which laid desolate whole kingdoms of Asia, and left us to wonder at the ruins of cities whose very names are unknown. But it rests upon us, more perhaps than on any other class in the community, to see to it that no remedy which can be applied, however partially, is neglected, and that no means by which the comfortable and indifferent public can be roused to appreciate the task before them shall be left unused. Still less do I presume to handle now the relation of physiological and medical knowledge to the habits of some among the higher classes—to the conditions of modern society which over-stimulate nervous action, the late hours, the exhausting effort, the wholly unhealthy existence. This is a subject which needs much tenderness and skill, and longer time than you can spare. But it is a subject on which the advancing knowledge and culture of modern medicine will have not a little to say; and which, it may be hoped, will be so said as to be heard.

There is one other relation of modern medicine which it would be improper to pass by, although it is one which an over-prudent man would instinctively avoid—its relation to spiritual beliefs. The reason why an over-prudent man would avoid all allusion to such beliefs is, that he dreads to entangle himself in the maze of angry controversy which not only surrounds, but almost fills, the ecclesiastical world—controversy, not between creeds permanently opposed, as the creeds of Buddhism, of Islam, and of Christendom, but feuds in the bosom of each separate religious system. The reason why we cannot, if we would, avoid considering our own relation to spiritual beliefs, lies in the two fundamental facts, that we are ourselves men like other men, and that we stand in a closer and more real relation to man, as man, than does any other class of the commonwealth. It has indeed been said, "Ubi tres medici, ibi duo Athei." The recent attacks by the Cardinals in the French Senate on the Faculty of Medicine show that the charge conveyed in this aphorism is not forgotten in France. Signs of the same notion are not wanting in this country. What is the fact? The fact seems to be, that the members of the medical profession are in their lives not less religious than the average of the society in which they live. As a body, they are calm, earnest men, who mingle little, perhaps too little, in the questions of the day, and seldom with violence. Religious enthusiasm is rare with them; fanaticism is generally absent; and, on the whole, it may be said that, as a profession, they stand aloof from religious discussion. Self-interest operates in some degree; usage operates to some extent; but there is a deeper reason for their standing aloof, which religious teachers would do well to lay to heart. There are none who know so much of the reality of man's nature, its phenomena, its conditions, its pains, its privileges. To the physician, the bodily nature is bared in its beauty and in its hideousness, in its formation and growth, and in its decay and dissolution. Man's relation to other living forms, his likeness or his unlikeness to irresponsible, unreasoning, or half-reasoning brutes, are vital questions to those whose minds are filled with ideas of anatomical homologies, of the relations of functions to organs, of the laws of hereditary transmission, and of the evolution of mental attributes as well as of corporeal organisation in the animal series. The physician sees in the body of man the material structure by which alone the known operations of the mind of man are possible in this world, the organs by which alone he can work his earthly work, whether it be the work which he shares in common with the beasts of the field, or the work through which he can enter into conscious relation to his unapproachable Creator: the frame by which, while bound down in an earthly charnel-house, he lifts his eyes and strains his heart with yearning ineffable towards a higher nature, and obeys the upward-tending impulses of affections strong unto death, affections so pure and so divine as to lose in the love of others even the consciousness of self. All this, and much more, our profession sees as phenomena. It knows that "the child is the father of the man;" that "the sins of the fathers are visited upon the children to the third and fourth generation;" that man, though in one sense "lower than the beasts which perish," is yet "the paragon of animals, in apprehension how like a god, in action how like an angel." These, and all the contrasts which poets and preachers paint, are present to us under all phases, in every circumstance of race and creed, of temptation caused either by want or by luxury and power, or temperament engendered by any of these conditions, modifying, as you all know, both disease and the remedies it requires. I forbear from enlarging on this difficult and perilous topic here; but I shall have to recur to it briefly under the last head of my address. It need only now be said, that the connexion which medical men must have with the future culture of the country is becoming more and more intimate. The general public, heretofore indifferent to physical science, are daily becoming more alive to its importance, inasmuch as they are in many instances themselves scientific, and judges of those who are so.

If these, then, be the relations of medicine to science and to the bodily wants and the mental condition of man, and such the character of the physician, what is to be the preparation for his duties? There is no better answer than this of Strabo: Ἡ δὲ [ἀρετὴ] ποιητοῦ συνέζευκται τῇ τοῦ ἀνθρώπου· καὶ οὐχ οἷόν τε ἀγαθὸν γενέσθαι ποιητὴν μὴ πρότερον γενηθέντα ἄνδρα ἀγαθόν. "The value of a poet is bound up with that of the man. He cannot be a good poet who is not a good man." On which Joseph Henry Green, who quotes the passage, says: "I anticipate no objection when I state that the process for attaining or approximating to this great moral result constitutes, in its scope or end, *a liberal education.*" What that is, and how to be attained, is held by all thinking men to be one of the problems which our age has to solve, in and for the interests of our country. May not grave mistake arise herein? At all events, in the present transitional condition of this and other questions of social economy, it were a waste of time for an Association such as ours to undertake the investigation of this difficult subject. But so far may be said, that the object of academical education for *our* profession is *from early life to discipline all the faculties.* It is obvious that the physician should be many-sided: he should be capable of sympathy with every form of good; he should have all his senses, eye, touch, hearing, disciplined to nice precision and exactness both in perception and thought. When a man says there is, in the present age of the world, only one education worth possessing, the education provided by "the scientific method", he seems to have forgotten the more genial parts of our nature, the relations of man to man; and the more tender parts of our nature, sympathy with goodness, imagination, generosity, devotion. Are not these essential to the highest success in our profession, quite as much as the intellectual efforts of the more specially scientific observer? We may take one instance—the bearing of the so-called Fine Arts on the development of certain qualities of mind. It is not on account of the accuracy which is required for their successful cultivation, for that belongs more or less to all scientific work. No youth can be a draughtsman or a musician to any good purpose without this; but music and drawing not only discipline the sense of sight, touch, and ear in an eminent degree, but have a peculiar effect on the imagination and intellect. There is a refinement of observation and a tact acquired by the study of masters of music, architecture, painting, and sculpture, which add a charm to the life and character of a man, whatever be his profession, such as is hardly attainable in any other way. Not, of course, that I would wish all men to be so educated as if they were to be artists or musicians. Mathematics are valuable to train the mind to habits of accurate thought. The mathematics may be forgotten, may vanish in all their details; but the accuracy and precision given by their study may remain. So the practical dexterity of the eye and hand and ear in drawing and in music may be lost; but the delicate perception of form and colour and the relations of colour, of sound and the relations of sound, and the effect produced upon the mind by the study and cultivation of the arts therewith connected, may remain, and tinge with a higher character the whole nature of the man. The development in excess of one part of our nature distorts the harmony of that nature. Many properties, which in excess are noxious, are, when held in subordination, ennobling. It would be out of place, I repeat, to attempt a full analysis of this educational question. It is, indeed, here entered upon simply by way of protest against the view that accurate science can do all that is needed for training the medical student. Of all men, allow me to repeat, he most needs the harmonious development of all the good qualities of his nature, with "scientific accuracy" and method at the root. In the present period of our history, I might say in the history of the human family, the principles which should regulate the training of our children have to be discussed with largeness of view, and carried out with extreme caution. There is no part of a statesman's duty just now for which he is more gravely responsible than that of preparing the children of the nation for the struggle, intellectual, religious, and material, which is certainly in store for them; there is no greater political treachery than that a statesman should pander to popular clamour by joining any temporary educational cry which he does not believe to be founded on permanent truths of morality.

It would be tresspassing too much on your good-nature to ask you to listen to the proofs that an acquaintance with the mental constitution of man, of those ways of ennobling its impulses, and of that mixed knowledge and discipline, which are called religion, is more especially necessary for our profession. I therefore assume that you generally consider every scheme of preliminary education faulty which does not admit this, and will only state briefly what present circumstances seem to require of caution under that admission. Granted that, for the intellectual training of a medical man, religious discipline and psychological knowledge are required, how are they to be imparted? and of what kind should they be? If those who have investigated the subject were agreed as to the nature and origin of human families; if the unity of our race were conceded; if there were no variations in character dependent on family and inheritance; if there were no questions as to the future state, nor disputes concerning our relation to the Infinite; if no questions had arisen within the pale of Christendom as to the scheme of redemption, nor outside that pale as to the evidence of that Christian faith,—then, indeed, the student preparing for medicine would find some definite course of mental philosophy and religious instruction in all colleges from San Francisco to Calcutta. Till that day of united conviction arrive, we must be content to take some general position that all can accept. Nor is this difficult. All will agree that we must, first, study the phenomena of human nature as now known to us, without regard to the origin of man; and, secondly, study the principles of laws which ought to regulate the will and affections of man for the good of himself and society—in other words, the principles of universal morality. Nothing less than this is necessary for the youth who are to follow our profession; nothing more can we now enforce. We have in England to educate for the empire—that is to say, for persons of every creed. Our education as physicians cannot in this respect be limited by any one form of religious belief; and, however much I may deplore, in the pathetic words of Faraday, "The people will go astray when they have this blessed book to guide them," we cannot deny that, under existing circumstances, the results of mental science, deduced from every source, must be to some extent made part of the higher education of our profession, without any regard to the bearing they may be supposed to have upon commonly accepted religious opinion.

The reason is a practical one and plain. It is our business to deal with the characters of men, to observe the action and reaction respectively of body and mind, to trace out how character is affected by physical alterations in the brain; how this may be modified by physical means, by discipline, by food, by the physiological agents called drugs. And our youth must and will follow the researches which are made in these several directions. It will be useless to denounce the inquiries which tend to explain the relations between thought and material organisation. That bundle (as it were) of qualities, good and evil, which we call mind, does, as far as we know, require for its manifestation the continuity and integrity of a complex organisation. That organisation varies with the qualities which are exhibited. The mental organisation of animals inferior to man is as various as their bodily structure. In truth, we have as good right to call the bodily organisation the material part made for the action of mind, as the mind the consequence of the bodily organisation. The distinctive properties of the mind of man furnish the most notable illustration of the origin of force. The absence of any one of these powers, and especially of the will, shows the greatness of their presence. There are phenomena such as those of aphasia, such as the innumerable facts of pathological analysis observed in the insane, such as the remarkable results obtained by the researches of Claude Bernard, which become part of the common stock of knowledge, and must find their place in any theory of humanity which is to claim an acknowledgment from the intelligent physiologist of the future. This deep, this profoundly interesting subject might be pursued to great length; it is commended to your serious attention with these words of Bacon:—"All depends on keeping the eye steadily fixed upon the facts of nature, and so seeing their images simply as they are. For God forbid that we should give out a dream of our own imagination for a pattern of the world. Rather may He graciously grant us a true vision of the footsteps of the Creator imprinted on His creatures.—*Nov. Org.*, pr. 1. Very meet it is, therefore, that we be sober-minded, and give to faith that only which is faith's."—*Nov. Org.* 65."

It is not to be desired that we should part to-night without some interchange of thought on the relation of this University as a place of national education to the topics we have been considering. The functions of an University have lately been clearly stated by Mr. Mill in his Address at St. Andrew's. His statements coincide with those repeatedly expressed in this place by the best thinkers on the subject. His opinion is of special value, as no one will suspect him of too great leaning towards ancient studies, or the gentler parts of human culture. He says: "The proper function of an University in national education is tolerably well understood. At least, there is a tolerably general agreement about what an University is not. It is not a place of professional education. Universities are not intended to teach the knowledge required to fit men for some special mode of gaining their livelihood. Their object is not to make skilful lawyers, or physicians, or engineers, but capable and cultivated human beings......What professional men should carry away with them from an University, is not professional knowledge, but that which would direct the use of their professional knowledge, and bring the light of general culture to illuminate the technicalities of a special pursuit." He reviews the several parts of human knowledge by which this function is to be performed. For my own part, I know nothing apparently so damaging to the reputation of the study of classics as a means of forming completeness of character, as its active antipathy in former years to the cultivation of science, and its passive indifference to the promotion of art. As long as this temper existed, it implied an ignorance of both, and, as respects art, a narrow appreciation of the true domain of literature. The causes of this temper need not be discussed by us; we are not the persons to do it in this place. The causes do not lie entirely in the effect of classical training, but in the narrowing tendency of exclusive devotion to one class of pursuits in a limited society. It was addition to the old studies, not substitution, that was needed. The addition is in the course of being made. May the substitution be averted. Your assembly in this hall is a proof of the fact of the addition. This meeting is a testimony, if any were needed, that these ancient foundations are opened to the professions, opened on conviction and with hearty goodwill; the union of the ancient thought with modern method will be effected in this place. Yet we may ask why the professions should be welcomed by the University? why this union should be desired by them? The answer is plain. Not through the guidance of the people by a few superior minds, not through the laying down rules of fashion by concurrence, not through the dogmas of authority by compulsion, but by the culture of practical life, by the moral elevation of the working people of every class, are the great traditions of this country to be maintained. Not by peers, nor commons, nor ecclesiastics, nor artisans, as such, nor by all combined; but by love of knowledge, of truth, and of uprightness; by a wide view of the needs of man, religious, moral, material; by a small estimate of our own powers, but by a large one of our duties; by a just sense of the narrow field to which our own vision is limited, and of the shortness of the time during which to each of us that vision shall last; by all these qualities uniformly diffused according to the capacity each may have, are peers, commons, ecclesiastics, artisans, to keep alive the force of their common country. And, if these thoughts seem to belong to the arena of the political world, and not to the shady recesses of a scientific assembly, remember that if your young men who are to be engaged in professional life, if the sons of your commercial men come hither, you will find their characters tempered through life by the processes to which they have been submitted. If they find here the traditions and the practice of general culture, of love of good, of pursuit of all knowledge, pure or applied; if they learn precision when precision is needed, method when method; if they are taught to indulge imagination where only imagination avails, fancy where only fancy; if they see us here resisting authority when there should be inquiry, and bowing humbly before that which is not for man to know, not ashamed of reverence and hope, nor afraid of faith; if here they may learn to be industrious and contented, and manly and of tender heart—then the profession may send their youth to a place the country has reason warmly to cherish, if not wholly to approve.

I know nothing more hopeful than the prospect before us. Those who control the fate of this city of a thousand years can still say that the religious basis of the place is not yet undermined by levity, nor suffering from the dry-rot of unfounded assertions; that science is daily enlarging its borders by the addition of new institutions and new men, and that art is asserting its just claims; so that those who desire to see the youth of England possessed of great opportunities may yet find them here.

One word more and I have done. The picture I have drawn is not intended to describe what is to be sought, or what is to be had in this or the other place of education, but what is to be sought in all. What we may aim at here we wish others to attain. If they be first, then we will follow; if they be last, we hope that our speed may quicken with their advancing tread. You will perceive, I doubt not, that I address you not as an Oxford man, but as President of your Association when it visits Oxford. While you are here I have not the functions of host. As your representative I have asked freely for what you seemed to desire, and in your name I thank those who have granted it. In the name of your Oxford friends, and as official head of the ancient and honourable Faculty of Medicine in her University, I heartily welcome you to whatever in the lotus-growing, stagnant depth of the long vacation you may find still living here. You bring your own life, from England, Scotland, and Ireland, from the United States, France, and Germany. Live it among us. And in exchange for our welcome to the banks of the Isis give us your thoughts and your counsels, to the end that we may all return refreshed and strengthened to our common and happy toil.

DR. OSCAR CLAYTON has been appointed Surgeon in Ordinary to His Royal Highness the Duke of Edinburgh.

OF THE
UNIVERSITY OF ILLIN

ADDRESS IN MEDICINE

BY

WILLIAM W. GULL, M.D.Lond., D.C.L.Oxon.,
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to Guy's Hospital.

MR. PRESIDENT AND GENTLEMEN,—I deeply feel the honour and responsibility which you have put upon me, by placing me here to-day as your exponent of the present position of Clinical Medicine. My task is difficult, from the distinguished character of my audience, and from the imperfections of our knowledge in the subject of which I have to speak. I feel, indeed, as one about to undergo the ordeal by fire, the difficulty and delicacy of my task being so great, that I dare not hope to escape adverse criticism.

You have been listening to learned discourses on the physics and physiology of living things, wherein the learned lecturers have been able to instruct and satisfy the mind with details more or less capable of demonstration; whilst I have to admit that my subject lies on the confines of human knowledge, and that too often the highest effort of the clinical student is to arrive at some feeble probability, in the presence of uncertain, or even delusive, evidence.

Clinical Medicine, though a special department of knowledge, is so intimately connected with other sciences, that, when the claims of these are satisfied, it might seem that nothing would remain to it. This appears to me the present error of our schools. It would not, however, be too much to assert that, were it possible to conjoin in one human intelligence all that is now known of other sciences, such knowledge would be compatible with entire ignorance of the department of clinical medicine. As the physiologist must yet assert, that the phenomena of living tissues are not explained by their chemical composition, or, as the chemist himself has equally to admit, that mere isomerism may be no clue to chemical qualities, so the clinical physician knows that the phenomena of disease are not explained by the knowledge of healthy textures, nor by the actions of healthy organs. Clinical work is a work by itself; and yet, if I may use the comparison, only so far by itself as one form of organic life may be considered separate from another. It stands apart, but has the most intimate relations to all that surrounds it. It is elucidated by the light of physics, chemistry, and physiology, yet is not comprehended by them as they now stand. In ages gone by, Hippocrates had to vindicate the study of disease from the inroads of superstition; at the present day, we have to guard it against assaults on the side of science, and need to watch lest we betray it by accepting a too chemical or physical limit to our thoughts.

We should all contemplate with great satisfaction such inroads of the collateral sciences upon medicine, as that at length medicine might have no separate existence; but this consummation appears to be, as yet, far distant, and must be so acknowledged. Happily, such is the extension of the human mind into Nature, that almost daily new regions are discovered; and the boundaries of the old are so extended as to require fresh subdivisions in order to bring them within the domain of thought. Formerly, the physician might have been able to comprehend all that then constituted the allied sciences of medicine; but that can never again be possible. His duty lies, therefore, in giving an exact and scientific character to the department which remains to him:—to investigate its phenomena, with that concentration which is necessary in every physical inquiry, and with all those aids which are afforded in increasing perfection by modern science.

It is not, however, to be overlooked, that even Science herself is apt to have her moments of dogmatism, and, by throwing the light of some particular inquiry full in our eyes, to blind us for the time to that which lies beyond. How often has medicine been thus diverted from her difficult path. A discovery in physics has made us for the moment no more than galvanic batteries, or a discovery in chemistry at another mere oxidising machines. To-day, however, we go to bedside work untrammeled by any exclusive theories of this kind, ready to investigate disease in every way that investigation is yet possible, and forming our judgment in no narrow spirit of a foregone conclusion. We have no system to satisfy; no dogmatic opinions to enforce. We have no ignorance to cloak, for we confess it; but we have to bring into the court of inquiry all possible evidence, and to decide upon it by the light of science and experience. They whose work lies more open to experiment and demonstration are apt to forget the difficulties we have to encounter, and the mental labour required in dealing with them with any measure of success. They would have us postpone these difficulties to a more convenient season, until, by the advancement of other branches of science, they could be undertaken with less risk of failure.

However gratifying and proper this might be, were the end of our knowledge contemplation only, and were there no motives to present action, yet, as we are in the midst of human suffering, and have some knowledge for its relief, it is plainly the duty of some, and worthy of the highest intellects, to apply themselves to this work, even though by so doing they may forego the immediate rewards which pure science so liberally affords.

Whilst thus asking for the unstinted recognition of clinical medicine as a scientific department, I am not forgetful of the obligations imposed upon us, nor that in it there lie problems, as yet, far beyond a scientific solution. No one can hope, even as the sciences now stand, and much less as they shall further advance, to obtain a foremost knowledge of them and of medicine at the same time. Yet such knowledge is to us of daily necessity. We must, therefore, refer our physiological difficulties to the physiologist, and our chemical questions to the chemist, and still admit that there remains an unlimited area of study for us, in tracing the causes and relations, and in recognising the presence of disease. I would not be understood to say that the physician should neglect the sciences of chemistry and biology, and devote himself to the limited study of morbid phenomena. If any should desire to do so, the attempt would prove its impossibility. The interchangeable relations of things are such as to make necessary the most discursive operation of the mind, if it would successfully inquire into that which is most special. I desire only that that which is our proper work should have our entire energies, strengthened and directed by every collateral aid.

Whilst the biologist traces downwards the relations of the various forms of living things, and breaking away, one by one, the barriers of separation between them, at length views them all as springing from a common germ, the student of clinical medicine, working in another direction, seeks opposite results. To him, one form of life absorbs and centralises all other forms. His object is to see the facts of human organisation in their most special relations. The very perfection of his work lies in this. It is not even man in general, it is the individual man, upon whom his attention has to concentrate. The stock from whence he may have sprung, the circumstances of his birth, the time he may have lived, the diseases he may have undergone, the habits he may have acquired, are all subjects to be brought into the focus of thought at the bedside, and made to clear up the problem of disease.

Medicine is a specialism, but of no narrow kind. We have to dissect nature, which, for practice, is better than to abstract it.* Every form of life has to us a value, but in an order the reverse of the generalisations of natural history. We desire to know what limits, and specialises, and perverts. We study in order to distinguish, and not to classify.

Yet it is not the individual only that we have to isolate for the purposes of clinical study; we have further to inquire into the life of his several organs and tissues. These have each their own life, and, correlative with it, their own tendency to disease, and their specific power and mode of repair. To clinical medicine, therefore, the body becomes a pathological museum. In every part we recognise certain proclivities to morbid action; and the purpose of our study is to trace these tendencies to their source on the one hand, and to their effects on the other. Histology and anatomy are daily widening this fundamental department of medicine; and we may be sanguine that an acquaintance with the morbid changes to which the same parts are liable, where present in the lower animals (comparative pathology), will afford further valuable aid, as by it we shall have in some degree a dynamic test of the general tendency to these morbid states, in addition to that furnished by human pathology. A knowledge of these intrinsic tendencies to pathological change in the several organs prepares us beforehand to recognise their occurrence where, without such knowledge, the signs and symptoms which are present would convey no information. To know, for instance, that the brain, from the early period of adult age, in persons otherwise healthy, is prone, without obvious exciting cause, to the formation of tumour in its substance—to be aware of the probability of insidious *ramollissement* of the central commissures in younger subjects—often enables us to suspect these conditions, and to give weight to what might otherwise seem some unimportant ailment. As I name these two instances, I feel sure your clinical reminiscences will supply the proof of what I state, and read a sad page of suffering, death, and error.

There would appear to be some textures of the body endowed with an almost complete immunity from disease, whilst others are equally liable to it—a difference of which at present we cannot give a sufficient account. Both stand as glaring instances to warn us against the adoption of some of our current theories. There is, perhaps, no part of the body organised for more rapid cell-life, or that is more extensive or more vascular, than the mucous membrane of the jejunum; yet, with the exception of the choleraic and diphtheritic processes, it is almost exempt from primary organic changes—so much so that at the bedside, in considering the probabilities of disease in the abdomen, we have, on the one hand, to exclude this part from our consideration (except in mechanical obstruction), and as necessarily to direct special attention to certain seats of lesion from whence the trouble is likely to have sprung. Contrast the limited area presented by the lesser curvature and pyloric region of the stomach, the duodenum, cæcum, and rectum, with the enormous extent of the valvulæ conniventes, and compare the frequency and character of the lesions in the one with those of the others, taken together, and it is obvious how much our diagnosis of abdominal disease depends upon our acquaintance with the tendency of certain textures in the abdomen to morbid changes.

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* Melius autem est naturam secare quam abstrahere.—Bacon, *Novum Organum.*

The investigations of morbid anatomy have thrown a flood of light upon the so-called acute idiopathic diseases. Formerly, they were supposed to be of common occurrence; and the treatment of the day was adapted to their apparent violence. But how rarely now do we meet with a case of acute inflammation of the membranes of the brain, or of the peritoneum, or, indeed, of any other texture, which we cannot refer to some chronic lesion, or to some distinct cachexia; the only idiopathic part of the case being that which was formerly overlooked or unrecognised—some chronic tissue-change, unnoticed in the storm of acute disease to which it may have given rise.

Oken has said that all the tissues are nervous, and bone is hardened nerve. I shall not discuss this assertion on the present occasion; but, no doubt, modern physiology and pathology are advancing the evidence that whatever is living has nerve-quality in it. The highest expression of this quality is conscious intelligence; the lowest is, from the nature of the case, at present impossible to mark. This much, however, it appears important to recognise clinically: that morbid brain-force may give rise to a variety of disorders, apparently distinct from their original cause. There is a neuro-pathology from the brain to the tissues, as there is a reverse order of disturbance from the tissues to the brain. If we trace the history of morbid brain-force through the various members of a family, we shall often recognise a great variety of related phenomena, which, in nosological classification, are separated and considered as distinct. The intellectual disturbance in one, may appear as epilepsy in a second; as mere dyspepsia and so-called acidity in a third; in a fourth, as some peculiar neuralgia; in a fifth, if a female, in many varieties of capillary disturbance, as amenorrhœa, vicarious menstruation, hæmatemesis, or even hæmoptysis; in a sixth, some part of the intestinal tract, the colon chiefly, may appear to be the recipient of the morbid nerve-process, and the patient be tortured with the fears of a tumour. And a tumour, indeed, there may be, though a mere phantom, yet calculated to mislead the unwary. Nor does this list exhaust the catalogue of these strange vagaries. It would seem as if sometimes this morbid brain-action expended itself upon the voluntary muscles, which, if of the abdomen, may be shaped into forms that defy diagnosis and bewilder the most cautious.

It might be thought unnecessary for me to point to this strange field of pathology, which has long been recognised as in part connected with hysteria, but I have reason to think our views on the subject are still wanting in distinctness, and that the term hysteria, as now understood, does not include all I here intend. These morbid conditions occur as essentially, if not so frequently, in the male as in the female, though the form of them may be determined by the sex. As if, in different individuals, different portions of grey matter were the seat of the same kind of morbid action; the equivalent of mental disorder in one, occurring as colon disorder in another, and so on. And besides these mere functional disturbances, the history of medicine, and my own individual experience, supply instances of actual tissue changes which admit of no explanation until thus looked at; and, I need not add, such cases are entirely distinct from feigned and fictitious disorders.

The flatulent dyspepsia of the student, the tears of the distressed, the dry mouth of the anxious, and the jaundice of fright, daily remind us how far the cerebral influence extends, and physiology will hereafter teach us to trace the steps whereby these effects are produced. As there is no explanation of laughter when the axillary nerves are tickled, so there seems to be none of the morbid fears which oppress those who are the subjects of some affections of the colon, and who weary our patience with their doleful complaints. Yet surely we have no more ground to deny the reality of the one, than of the other; though we must at present refer both to some ultimate fact of our natural history. "As face answereth to face" by mysterious sympathy, so do these and other peripheral impressions excite or depress, in an equally mysterious way, the subjects of them.

I cannot turn from this hasty glance at the idiopathic pathology of the tissues without mentioning how much clinical medicine has gained by recognising the relations of the tissues to time. The wise man says, "There is a time to be born, and a time to die." What the physiological limit of the latter may be, has not been determined; but at the bedside, its presence has often to be recognised and to be distinguished from that of removable or remediable disease.

Abercrombie was amongst the first to point out that the paralytic affections of age were due to senile changes in the tissues; and more recently, the convulsive affections of otherwise healthy, but aged people, have been included in the same category. The epileptic attack of the old man is an evidence of failing power, as his paralytic seizure is an evidence of failing tissue. Though the actively growing organs of the child contrast in a striking manner with the same in decay in the old, there is yet, in some respects, a similarity between the diseases of the two periods of life, like the tints of the rising and the setting sun. In the first period, the organism has not acquired its forces; in the latter period, it is losing them. Infantile convulsions, and senile convulsions; infantile diarrhœa, and senile diarrhœa; infantile eczema, and senile eczema; uric acid deposits in childhood, and uric acid deposits in age, may afford illustration of the truth of my statement.

Time, moreover, acting differently upon different parts of our organism, often performs a kind of pathological dissection, exposing the inherent weakness of entire organs, or parts of them, and giving rise to diseases, for which at present we have often no name, but that which designates some prominent symptom. This process of decay, due to time only, occurs at almost every period of life, according to the constitution of the individual. The fatty degeneration of muscular fibre, occurring in the children of certain families, affords such an illustration, and we have yet more striking ones in the progressive muscular atrophy, which occasionally exhibits itself from primary changes in the nervous system, in equally young subjects. Senile changes may thus occur in childhood, as the ephemera is born but for the day. My thoughts have been specially directed to this subject of late, whilst passing in review the facts of locomotive ataxia. The condition of the nervous system which most commonly gives rise to this form of unsteadiness of gait, is plainly one of decay, like baldness, or greyness, or the occurrence of the Arcus senilis. It occurs to individuals of particular families, in which other forms of nerve-degeneration are prevalent. It happens to be limited almost entirely to males, at the middle or after the middle period of life; and if we may venture to draw general conclusions from the few observations that have been made *post mortem*, is connected with fatty degeneration of the posterior columns of the cord; not, however, limited to these, but associated with changes of the like kind in other parts of the cord, and in the brain itself.

My friends Mr. Lockhart Clarke, and Dr. Hughlings Jackson, endorse the opinion first put forward by Duchenne, and subsequently maintained by Trousseau, that this locomotive ataxia is due to disease of the spinal marrow only; but I am disposed to think that they arrived at this opinion against clinical evidence, and partly biassed, though unconsciously, by the way we were first taught to dissect, and think about the nervous system.

It is only fair to English pathologists here to state, that this form of disease has long been known to them. Matthew Baillie regarded it as the most common form of paraplegia, and had an anatomical explanation of its peculiarities, which, though certainly not applicable, proves that, with his usual acumen, he had investigated its *post mortem* anatomy. His theory was that the malady arose from a morbid effusion of cerebro-spinal fluid, which, when the patient was erect, gravitated into the lower part of the theca vertebralis, and, by pressing upon the cord, rendered the patient unable to steady his movements; whilst, from the same cause, these became free again when he was placed in a recumbent position. I quoted these observations of Baillie in the year 1849, and took occasion then to call the malady encephalic paraplegia. It is probable that this was too restricted a term, as is that of locomotive ataxia, and that in our consideration of the special disease, we must recognise a general diminution of nervous power from failing nutrition, as well as special lines of more unequivocal decay, most marked in the posterior columns of the cord. In support of this opinion, I may state that ataxia alone occurred but three times in fifty cases referred to by Trousseau. Notwithstanding this, he draws the characters of the disease which he would typify from the three cases, and not from the forty-seven others in which there was evidently disease of parts of the brain, as of the cord. If, however, all that has yet been done, still leaves the question of the lesion occasioning this form of paralysis in dispute, one suggestive fact remains; namely, the singular isolation of the posterior columns of the cord by the degenerative process. This fact appears to indicate that the affected structures have their own vitality, and probably, therefore, a separate function from that of adjacent parts. Todd maintained this separate function on other grounds, and concluded that the posterior columns were merely commissures. This theory seems the more probable from the facts now alluded to, inasmuch as textures having such a function, may have a lower vitality than others which are more essential. This supposition is strengthened by what is observed under extreme inanition, it having been proved by the well known experiments of Chossat, that the nervous centres resist atrophy more than other tissues. Related to these intrinsic morbid changes, whether local or general, are the cancerous and tubercular affections, and the universal liability of the tissues to that perverted process of nutrition which we call inflammation. Although, for practical purposes, it is convenient to intensify the differences between cancer, tubercle, and the inflammatory process, we have abundant evidence of intimate relations between them. Thus, the children of parents dying of cancer are not rarely tubercular, and those of the third generation are liable to various forms of chronic inflammation; whilst in the same families are healthy individuals, in whom we can discover no evidence of any special morbid tendency. It is not improbable that that which seems most special to us in cancer and tubercle, may depend more upon gradation than change of diathesis, and that both are allied to more common degenerations.

In tubercular phthisis, this has long been felt and acknowledged. Those who have given most attention to the subject (and I could name no one whose experience would have more weight than that of the late Dr. Addison), have had to confess that the larger their observation, the greater became their difficulty in drawing a line of demarcation, limiting tuberculous from simply inflammatory productions. No doubt many of the errors of prognosis in phthisis, some wilful, some unwitting, arose from assuming a distinction which does not exist, except in extreme cases where, as the logicians would say, the quantum passes into the quale. Although it has been observed that the scrofulous diathesis of early life may show its special characters in age, still we have, on the other side, frequent proof of a change of diathesis to that which is malignant; and your experience will, I am sure, confirm my statement, that the tubercular peritonitis of childhood corresponds with great strictness to the cancerous peritonitis of age. It is probable that cancer is nearer to the simple degradation of tissues than tubercle. It appears to be more independent of an external exciting cause; and, although in its structure there is an appearance of vital activity, it has no correlation with healthy organic processes, but is a mere eddying off and separation from the organic cycle. A closer inquiry into the local origin of cancer, and of the mode whereby the system becomes infected by it, are yet desiderata. The tendency to infect the body generally may after all not be dependent upon a more marked cancerous diathesis, but upon local circumstances only. Something analogous appears to exist in the infecting and non-infecting chancre; for though, according to some authorities, one is essentially local, and one as essentially infecting, yet it appears certain that even the infecting kind has not always the same infecting power.

In passing from these idiopathic or intrinsic morbid conditions to such as arise from accident or *ab extrâ*, the fevers chiefly claim our notice. In the elucidation of these, small-pox stands for first consideration; since, through vaccination, we have it clearly demonstrated, at least for this one form of fever, and it seems but fair to infer the same of others, that recovery and subsequent immunity are produced by a process of impregnation and assimilation, and not, as was early believed, and is still by some maintained, of elimination. The old theory of depuration, though true of gross chemical poisons, as lead, or mercury, or arsenic, appears to have no application to those operations which take place in the body, in contagious diseases, as the effect of organic poisons. After any one of these, the organism is not restored to its former condition, as if any poison had simply been cast out; but there is notoriously a residual and permanent effect, which has been induced under the superficial disorder; this effect being shown by permanent indisposition to a repetition of the same morbid process. Unfortunately for science, the phenomena of fermentation have been assumed in explanation of what takes place under these circumstances; and by the theory of zymosis we are carried back to the days of ignorance, when concoction and maturation were made to explain whatever was obscure. We discover, however, at the bedside, nothing in the phenomena of febrile disease proper to zymosis. As well might we call the evolution of the germ after impregnation by such a name. The physiological disturbances induced by any one of the fever-poisons—namely, the excess of heat, the rapid waste, the quick action of the heart, the altered functions of secretion and excretion, etc., the so-called symptoms of the disease—are but the outward effects common to the class, and only so far peculiar to each as they may vary in time and intensity. That which really constitutes the specific character of each is the attendant tissue-change, which, when completed according to the special poison, is followed by convalescence.

If this be in any degree an approach to a true conception of these diseases, it follows that the object of medicine must be rather to limit the violence of attendant symptoms, than, with our present knowledge of therapeutics, to aim at arresting or neutralising their specific processes. Had any one formerly been asked the remedy for small-pox, he would hardly have seriously supposed the answer to be the poison of small-pox itself. Yet so it has proved; and from this experience we have learnt that help may come precisely in the opposite direction to that looked for in our theories, and we obtain a striking proof of the truth of Bacon's aphorism, "Natura non nisi parendo vincitur."

Yet, notwithstanding this teaching, pathology still persists in looking in another direction; and therapeutics are governed by the idea that disease is an entity which must be combated and cast out. I fancy that the habit of calling these and similar affections blood-diseases insensibly fosters the idea of depuration. Now, though I am not disposed to stir up a discussion between *solidism* and *humoralism*, I cannot but express my conviction that the susceptibility to the various contagious fevers no way lies in the blood, except so far as this may be a channel through which the poisons reach the tissues; and that it is in these, and especially in the nervous tissues, that the true fever-processes begin and end. The facts of habit, such as that of taking opium or using tobacco, the facts of acclimatisation, and of the commoner experience of our daily life, whereby the nervous system becomes accustomed and indifferent to continued sources of irritation, render such an opinion the more probable; and a confirmation of it is gained by that enduring effect which ensures against a repetition of morbid actions.

Were I to give liberty to my imagination, I might perhaps trace here a much more extensive law of our nervous organisation, whereby that which is new excites, and that which is old becomes indifferent. For my own part, the views which have been put forth as to syphilisation have, on these grounds, seemed to deserve the fullest consideration; and, though I have not experience to set against the adverse conclusions of some who have made the subject a matter of experimental inquiry, I feel that we cannot set aside the more extensive experience of those who have asserted its success.

I cannot conclude these general remarks on some difficulties which now occupy our minds in respect to pathology without alluding to the vexed question of rheumatic fever. Is this state due, or is it not, to a *materies morbi?* Further, have we any grounds for assuming that such *materies morbi* is lactic or acetic acid? I put these questions thus explicitly, because it seems to have been settled, upon mere authority, that they may both be answered in the affirmative. I say authority alone, not forgetting the experiments which have been made on animals in proof of this theory, since such experiments appear to me to prove only this, that the acids named, entering the blood, may cause endocarditis and some other pathological changes simulating those of rheumatism; but I cannot recognise in them the rheumatic state, as I am acquainted with it at the bedside. There are, so far as I know, no analyses of the blood in rheumatism which show that it differs from normal blood in respect of its acidity. The theory of an acid *materies morbi* appears to be supported chiefly upon the excessively acid secretion of the skin in this disease, and the increased acidity of the urine. But neither of these can be considered in any degree characteristic; for not only in the worst forms of the rheumatic process is the secretion of the skin not acid, but alkaline, but in conditions of the system totally dissimilar from rheumatism, as, for instance, in phlebitis, and especially in that form following injuries to the head, as well as in arterial embolism, we often meet with excessive acid sweating, misleading to a false diagnosis those who believe this to be characteristic of rheumatism. Notoriously, a proper function of the skin is to secrete, and probably to form in itself, lactic and acetic acid. Under different kinds of irritation, this becomes excessive; but I know of no facts to show that this excess indicates a special pathology, or may be regarded as a salutary process, whereby the system is relieved of a *materies morbi*. In so supposing it, we seem to be misled by the same fallacies as, before the time of Sydenham, misled practitioners in the treatment of eruptive diseases. I confess to a strong sympathy with those errors; and, though my reason is convinced that they were errors of the most dangerous kind, I cannot but excuse them, and admire the genius and courage of Sydenham, which enabled him to detect and correct them.

If, failing the evidence of the cutaneous secretion, the rheumatologist adduces proof of an acid diathesis from the character of the urine, must not the force of his argument be abated by the admission that urates replace urea in a large number of other morbid conditions, so that we cannot attach any specific value to this fact, the general significance of which will be better appreciated by the physiologist, who will see in the presence of uric acid and the urates a debased condition of organic waste, common to the life of inferior organisms?

To pass, however, from these desultory observations, which the present position of pathology has suggested, the subject of diagnosis claims a few words. We must all admit that diagnosis ultimately rests upon an exhaustive pathology. Without a knowledge of what is possible in disease, diagnosis must be defective, and is, therefore, in that degree defective at the present day, since it is plain that we are unacquainted with many pathological states, if, indeed, we be fully acquainted with any. Moreover, a knowledge which might seem exhaustive to-day, might, by the changing circumstances of the world, be defective to-morrow. Without raising the question, whether disease has within historical periods changed its type, it may be maintained, as was long ago pointed out, that the pathological tendencies of the body do vary with the *genius anni*, as witness the changes in epidemic disease. Within our present experience, cholera has afforded us new pathological questions, which are not yet solved; and strangely, side by side with it—to make the contrast more impressive—diphtheria has revived; laying before us, as if to teach us how feeble our pathological science is, two opposite conditions: two diseased mucous surfaces—one digestive, one respiratory—from the former of which, by mysterious inversion of its normal forces, the salines and water of the blood may be fatally diffused, and from the latter, as by a kind of morbid polarity, the fibrine only is poured out.

Although the perfection of diagnosis cannot be reached till we have a perfect pathology, we have to confess that it falls behind the pathological knowledge we at present possess, as the revelations of the *post mortem* tables abundantly confirm.

And this brings me to the second principle of diagnosis, a knowledge of the probable in disease. Of this, experience alone can inform us, and experience of the most varied kind. But when so varied, and supported by a large knowledge of pathology, it often enables us, as by prophetic insight, to diagnosticate conditions, which neither direct physical examination, nor the most systematic arrangement of symptoms, could explain. These suggestions are amongst the best fruits of experience—of that experience which is able to anticipate causes, and from causes their effect. The advancement of diagnosis depends upon the capacity of medicine to make these anticipations with increasing certainty, which, though *anticipationes mentis*, are truly *interpretationes naturæ*. To illustrate these remarks, what could I better quote than the clinical history of thrombosis and embolism? What mysterious obscurity, until recently, involved the phenomena of which embolism was the cause; but, thanks to Kirkes and Virchow, when once the pregnant fact of embolism in vein or artery is recognised, not only present facts arrange themselves in order, but we are able to anticipate the possible occurrence of others, and, by anticipation, often to prevent them. Symptoms and physical signs may supply us with abundance of clinical facts; but, until the one great fact be recognised in such cases, we can make no step in diagnosis.

Nor does this instance by any means stand alone; for wherever, from the nature of the case, we are unable to make a complete physical examination, as must occur in diseases of the brain, and as often occurs in diseases of the abdomen, pathological inference, or pathological anticipation, has to supply a meaning to other portions of the evidence. In brain-diseases, this method of interpretation comes largely into play; and the neglect of it has much to do with the obscurity in which, at the bedside, these diseases are still involved. It is often impossible to form any opinion whatever of the malady under which a patient with brain-disease may be labouring, from an inquiry however acute, and however complete, into the mere statical facts, as they at the moment present themselves. The attempt to do so is perhaps more likely to lead to error than to truth; a fact which, if I be right in the statement of it, shows of how little value mere symptoms are in the diagnosis of such diseases.

Abercrombie felt this to its full extent, and one of the objects of his treatise on cerebral diseases was to make it clear, and to warn us against future attempts in that direction. A perusal of his writings will leave upon the mind the impression that the most diverse affections of the brain may, at the bedside, present the same symptoms; that in the most extensive lesions there may be none at all; or that the whole catalogue of symptoms may appear without any lesion. But the feeling of despair which such a perusal formerly induced, is now in great part dissipated by the success with which the inquiry can be made in the direction pointed out. Admitting that we shall never diagnosticate cerebral lesions by their symptoms; partly, because different lesions may produce the same symptoms if the seat be the same; partly, because there appear to be surplusage portions of brain-tissue, as in the hemispheres, where lesions cannot make their presence known; and partly, because in that monster disturbance epilepsy, we may have a variety of states simulating organic lesion, we betake ourselves, again, with renewed energy, to the study of morbid anatomy and pathology, which first caused the confusion by disturbing our ignorance, feeling assured they will at last afford us a full clue to the difficulty. To a large extent they have already afforded this clue. To begin with the last fallacy I have named, I may remark that we are better acquainted than formerly with the various forms of the epileptic state. A better pathology has prepared us to recognise in this condition a great variety of effects. Todd drew attraction to epileptic hemiplegia; and in the same subjects there occurs also a remarkable form of coma, which has often led to the supposition of effused blood, or tumour, or abscess—suppositions which have been falsified by the recovery of the patient. Whilst our notion of epilepsy included nothing more than a convulsive state with unconsciousness, numerous errors in diagnosis must have occurred from this source alone. It now represents to us a condition of nerve-force, in which may occur not only the common phenomena of epilepsy, but coma without convulsion; paralysis following convulsion; sudden and transient mania, or an approach to it; as well as, according to Trousseau, some strange forms of neuralgia. A knowledge, therefore, that a patient is liable to epilepsy, or comes of a family in which such a state has directly or indirectly occurred, must make us pause in our diagnosis, and thus save us from a precipitate or erroneous conclusion. The proneness of the aged to epilepsy is a fact probably not sufficiently borne in mind in the diagnosis of these cerebral disorders. As to the second fallacy, when disease is situated in what may perhaps be called, without misuse of the term, the surplusage portion of the cerebrum or cerebellum, we are often led to suspect its presence, and as often correctly to infer its nature (and avoid the third fallacy), from a knowledge of the fact of surplusage, and of what is probable under collateral circumstances, though the symptoms of organic disease may be apparently of an insignificant kind. For instance, headache with occasional bilious vomiting in a young and healthy adult—tumour; (?) the same symptoms, with chronic suppuration about the ear, or in some distant part—abscess; (?) nearly the same symptoms, with syphilitic cachexia—syphilitic affection of the brain. (?) This is the merest outline, but the drawing is true to nature. May I say, once for all, that any peculiar shape of head, large or small, has, like the epileptic brain, long been admitted to defy diagnosis. Further, how much have we not gained in the diagnosis of cerebral disease by the known tendency of renal cachexia to induce chronic or subacute cerebritis, and of embolism to cause plugging of the vessels?

In turning from diseases of the brain to affections of the chest, we find that we are here able to combine our knowledge of the possible and the probable with direct physical signs; and consequently the diagnosis of chest-affections has very steadily advanced. Old errors, however, still linger even here, and a true dynamic estimate of lung-lesions is yet a desideratum. This must be supplied by improved interpretation of physical signs through attendant physiological conditions. The word phthisis, which has now too often a specific value, will dilate so as to include a whole genus of chronic affections, which, when duly recognised and classified, will afford more secure ground of prognosis, and spare us the perusal of worthless records of so-called consumption cured.

In the diagnosis of abdominal diseases, we want an increase in the number of our more cardinal facts; such facts, for instance, as that the enlarged gall-bladder changes its shape under contraction; or that of the two characteristic notches in an enlarged spleen; or that of the peculiar position of the colon in enlarged kidney, etc. At present our diagnosis is mostly one of inference, from our knowledge of the liability of the several organs to particular lesions; thus we avoid the error of supposing the presence of mesenteric disease in young women emaciated to the last degree through hysteric apepsia, by our knowledge of the latter affection, and by the absence of tubercular disease elsewhere. We infer alcoholic changes in the liver from the aspect of the face, mottled by venous stigmata and the yellowish conjunctiva, even without any direct knowledge of the state of the liver, or the habits of the patient. We suspect a cancerous disease of the peritoneum in the aged from the pain with effusion. It is obviously from the perfection of physical diagnosis, aided by pathology, that we must look for the advancement of medicine. The feelings of the patient, so-called symptoms, are of little value taken by themselves; often, in fact, their mere number and variety are a proof of the absence of disease, and it is admitted that they always need interpretation through physical inquiry.

The eye, the ear, the touch,—and chemistry replacing the other two senses—are impressed into our daily service, and we may hope that what the ophthalmoscope has effected for the eye, these other means may do for other parts. To chemistry we owe much, but there are two wants we ought to express. We want analyses of the *residuum* of the urine, especially in disease, in which we may hope to discover new elements for diagnosis; and we further want ready clinical means for recognising what is discovered by more elaborate processes. Our hope in the direction of chemistry ought to be unlimited, seeing that changes in the urine must correspond to intimate changes in the organs and textures.

To return, however, to physical diagnosis, the fidelity with which the characters of a disease are often marked in its tissue changes must excite equally our wonder and attention. It may be no more than the tint of the morbidly vascular part—a condition apparently the most trivial and accidental; and yet it returns, with unerring certainty under the like conditions, as our guide to diagnosis. The multiplied generations of the vaccine vesicle from one lymph, maintaining to this day, in all respects, the characteristics of that which first arose under the hand of its immortal discoverer, is one of the strongest evidences that I could adduce of such fidelity, and may well encourage us to the investigation of physical signs as an evidence of the pathological causes to which they are due.

But our diagnosis is not always of one morbid state. There may be grafted upon some special diathesis, as of tubercle or of gout, the effects of alcohol, syphilis, mercury, and miasm. No doubt even more complicated instances could be given, but this will suffice to show the character our diagnosis must take before we can proceed to treatment.

As health is our object, or as near an approach to it as circumstances admit, *hygiene* and *therapeutics* claim the last and highest place in our thoughts. Happily, at length, hygiene has gained strength enough to maintain an independent vitality as a science. To know and counteract the causes of disease before they become effective is evidently the triumph of our art; but it will be long before mankind will be wise enough to accept the aid we could give them in this direction. Ignorance of the laws of health and intemperance of all kinds are too powerful for us. Still we shall continue to wage against them an undying crusade; and truly we may to-day congratulate ourselves that no crusade ever called forth more able and devoted warriors than are engaged in this.

The diseases of the young are in large part preventable diseases.

Epidemics carry off in great proportion the healthy members of a community.

It is futile, if not worse, to speak as some do of leaving diseases to work out their ends, as agents of a moral police. Medicine allows no such prerogative to our judgment. It is enough for us that diseases prevail, to stimulate our best efforts for their prevention, without our asking a question beyond.

Nothing can stimulate science more to the investigation of therapeutics than the feeling that the diseases calling for treatment prevail in spite of our best efforts to prevent them. Where hygiene fails, properly commences the work of therapeutics; but it is painful to find ourselves occupied in making feeble and often useless efforts to combat the effects of a poison which might perhaps have been stamped out in its beginnings.

The strength of modern therapeutics lies in the clearer perception than formerly of the great truth that diseases are but perverted life-processes, and have for their natural history not only a beginning, but equally a period of culmination and decline.

In *common* inflammatory affections, this is now admitted to be the all but universal law. By time and rest, that innate *vis medicatrix*,

> "Which hath an operation more divine
> Than breath or pen can give expressure to,"

reduces the perversions back again to the physiological limits, and health is restored. To this beneficent law we owe the maintenance of the form and beauty of our race, in the presence of all that tends to spoil and degrade it. We cannot pass through the crowded streets and alleys of our cities without recognising proofs of this in the children's faces, in spite of all their squalor and misery; and, when we remember what this illustration in all its details reveals, we may well take heart, even where our work seems most hopeless. The effects of disease may be for a third or fourth generation, but the laws of health are for thousands. Bearing this in mind, I have often had occasion to remark in practice how little we can estimate the reparative powers, however able we may be to discover diseases. This is, perhaps, never more striking than in some chronic affections, which, having resisted all our efforts at cure, may have been abandoned in despair, or at length placed upon some indifferent treatment. Under these circumstances, with what interest have most of us day by day watched the lessening deviations of disease, until the balance of health has been again all but restored, unstable though the equilibrium thus gained may, from the nature of the case, have been.

Therapeutics were at one time directed only by two ideas—of *strength* and of *weakness*. *Sthenic* and *asthenic* expressed in general terms the morbid conditions requiring treatment. Of the same import, but of older date, were the thoughts derived from the then current theory of *phlogiston;* and the terms *phlogistic* and anti-*phlogistic* still linger in medical treatises. From a better physiology we have learnt that perverted functions in disease, however exaggerated, are due to failure, and not to excess, of the vital powers.

Organic strength lies nowhere but in the vital circle of nutrition and function.

A rapid pulse and active delirium, like the increase of the animal heat, are signs of deficient *balance-power*—a power which we have been so slow to recognise in living organisms, that we have not yet an accepted expression for it. How different seems to us at the present day the value of the symptoms which were formerly considered indicative of strength.

For an increase of temperature we see but increased waste. Every degree of rise in the thermometer, indicates to us a corresponding decline in that nervous control which regulates the functions in health, and this decline is the more important, if it be true in complex organisms, as it is in simple machines, that this combination which limits the mere working forces is the highest and most characteristic. The terms "strength", and "weakness", are valueless, as expressive of conditions so complicated as those of disease. They are deduced for the most part from the feelings of the patient, and a few superficial phenomena. They are [empty] idols, impressive only by the extent of their emptiness. Surgical treatment was greatly advanced by the imaginary discovery of the *sympathetic powder*, which being placed upon the instrument inflicting the wound, the injured part, by time and rest, was allowed to recover under the simplest means. We need now to import into medicine a large part of the best surgical principles so deduced. The surgeon is contented to place a wounded part under the conditions of physical and physiological rest, and after attention to hygienic conditions, the *res non naturales* of our forefathers, to abide the result. This, no doubt, expresses the largest part of our treatment of common acute disease. We now know that we cannot directly control the morbid processes in pneumonia, pleurisy, or pericarditis; we know further that the means formerly considered essential to the cure of these diseases, tested by better clinical observations, were either useless or pernicious. That instead of favouring the plastic processes in inflammation, whereby the normal decline of the disease was promoted, the effused material was often more or less degraded and spoilt by the treatment employed, and remained in the affected parts, either as a foreign body, or in different degrees approaching thereto.

And this must always have been so, had we continued to regard these effusions as simply foreign products; but as soon as we perceived their physiological relations, and that they had a life like the tissues from which they sprang, they took a different aspect, and it became our duty, often without much interference, to stand by, and watch this course to the end. With an audience like the present, so capable of supplying the proper safeguards to these expressions, I am not likely to be misunderstood, as if the duties of the physician were of a negative kind. There is a sufficient sphere for our activity, in ways too numerous for me to mention:—in the relief of symptoms where the lesion may be left to its natural course:—in the treatment of the lesion itself, where we have means adopted to it; and of these we have many:—in maintaining the health when the degeneration or lesion is incurable. Time would fail me if it were otherwise proper in this place to enumerate and enlarge upon the valuable applications of medicine. The discovery of disease; —the alleviation of its symptoms—the obviating its inroads—the placing our patient under favourable conditions to bear it—the guarding him against what would be injurious—and the administration of remedies often in themselves effectual for its removal—are surely services of no unimportant kind.

There is probably no human work which daily confers greater good upon society than does ours; and when we consider that from the ranks of our profession the chief cultivators of modern sciences have sprung, whether we speak of botany, comparative anatomy, chemistry, physiology, biology, hygiene, or social science, we may feel some justifiable pride and be encouraged in spite of all failures to go on, assured that our future must be one of ever increasing usefulness and honour.

THE RADICAL CURE OF HERNIA.

EXTRACT FROM THE ADDRESS IN SURGERY TO THE ANNUAL MEETING OF THE BENGAL BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

By J. FAYRER, M.D., F.R.S.E.

In the year 1862 I introduced into my wards a new and, as it seemed to me, more simple method of operating for the radical cure of hernia. I had previously practised that which is known as "Wützer's," or some of its modifications, such as that by Mr. Redfern Davies, with some success; but owing to the complicated apparatus, and the tedium of the treatment, I was led to search for something that might prove as efficacious and, at the same time, more simple. I was indebted for the idea to Mr. Syme's plan of treating hernia; and that which I have adopted and now practise, and which I propose to explain, is a modification of Professor Syme's method. I have, up to the end of 1866, operated on 67 cases in the hospital, and have had several since; some of these cases are still under treatment, and those who are capable of being brought before the meeting I submit for your inspection, that you may have an opportunity of seeing the treatment in this stage. I also hope to shew you certain cases that have been operated on some time ago, and have thus satisfactorily solved the doubtful question whether the operation which at first is successful, can be permanent in its good results.

The object of the operation is to close or so far contract the opening in the abdominal wall on its inner peritoneal aspect that the protrusion of the hernia shall be limited, or altogether prevented; and the mode in which this is accomplished, is by procuring adhesion or contraction of the margin of the opening, whether at the internal ring in oblique inguinal hernia, or of the direct opening in the other form. I believe that unless the operation effect this purpose it is not likely to be successful; and as it is not possible to make certain of always accomplishing this end, a proportion of cases will fail. I find that, out of 67 cases operated on in the hospital, 11 failed altogether, 9 were only relieved, that is, though not successful altogether, yet were so much improved that the hernia was controllable by a truss; one case only died; and in this instance, death was not due to peritonitis, but to erysipelas affecting the thorax; so that, although no doubt death was indirectly due to the operation, it was not the immediate result of it. Indeed, I know of no operation of importance attended with so little danger. Wound of the peritoneum does not necessarily involve dangerous consequences; more than once I have injured it by puncture, as proved by the free discharge of peritoneal fluid, but no ill result followed. In one case related in the *Annals*, this happened; the patient recovered and wrote to me from Ceylon some months after to say that he was perfectly well. The recoveries in nearly all the cases have been rapid, and the proportion of success most gratifying; when we consider the importance of a favourable result, it is impossible not to feel satisfied that so simple a surgical proceeding should suffice so often to ensure it.

I have placed the instruments with which I operate on the table for your inspection, and you will see that they are very simple; a plug of wood, with two ligatures, a curved needle to pass the ligatures through the abdominal wall; a second small piece of wood to knot the ligatures over, completes the apparatus. The method of performing the operation is simple, but it requires some care and confidence for its effective completion. The fore-finger of the left hand oiled, is inserted into the inguinal canal, and the scrotum invaginated is pushed before it up to the internal ring with firm and decided pressure. One ligature, strong and well waxed, is then threaded in the needle, the point of which is insinuated along the palmar aspect of the finger on its radial side, until it has reached the extreme apex of the invagination; it is then forced through the abdominal parietes, and appears on a line with the anterior superior spine of the ilium; about 1½ or 2 inches internal to. The needle is then unthreaded and withdrawn, to be threaded with the second ligature, and again introduced, this time on the other side of the finger, to be pushed through the abdominal wall as before; this time transfixing a short distance from the point where it first pierced, but emerging through the same opening in the integument.

The needle is again unthreaded and withdrawn. The plug is now pulled into the canal, the apex being firmly tied against the apex of the invagination, and the threads firmly knotted over the small piece of wood. The operation is thus completed.

The plug is left *in situ* for three or four days or more, until pus appears to flow freely from beside the ligatures. These are then cut, and the plug withdrawn. The discharge is gently pressed out, a pad and spica bandage are applied, and the patient is kept in bed and cautioned not to strain at stool for some days. As soon as the wounds have cicatrised, a truss may be applied, which should be worn for some months, especially when any exertion is made; it may gradually be left off when the tissues have become firmly consolidated. The time occupied in treatment varies from a month to six weeks in ordinary cases; if there be much suppuration, and that have burrowed among the abdominal muscles, there may be delay, and counter-openings may be necessary; but such cases are the exception. The only one was that of a native who was attacked with erysipelas and died of pyæmia, the result of cellulitis. During the period of the insertion of the plug, the bowels generally remain confined, and indeed for several days after its removal; should they act, the patient must be warned against efforts at straining.

I find, by referring to the records of my wards, that I have, up to the end of 1867, operated sixty-seven times. In 1862, I had fifteen cases, of which ten succeeded, one was relieved, and four failed. In 1863, there were eight cases, of which five were successful, two were only relieved, and one failed. In 1864, I had eight cases, of which six were successful, two relieved. In 1865, I operated in fourteen cases, of which ten were successful, three relieved, one failed. In 1866, there were seven cases, five successful, two failed. In 1867, I had fifteen cases, of which ten were successful, one was relieved, three failed, and one died.

Ram Coomas Doss was admitted on the 27th February, 1867, with inguinal hernia of left side; he was operated on, 5th March, 1867, and died of erysipelas, on the 26th March 1867. Extensive suppuration was set up between the muscles. Erysipelas took place in the chest, the cellular tissue sloughed, and free incisions were made to expose the sloughy tissues. After death, there was found consolidation of the two lower lobes of the right lung, and one large pyæmic patch of the upper lobe. There were no cardiac coagula. There was thus a total of sixty-seven cases, of which forty-six were apparently successful; nine were relieved; eleven failed altogether, and one died.

Before discharging any of those returned as cured, they were submitted to the severest tests, lifting weights, climbing up a pole, jumping, running up and down-stairs without a truss; and unless they were able to bear this test, they were not considered as cured. In many of these I fear the hernia may have returned afterwards. But I have seen some after a long interval, and am happy to say there can be no doubt that in these cases the improvement is permanent.

I have placed on the table a specimen illustrative of the mode in which the occlusion is effected; it was the case of a French sailor, who had been operated on some months before he met with an accident, which caused his death. You will see that the internal ring is perfectly closed. I have also brought into the room several patients who are recovering from the operation, and so far they promise to do well. I have also some persons who were operated on at different periods of time past, and you will be able to judge by them how far we may, in favourable cases, hope to succeed. I would here repeat what I have often before stated, that I regard the operation as one of a somewhat uncertain character as to its results, but offering a sufficient prospect of success to warrant the surgeon, and justify the patient, in attempting it.

WHAT ARE DISEASES?

By SAMUEL WILKS, M.D., F.R.C.P.,
Physician to and Lecturer on Medicine at Guy's Hospital.

UNDER the above name, Dr. Handfield Jones has opened up the most vital question, I believe, in the whole domain of medicine, since it shews that the very first principles of treatment are not yet settled. The writer has argued the subject in his usual judicious manner, and thus the truths which he asserts must carry conviction to all readers; at the same time, they are evidently the expressions of facts seen on one side, and are intended for those who have not thought of disease from the author's point of view. I believe, however, that there is much to be said on the other side of the question; and I myself think that, at the present day, this is the more important, seeing that the tendency of the medical mind is in the direction which Dr. H. Jones has taken.

He shews in his paper, in opposition to antiquated views, that which we style disease is nothing which the mind can grasp in the form of a distinct entity added to the human frame, but rather a deranged condition of the animal machinery, and therefore, that our art must be directed to correct such derangement rather than to be used in attempting to fight some imaginary or unknown phantom, which we call 'the disease.' In fact we must not treat something which we call disease, but we must treat the patient. It may not be that the author of this paper maintains this doctrine in all its exclusiveness, but the tendency of his remarks is certainly to support the idea; he may indeed strongly maintain it, and if so, I have no doubt the majority of the profession is with him. It is a doctrine, long inculcated at my own medical school, and one which I myself at one time enforced upon students. Having had reason, however, now for many years to very much modify my opinions, I could not refrain from expressing these in a journal which has disseminated the remarks of so distinguished a physician as Dr. H. Jones. The principal object I have in doing so, however, is a practical one; since the treatment of our patients, according to the opinion we hold, must often be at complete variance, and thus one method must be essentially erroneous; of course, I should fear no harm in the discriminating hands of the writer, but with less judicious practitioners, a false theory leads to an utter disregard of diagnosis, of the value of remedies, and to a treatment of disease based simply on popular and preconceived notions.

The question is really a most fundamental and vital one. Is there, or is there not, a sufficient resemblance in certain morbid states occurring in different individuals, and which we designate by a name, to demand a similarity of treatment? The question is to be answered by experience alone; but for myself I believe that some general principles and particular remedies may be found for the treatment of disease, not overlooking of course the individual peculiarities of the patient. I find that many in our profession, whilst acknowledging their difficulty in treating disease, never hesitate to treat the patient; and thus, altogether ignoring the special malady under which he suffers, adopt the most heroic measures for the improvement of his present condition.

Space and time will not allow me to illustrate this but by one or two examples, and I will more especially dwell upon the present very extensive use of alcoholic stimulants in all kinds of disease. This appears almost entirely to have come about from the putting into practice the doctrine which I repudiate, that it is the individual and not the disease which is to be treated. I rarely meet with a medical man who has made that study of disease which shall enable him to say that this or that remedy is useful, but he more generally complacently confesses his ignorance, and simply has abstained from giving such remedies as antimony or digitalis because the patient was weak, and for the same reason administered in their stead wine, ammonia, or quinine. If I am called to consult in a case of pneumonia, I generally find that brandy is being given, and I naturally inquire if this has been found a good remedy in the disease; I obtain for answer that the patient was too weak to be treated by rule, and his feeble condition necessitated the stimulant. If I see a case of acute rheumatism with pericarditis treated by the same universal remedy, I get the same answer, that the patient was so low that the stimulant was absolutely required. If it be scarlet fever, typhus, typhoid, bronchitis, or other malady, they are all treated on the same plan: in fact, ammonia, ether, and alcohol might be regarded as universal medicines in acute disease, just as iron and quinine are in chronic. As for making out the disease, or treating it by methods which a close study of it in different individuals has shown to be good, this is considered interesting enough for a clinical lecture, but quite unnecessary for the good of the patient. He must be treated, and not the disease! an opinion, I believe, bad in theory and mischievous in practice. If iodide of potassium be given, the strength or weakness of the patient is not considered, but the question is, whether experience has proved the drug to be useful in cases similar to the present; but when we come to certain other remedies, whose action on the healthy body is a little more apparent, as ammonia, alcohol, or quinine, then we think we have sufficient evidence in the state of the patient to suggest or withhold their administration. Now I must state my own conviction, that we have at present no such means of recognising the need of their use, and that experience alone must guide us; in fact, I will use stronger terms, and simply deny that the supposed ordinary indications for the administration of stimulants are any real tests for their use. Taking the case of fevers, it has been thought that the muscular and nervous prostration of the patient, the weak heart, feeble quick pulse, brown furred tongue, were indications for the use of stimulants. This is simply incorrect, for such patients do well or better without them. I confess my own ignorance as to the proper tests for the administration of alcohol, but I simply deny that the usual indications warrant its use; for if so, as all diseased people are weak they all want brandy; a not uncommon argument. I hope soon that by such tests as Dr. Anstie has given us, we may have some kind of gauge; but even then I submit that experience is the best guide. My own opinion is that we have just as much right to study the effects of alcohol in particular diseases, as we have those of digitalis or bromide of potassium; and as regards any knowledge we may obtain for their administration from the character of the pulse, we have not more guide for the one thing than the other. To suppose that, because a person has a disease and is therefore feeble, he is necessarily to be assisted by alcohol, is simply a delusion; there are no facts to warrant it. For, on the contrary, we may see a patient lying in bed, having brandy poured down his throat, and with a pulse too quick to be counted, and then speedily observe its diminution in frequency and rise in strength, upon the discontinuance of the stimulant, and in case of heart-disease even a still further improvement from the administration of digitalis. Whilst, therefore, patients with all the supposed indications for stimulants will very frequently do equally well without them, we are not in possession of those rougher modes of knowledge, which will guide us to their use, and therefore we had better endeavour to learn whether they are 'good for the disease' rather than for the individual.

I have taken the case of alcohol because it is the most striking and by far the most important illustration which I can bring forward in connection with this very vital question, and it is because so many have already settled the matter in their own minds that I speak strongly upon it. But the argument applies to other remedies; and with regard to them we may ask, do we know sufficient of their action to enable us to determine in any particular case whether they will be of use or not, or are we not guided by our knowledge of their operation in cases which are similar? I think at present, a general experience of their efficacy can alone guide us. This opinion, however, is by no means always adopted. Thus I find a patient with acute albuminuria taking iron and brandy because he is so anæmic and weak; I venture an opinion that it would be better to treat the disease rather than the patient, and recommend a saline with antimony and a purge; in a few days he is better and therefore stronger. These remedies had previously been withheld in the fear that the patient could not bear them. I also constantly witness the good effects of digitalis in patients who had not hitherto had this drug because they were too weak; and I have more than once observed the highly beneficial effects of bloodletting in bronchitis, in persons in whom the pulse was scarcely to be felt, and therefore of course venesection was to be shunned. If I see a wet rag on a patient's head and I inquire as to its use, I am told it is placed there because the head is hot, which is no reason at all. Indeed I am sorry to remark that the character of the malady, the course it pursues, and all experience as to the effects of remedies in particular complaints, are constantly put on one side in order to treat the patient.

As the whole question does not turn on the administration of so called strengthening or lowering remedies, but has a far wider range in reference to the correct methods of treating disease, I may take one or two other instances, and remind the reader of the frequent harm of arresting a diarrhœa in Bright's disease, or attempting to stop a hæmoptysis in morbus cordis, or of giving brandy and opium in cholera. The following is an instance of what I consider correct treatment. A young woman is brought to the hospital too ill to give any account of herself, but her condition clearly reveals a case of typhoid fever. On the fourth day there is no relief from the bowels, and the clinical clerk suggests an aperient dose. I reply that I am treating a case of typhoid fever in which the bowels are diseased, and no doubt contain a quantity of fluid secretion, and therefore object to the proposal. A few hours afterwards the sphincter ani becomes relaxed, and the bed is flooded by a fæcal evacuation. I am thankful that I treated the disease and not the patient. Again, a person is seized with pain in the right iliac region, followed by symptoms indicating a local inflammation about the cæcum. A medical man is called in who never thinks of the probable nature of the disease, but turns to vigorously to treat the patient. To overcome the sickness, he orders effervescing medicine, and brandy with soda water; for the constipation, aperient medicines and turpentine injections, and to get rid of the flatulence, a good stimulating embrocation to the abdomen; a method than which no better could be devised to prevent the natural repair which would have taken place, and to set up general and fatal peritonitis. If the medical man would cease to treat symptoms in sudden or acute abdominal affections, more lives than I dare to think of might be saved. In peritonitis, arising as it does from so many causes, and judicious practitioners not existing in too great a number, I verily believe, though reluctant to declare it, that the patient's friends had far better never send for a doctor. If I were seized with a sudden peritonitis and could only utter a few words, they would be 'for God's sake leave me alone.'

I do not in this communication wish to undervalue the study of individual peculiarities which modify morbid processes, and therefore agree with very much which Dr. Handfield Jones has advanced; but I fear the strength of his name may help to encourage a very loose system of therapeutics which is now in vogue. In fact, the scepticism which exists as to the value of remedies, prevails very largely, and I am constrained to think that those practitioners are in the minority who have made a real study of therapeutic agents; for my own part I think it equally necessary to ascertain the exact value of such powerful drugs as ammonia and alcohol, as of digitalis, conium, or bromide of potassium. It is true, that new compounds are daily invented, but these only serve to strengthen my opinion as to the prevailing want of purpose in the treatment of disease; for surely very little therapeutic knowledge is evinced when the patient with acute disease is kept up with ammonia and brandy, and he who has chronic diseases is made to swallow, under the euphonious name of chemical food, some newfangled compound, consisting of cod-liver oil, quinine, iron, strychnia, phosphates of all kinds rolled into one. In fact, a large amount of treatment at the present day may be summarised as 'keeping up the patient'; equally satisfactory to himself and his friends. This I believe has all arisen from the withdrawal of the student's mind from the true nature of pathological processes, and the absence of a careful observation of the effects of therapeutic agents, and directing him rather to take cognisance of the patient's present condition, in order to judge simply the amount of support which he requires.

To put the matter once more in a practical shape. In the very next case of fever or pneumonia which the reader may see, he will ask himself the question, whether his patient requires stimulant or not, and he will feel the pulse accordingly. Now I do not maintain that there are not well marked signs of collapse which demand a stimulus, in fact I am sure I have saved patients' lives by their timely administration, but with such exception I hold that the doctor has something else to do than examine into the present state of his patient; he has to put together all the cases of the kind which he has seen, and then make use of his experience in the treatment of the case then demanding his attention. What do I do myself? I find that my fever patient presents all the indications for stimulants, which are usually considered to be such, and at one time I was in the habit of administering ammonia, wine, and brandy accordingly. I have abstained from giving them, and had more recoveries, therefore the weakness of the patient is no test for their use. I have had cases of pneumonia, in which I could say nothing against the propriety of giving stimulants, by considering alone the want of power of the patient; nevertheless, I have been more than satisfied by a persevering effort to withhold them; on the other hand, I have had no reason to regret an universal order for brandy and wine in all cases of erysipelas. Let me say, finally, there is often more knowledge of the effects of remedies evinced by the man who may consider it judicious in a particular case to do nothing, than there is shewn by him whose only resources are those which tend to 'keep up' the patient. The latter may believe in physic, but knows nothing of its operation.

MEDICINE: ITS YOUNG PRACTITIONERS AND FUTURE ADVANCES.

Being an Extract from the Edinburgh Medical Graduation Address, given on 1st August, 1868.

By SIR JAMES Y. SIMPSON, Bart.,
M.D.EDIN. AND DUB., D.C.L.OXON., ETC.

Do not trust your fate and fortune to the letters and the influences of others. Be your own patrons. Write out your own professional claims in the results of your own professional achievements and skill, and in your professional devotion and zeal to the weal of your patients, be they rich or poor. "The poor you have always with you," may be said of all true physicians, and particularly of the young physician. They are specially his objects of care and his charge. He will find the phenomena and the treatment of disease, the same in the body of the pauper and in the body of the millionaire. And do not suppose that the devotion of your time and talents to the sick poor may not be the very steps by which you may ultimately obtain success in life. They often prove the direct means of advancement. Many physicians have found it to be so. "I crept," observed one old Edinburgh graduate, and afterwards the most eminent and best employed physician of his day in London, Dr. Fothergill—"I crept over the backs of the poor into the pockets of the rich." And he said it as an incentive and encouragement to young physicians like you—not with any mercenary motive. For no man was ever less mercenary than Dr. Fothergill. He scorned the idea of physicians becoming mere traders and traffickers in gold, for the relief of human pain and woe. "I would banish," he observes, "all thoughts of practising physic as a money-getting trade, with the same solicitude as I would the suggestions of vice or intemperance. . . . I endeavour to follow my business, because it is my duty rather than my interest; the last is inseparable from a just discharge of duty, but I have ever wished to look at the profits in the last place, and this wish has attended me ever since my beginning. . . . With a great degree of gratitude I look back to the gracious secret Preserver that kept my mind more attentive to the discharge of my present anxious care for those I visited, than either to the profits or the credit resulting from it; and I am sure, to be kept under such a circumscribed unaspiring temper of mind, doing everything with diligence, humility, and as in the sight of the God of healing, frees the mind from much unavailing distress, and consequential disappointment."

Ordained this day as physicians, most of you will not, let us hope, be simply content to practise medicine as a mere means of livelihood and respectability. It is a progressive science and art which has lately moved forward rapidly, and which threatens to speed still more quickly onward for the future. Knowing this, the hearts of many in your ranks are, I doubt not, fired with the wish of assisting in its proud progress, and of advancing it by your own labours and discoveries. What subjects, then, are most patent for new researches—what fields of inquiry are most likely to bear rich fruits? Bear with me while I say a few words on this topic.

During the present century the scalpel and the microscope have developed for us a vast amount of new and most invaluable facts in the way of morbid anatomy and pathology; and this field is by no means yet exhausted. Science has, at the same time, laboured most successfully to place in the hands of the medical practitioner means and instruments by which we can perceive and discover the pathological anatomy of various organs within the body of the yet living individual. Thus, for example, by the invention of the ophthalmoscope we can look into that dark inner chamber of the eye where shadows and soul—where matter and mind—so mysteriously meet and commune with each other; and can distinctly see the various diseases that may affect its walls or its fluid contents. The laryngoscope exposes fully in a similar way to our inspection the interior of the organs of voice. The endoscope reveals to us the conditions of other internal canals and organs. While to the instructed ear of the physician the stethoscope whispers back the diversified morbid conditions of the lungs—telling wondrous secrets as to their exact nature and precise seats. In this great line of discovery new victories are certain to be won. Do you search out other additional physical means of diagnosis for these and other viscera. Possibly even, by the concentration of electrical or other lights, we may yet render many parts of the body, if not the whole body, sufficiently diaphanous for the inspection of the practised eye of the physician and surgeon.

But the future greatest conquests for you, and for the coming race of physicians, are probably to be gained by researches in pathological chemistry and therapeutics. Pathological chemistry contains, doubtless, a rare, and rich, and most extensive mine of priceless ores and products for the future advancement of theoretical and practical medicine, and the only shafts yet attempted to be struck into its lodes have barely touched the mere surface of its boundless wealth. The most practical, however, and so far the most important objects for calm, earnest, and faithful researches, on your part, are probably to be found in the wide field of therapeutics. For the department of therapeutics, though the most important of all the departments of physic, has hitherto been the most neglected of all,—the one regarding which we know the least. The physiological modes of action of medicines form a labyrinth, or series of labyrinths, to which we as yet in fact possess no clue. Will you strive to unlock its secret entrances? Besides, we know not enough of the simple powers of our drugs; though the practice of medicine is essentially and ultimately the practical application of therapeutic agents. In making this statement, do not misconstrue my meaning. The young physician trusts, perhaps, too much to mere drugs; the aged physician, perhaps, too little. "Do not," observed a former medical sage—Dr. Gregory—to a friend asking what kind of medical man he should employ when he settled in London—"do not employ too young a doctor—he will kill you; and do not employ too old a one, for he will merely let you die." The training of the philosophic physician consists in teaching himself when to give medicines, and what medicines;—and in what cases, and at what times, he should abstain from all drugs, and trust to nature, or to nature and hygienic means alone. He knows that a masterly inactivity is sometimes far more safe for his patients than the most efficacious but officious druggery. But when medicines are used, they should be the best and surest. We have a formidable farrago of them from the vegetable and metallic kingdoms;—many inefficient, some doubtful, and almost all repulsive in character and form. A most extensive field for new investigations in this line, lies temptingly open for the young and ambitious physician in the almost innumerable series of new chemical compounds which modern organic chemistry has evolved. Among the world of new organic chemical compounds will probably be yet detected therapeutic agents more direct, more swift, and yet more sure in their action, than any which our present pharmacopœias can boast of. It may be, also, that the day will yet come when our patients will be asked to breathe or inspire most of their drugs instead of swallowing them; or at least when they will be changed into pleasant beverages instead of disgusting draughts and powders, boluses, and pills. But that day of revolution will not probably be fully realised till those distant days when physicians—a century or two hence—shall be familiar with the chemistry of most diseases; when they shall know the exact organic poisons that produce them, with all their exact antidotes and eliminatories; when they shall look upon the cure of some maladies as simply a series of chemical problems and formulæ; when they shall melt down all calculi, necrosed bones, etc., chemically, and not remove them by surgical operations; when the bleeding in amputations and other wounds shall be stemmed, not by septic ligatures or stupid needles, but by the simple application of hæmostatic gases or washes; when the few wounds then required in surgery shall all be swiftly and immediately healed by the first intention; when medical men shall be able to stay the ravages of tubercle—blot out fevers and inflammations—avert and melt down morbid growths—cure cancer—destroy all morbific organic germs and ferments—annul the deadly influences of malaria and contagions, and by these and various other means markedly lengthen out the average duration of human life; when our hygienic condition and laws shall have been changed by state legislation, so as to forbid all communicable diseases from being communicated, and remove all causes of sickness that are removable; when the rapidly increasing length of human life shall begin to fulfil that ancient prophecy, "the child shall die an hundred years old:"—when there shall have been achieved, too, advances in other walks of life far beyond our present state of progress; when houses shall be built, and many other kinds of work performed by machinery and not by human hands alone; when the crops in these islands shall be increased five or ten fold, and abundance of human food be provided for our increased population by our fields being irrigated by that waste organic refuse of our towns, which we now recklessly run off into our rivers and seas; when man shall have invented means of calling down rain at will; when he shall have gained cheaper and better motive powers than steam; when he shall travel from continent to continent by submarine railways, or by flying and ballooning through the air; and when—to venture on only one illustration more—tiresome graduation addresses shall no longer require to be written by old professors, nor listened to by young physicians.

In developing these and many other analogous discoveries that in due time will be made in the medical and in other sciences, there will necessarily be expended a stupendous amount of thought, with countless hosts of experiments, and trials, and inquiries. But some of the discoveries will, in all likelihood, be reached by simpler routes. For within our own bodies, and on every side in the great world around us, are constantly at work numerous yet unseen and undetermined high general laws and actions. These laws and actions are, most of them, hidden and covered over by the thinnest films. They lie within our touch, and yet we see them not. In future times some of them will be detected by you or others—as some of them have been detected in times past—almost by accidental glimpses. If any of these accidental glimpses flash across your path, try to note and fix the value of the vision. In illustration of what I wish to state, let me cite two or three instances only from the past, and let us hope that such instances will be multiplied more and more in the future. A medical student, Galileo, sat one day idling in the cathedral of Pisa, and observed the singular regularity with which the oscillations of a lamp suspended from the roof were performed, and ultimately he elicited from this phenomenon the important laws and results to science involved in the movements of the pendulum. An Italian physician, Galvani, and his wife, in preparing the legs of some frogs for food, accidentally observed the skinned limb twitch convulsively when its muscles or nerves were touched simultaneously by two approximated metals—an observation that has eventuated in various momentous discoveries, and, among others, in the electric telegraph. A young medical disciple heard, in his master's shop at Sodbury, a country maiden accidentally prattle of the impossibility of her taking small-pox, as she already had had cow-pox. This casual remark was treasured up by the young listener, William Jenner, and at last elaborated by him into the discovery of the protective power of vaccination—a discovery which has been computed to have added three whole years to the duration of human life. An American physician, who graduated in this university in 1768—or precisely a century ago—Dr. Benjamin Rush, in his writings tells us that in cases of puerperal convulsions and coma he had seen uterine action go methodically on, and he hence inferred and prophesied that a medicine would be yet found capable of safely producing an analogous artificial coma with the effect of making parturition anæsthetic. And this prophesied medicine or class of medicines has been found. Keep, therefore, I warn you, your minds always awake, and your eyes and ears always open; and it may be vouchsafed to some of you yet to peer under and uplift the flimsy veils behind which nature's most important medical facts and laws are, no doubt, still tantalisingly masked.

The Action of Bromide of Potassium.—According to Dr. Pletger's observations on the human organism, bromide of potassium weakens the energy of the heart's action, and reduces the frequency of its beats, so that the pulse is frequently as low as 50. Large doses of the salt produce somnolency, loss of memory, and mental depression, and in some cases imbecility. These symptoms quickly disappear after suspension of the remedy or a reduction to smaller quantities. The continued administration of large doses causes more or less incapacity for voluntary movements, or a disinclination to perform them. The subject reels and stumbles when walking, whilst in other instances there is muscular debility of the arms without sensations of vertigo and disturbance of equilibrium. The motor nerves seem to be paralysed through the action of the bromide. The bodily temperature is lowered. The action of the salt upon the digestive organs is manifested by a mild gastric catarrh with a tendency to vomiting, an obstinate constipation after large doses, and redness of the oral and pharyngeal mucous membrane; cough and slight catarrh of the upper air-passages are sometimes produced, and, after doses of from one to two drachms, some dyspnœa. Against abnormal irritability of the genital system the bromide acts with undoubted efficacy; as a remedy for spasm and increased reflex action of the nervous centres, it excels all other means. *Deutsche Klinik.* No. 10. 1868.

OBSTETRIC MEMORANDA.

[Under this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

CASE OF PUERPERAL ECLAMPSIA.

By Osman Vincent, Esq., Obstetric Physician's Assistant, Middlesex Hospital.

A patient of the Royal Maternity Charity, residing in Clerkenwell, was taken in labour with her fourth child at 8 A.M. on March 23rd. Shortly afterwards, she had successive attacks of epileptiform puerperal convulsions. Her three former confinements had been most easy, and her previous health good. Thirteen years had elapsed between the last and the present labour. Dr. Hall Davis was sent for immediately and, on his arrival at eleven o'clock, found the acting district surgeon, Dr. Mathews, in attendance. The head presented upon the brim. The waters had come away at 8 A.M. that morning. The os uteri was nearly fully dilated, and soft; and the patient in an unconscious state, but not convulsed. She had the aspect of a plethoric subject, but exhibited a worn expression.

As a renewal of the convulsions was to be expected on interference without the aid of chloroform, I put her under its influence; and version was accomplished by Dr. Mathews slowly and easily, bimanually, although not without introducing the left hand partially into the uterus; and the body of a putrid female child, of about eight months' growth, delivered. As the head, however, was arrested at the brim, and much traction on the body in its decomposed state might sever it from the head, Dr. Davis, by manipulating with the fingers, hooked upon the malar bones, and the margins of the orbits, thus completed the delivery. The patient shortly recovered from the chloroform; the placenta was expelled; the uterus contracted firmly; and for the present the patient was quite free from convulsions.

She was now ordered a pill of calomel, colocynth, and henbane, to be followed by a strong black draught; and beef-tea for nourishment. At night, the bowels had not acted; and at ten o'clock the fits returned. The patient was ordered five grains of calomel at once, after which she had some quiet sleep.

Next day, the patient was in a semi-conscious state, but there had been no return of the convulsions. The bowels not being yet moved, two pints of soap and water were injected into the rectum. This was followed by several dark and very offensive motions. Half an ounce of castor-oil was ordered for the morning, and the beef-tea to be continued.

On the 25th, the pulse was 120; the tongue furred. The bowels had been open twice after the oil. The skin was hot. There was pain on pressure over the whole abdomen, and some dysuria. She was ordered a mixture containing bicarbonate of potash, tincture of hyoscyamus, and camphor mixture; and mustard poultice to the abdomen.

At 1 A.M. of the 26th, Dr. Hall Davis was sent for, and found the patient in a state of violent mania, which had followed upon two sleepless nights. Fifty minims of liquor opii sedativus were at once ordered, and the patient to be carefully watched. When seen twelve hours afterwards, she had had four hours' good sleep, and had recovered her reason. The bowels had acted twice. Pulse 120. As there was a complaint of headache, a blister was applied to the nape of the neck.

From this date she made a rapid recovery for a time. Her convalescence was, however, retarded by a slight attack of bronchitis, which soon left. She was, however, again pulled down by a sharp attack of hæmaturia, lasting over a fortnight; but, after appropriate remedies, she is now (May 1st) convalescent. The patient had never had any form of fit before. She was of temperate habits, and her previous health had been good.

The proximate cause of the convulsions seemed to be of centric origin—an emotion source acting on the brain, probably favoured by prior neglect of the bowels. The patient had been much excited by the death of a neighbour, which occurred in the same street, after premature delivery of a putrid fœtus, attributed to the explosion in Clerkenwell.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 8TH, 1868.

THE OXFORD MEETING.

THE success of the Thirty-sixth Annual Meeting has fully equalled the most sanguine anticipations of the members of the Association. This is in itself, perhaps, the most eloquent tribute that could be paid to the greatness of an event, to which we are still too near to estimate its full proportions. For the auspices under which the meeting was held were such as to encourage the hope that this meeting should not pale before the glories even of our recent international greeting at Dublin, which established a new, and we trust a permanent, bond of union between the profession in this and the sister country. The University of Oxford—venerable by its history and associations, laden with an atmosphere of learning, sympathetic and most nobly helpful in the progress of science—has testified anew its generous concern in the high interests of science and of humanity, by welcoming our Association, which numbers amongst its members the representatives of all that is most worthy of respect amongst the professors of the healing art, and of the sciences accessory to that art, and capable of advancing the physical welfare of the nation. The reception accorded to our Association has been such as must be satisfactory to the whole profession of medicine in this country. The stately halls of the University were placed at the service of the meeting with a liberality which sought only to consult the convenience of the visitors. The high distinction was not omitted of Academic honours bestowed upon the Presidents of Sections and a few of the most distinguished amongst the many illustrations of medicine present at the meeting. The noble hall of Christchurch was thrown open, by a very special exception, to our general meetings.

To the Vice-Chancellor, Dr. Leighton; to the Principal of St. Mary Hall, the Rev. Dr. Chase; to our President, Dr. Acland, as late Fellow of All Souls; to the Warden of New College, Dr. Sewell; and to the President of Trinity, the Rev. S. W. Wayte; for their most liberal and gracious hospitalities; and to the Dean of Christchurch, for the facilities which he gave of meeting—the special and grateful recognition of the Association is made. Merton, Magdalen, and St. John's Colleges, not only gave shelter to a large number of guests, but added much hospitable attention.

A special resolution passed at this meeting enabled it to testify to its sense of the eminent kindness and sympathy thus shown by electing as Honorary Members some few of the representatives of the University of Oxford who were especially concerned in our reception. The same opportunity was taken of expressing our obligations to the authorities of Cambridge, and some of the foreign visitors, whom all were glad to welcome.

The pleasurable expectations which were entertained of the kind of reception which we might expect at Oxford, and the inherent attractions of that illustrious and venerable seat of learning, helped to realise the anticipated result. The meeting has been great, not only by reason of the lustre which the cordial sympathy which a great University has evinced with our aims, our organisation, and our efforts; not only by reason of the seat of the meeting; of the unexampled amount of scientific work presented in the sections; of the distinction of the men who had delivered the addresses, and who have conducted the business of the sections; by reason of the character of the President, and the eloquence with which he appealed to all that is noblest in our moral nature, and most worthy of cultivation in our intellectual efforts. These constitute elements of a success of a very high order; such as must give just and legitimate pleasure to our hosts and to all those who attended the meeting. But for the Association, and for the profession, this large meeting seems to us the great and crowning source of congratulation; that this meeting, beyond all others, represented most fully and most successfully the many-sided aspects of our society—its manifold relations, grades, interests, and feelings; its varied composition; its combined nationalities; its variety and its unity; the full scope given to individuality of opinions, and even to eccentricities; the facility with which, in this truly English institution, complete representation is combined with successful self-government. In this we see a sure augury of the still spreading growth and of the enduring vitality of the Association.

It is of the deepest interest to the future of the profession that this Association, which has now assumed proportions so important, and which has so absorbing a relation to the profession, should retain this character. Nothing could be more characteristic of this many-sided vitality than to sit within the walls of Christchurch and listen to the noble exhortations of Dr. Stokes, and the refined, generous, sympathetic exposition by Dr. Acland of the most subtle, the most elevated and extended relations of our art and our lives with morals, with philosophy, and with science; and then to plunge headlong into medical politics with the impetuous impatience and fecundity of Mr. Gamgee. That gentleman succeeded in fairly outstripping by five minutes the action of the Subcommittee of Council on the Representation of the Profession in the Medical Council; then upbraided them with lukewarmness in a question which they have originated, into which they are prepared to throw all their energies; and blamed the JOURNAL for not similarly outwitting the Committee in the crusade which it is theirs of right and of will to lead. Herein lies the strength—here, too, it may be, the weakness—of the Association; for the two are, in human institutions, inseparably allied;—in the free play given to individual thought; the catholic appreciation of every kind of merit; the generous sympathy with varied aspirations; the toleration of widely different opinions. It is our glory and one of our sources of hope, that within the bounds of our Association are now comprised the noblest minds, the highest capacity of achievement, and the most varied grades of professional activity in Scotland, Ireland, and England. It is united by a golden bond of common efforts for a public good; it sets before all things the performance of duty and the maintenance of a high ethical standard; it believes the interests of medicine to be bound up with the promotion of education and the advancement of science; it treats all practitioners of medicine as one common brotherhood, bound to encourage, to assist, to cheer, and to sustain each other, in efforts for their mutual well-being and for the public good. The seal of approbation which the great Universities of the sister countries, England and Ireland, have set upon it, does not constitute its worth; but it is among its noblest credentials. Next year it will seek fresh inspiration in one of the great centres of industrial enterprise and activity—Leeds. With a defined mission, with true-hearted and high-minded leaders—numbering near twice as many members as it did but two years since, and still extending its borders—the British Medical Association is one to which it is an honour and almost a duty to belong, and which will be enabled, we hope, to labour with increasing efficiency for the common weal. This Oxford meeting marks a period of great prosperity in the affairs of the Association. *Floreat semper.*

STATE OF THE RIVER THAMES DURING THIS PRESENT SUMMER.

THE ammonia method of water-analysis which was brought out last year, supplies the chemist with a process for the measurement of organic nitrogenous matters in water, and is at the same time extraordinarily delicate, and very rapid and easy of execution. We have employed this method in the following examination of the River Thames. High up the river, at Windsor, as the following figures show, the water is of tolerable quality.

	PARTS PER MILLION OF WATER.		
	Free, NH^3.		Albuminoid, NH^3.
Water taken just above Windsor on July 31st, 1868, and examined next day...	0.01	...	0.14
Water taken just below Windsor on July 31st, 1868, and examined next day ...	0.01	...	0.16

The water of the Thames taken from the river at about Hampton Court, and filtered by the West Middlesex Water Company, showed the following numbers on July 29th, 1868. Free, NH^3, per million, 0.01; albuminoid, NH^3, per million, 0.09. These numbers will serve to illustrate what the state of a tolerably clean river is.

Travelling down the river as far as London Bridge, we have found a very different state of things. The following are the figures.

Thames Water, mid-stream, at London Bridge.

	PARTS PER MILLION OF WATER.		
	Free, NH^3.		Albuminoid, NH^3.
August 1st, 1868 (noon), being about *one hour before high water* [269.5]	1.00	...	0.65
July 29th, 1861 (noon), *two hours after high water* [266]	1.55	...	1.00
July 31st, 1868 (4 P.M.), *four hours after high water* [186.2]	1.60	...	1.55

The figures in brackets are the number of grains of solid residue (mostly sea-salt) left by a gallon of the different waters, and serve to show the influence of the state of the tide on the water of the river at London Bridge. The first point which arrests our attention, on comparing these with the foregoing numbers, is the enormous increase in free and albuminoid ammonia. The albuminoid ammonia at London Bridge attains to tenfold the amount present at Windsor. As has been shown (*Water Analysis*, by Wanklyn and Chapman), the amount of albuminoid ammonia, multiplied by ten, is equal to the amount of organic nitrogenous matter. Accordingly, the amount of organic nitrogenous matter at London Bridge attains to fifteen parts in a million of water, or about one grain per gallon. On making a critical examination of the different numbers for the water at London Bridge, it will be seen that the defilement of the river must be mainly owing to what is cast into it above London Bridge, and not to washing back of the sewage discharged at Barking. There is no doubt that regurgitation does occur; but these figures exhibit very clearly that the tide, carrying with it whatever is washed back, is much cleaner than the river proper at London Bridge.

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AMONG the victims of the heat-epidemic in New York is W. G. T. Morton, the dentist, whom Jackson associated with himself on the first experiments with ether as an anæsthetic. In speaking of the discovery of anæsthesia last week, we used the name of Wells for that of Jackson.

MR. WILLIAM SHARLER, executor of a deceased lady named Coulter, aged 75, having disputed the modest claim of £5 for an operation for strangulated hernia performed for the relief of the deceased, was condemned, in the Brompton County Court on Saturday, to pay the amount claimed, which the judge (Sir Eardley Wilmot) observed was an extremely moderate charge, and the costs—total £11.

THE PRINCESS LOUIS OF HESSE.

THE accouchement of Her Royal Highness the Princess Alice, Princess Louis of Hesse, is expected in November. Her Royal Highness has, on previous occasions, availed herself of the services of Dr. Priestley; but, in consideration of the increasing engagements of that physician, she has considerately allowed his place to be filled this year by Dr. Brodie, who will be enabled to stay during the month with less sacrifice.

SCARLET FEVER AT GUILDFORD.

AN epidemic of scarlet fever is prevailing at Guildford, which was last year the scene of an epidemic of typhoid fever. The present epidemic, however, appears to be much more diffused, the number of cases being estimated at 300, and the deaths 15; whereas, in last year's epidemic, the cases were about 250 or 260, and the deaths were only 5 or 6. It appears that Guildford, notwithstanding last year's warning, is still in a very bad sanitary state. The river is described to be no better than a sewer, and a curse, instead of a blessing, to the dwellers on its banks. The water-supply, which was so defective, is again complained of; and the drainage is stated to be disgraceful. Nuisances also seem to abound; and the property of one of the members of the Board is described to be "simply a disgrace". It behoves the authorities to see to this matter; for, with the present heat, such conditions can hardly fail to be most disastrous to the inhabitants.

NEUTRAL CARBONATE OF AMMONIUM.

THE existence of the neutral carbonate of ammonium is announced, and the properties of this long wanted salt described, by Dr. Divers in the current number of the *Philosophical Magazine.* We need hardly remind our readers that the ammoniæ carbonas of the *Pharmacopœia* is an anhydro-sesquicarbonate of ammonium, and not a combination of equivalent quantities of ammonia and carbonic acid. Dr. Divers states that the neutral or normal carbonate is a crystalline substance, of ammoniacal odour, passing rapidly to the state of bicarbonate, very soluble in water, and sparingly soluble in rectified spirit.

THE MEDICAL ARRANGEMENTS AT SHOEBURYNESS.

THE medical arrangements at the National Artillery Association Camp are somewhat similar to those of former years. In the absence of Staff-Surgeon J. B. Thomson of Ramsgate, Surgeon Ticehurst, of the Hastings Volunteers, assumes the charge of the medical arrangements, with Assistant-Surgeon Davies, Rye Artillery Volunteers. These gentlemen are in sole charge of the volunteer camp, and not, as at Wimbledon, under the superintendence of a medical officer of the regular army. They volunteer their services; but all expenses incurred are defrayed by the Association. There is, however, no regular hospital; serious cases having to be sent to the garrison hospital, where, by the courtesy of the army medical officers, they still remain under the care of the volunteer surgeons.

SOCIAL DIALECTICS.

WE publish in another column a communication from Mr. Acton on the subject of the extract from a report of the proceedings of this Society published elsewhere, on which we commented last week. Dr. Edmunds, one of those whose names were mentioned in the report referrred to as being present at one of the two meetings, and in our extract from it, wishes us to intimate that he would not by any means be a party to assigning to the profession any such anti-genetic functions, or such as they would be likely to repudiate. Another medical member also requests us to state that he is not disposed to remain connected with a Society which gravely discusses the propriety of assigning to medical men the intimated function of teaching females how to indulge their passions and limit their families. We publish with great satisfaction this protest, which we think honourable to the authors of it.

THE LOCAL OFFICERS AT OXFORD.

It is impossible to allow the Oxford meeting to pass over without endeavouring to express that sense of the great exertions of individuals by which alone a meeting of such extended proportions was successfully conducted—its creature comforts and its intellectual activity equally attended to. The President, Dr. Acland, proved himself more than equal to a great occasion. Nothing could surpass the earnest kindness, the tact and generosity, with which he threw himself into the onerous duties of his post. But for his influence with the University, the meeting would have been an impossibility. But for his exertions, it would hardly have been so brilliantly successful. Dr. Acland was most fortunate, and conferred a great benefit upon the Association by enlisting the services, as Honorary Secretaries, of Mr. Edward Chapman, M.A., Merton College, Dr. Gray, and Dr. Tuckwell. The Association specially marked its sense of the singular earnestness, ability, and energy with which Mr. Chapman threw himself into the task of organisation and the work of preparation for the meeting, by electing him on its first list of Honorary Fellows, and into a Society in which any man may be proud to find himself. Mr. Chapman's services call for the warmer acknowledgment, that, not being himself a member of our profession, but a distinguished teacher of physical science, his labours have afforded a special pledge of sympathy with our objects. Dr. Gray and Dr. Tuckwell have been unwearied in their labours. Dr. Gray has devoted himself to the organisation of the Annual Museum, which was created for the first time at this meeting. Mr. Freeborn, acting as Treasurer, has catered with zeal for the creature comforts of visitors. Others have aided, probably, without our being aware of all that they have done for us. To them, as to the gentlemen whom we have named, the feelings of all our members will be one of thankful recognition.

A BURMESE MEDICAL MISSIONARY.

THOSE of our readers who are interested in the progress of medical missions in India, will welcome the intelligence that a youth named Mowng Shaw Loo has recently returned from America, where he went, about ten years ago, to qualify himself as a medical missionary, with a view to practising his profession, and preaching Christianity amongst his countrymen in Burmah. In 1858, says the *Indian Medical Gazette*, young Loo, then a boy of 16, impelled by a love of knowledge and a desire to benefit his countrymen by true religious instruction, and stimulated by Mrs. Ingolds, left the little school in Calcutta where he was being educated, and embarked as a cabin-boy on board a vessel bound for America. There he took service as a gardener, educated himself at the University of Lewisberg in Pennsylvania, and finally, by the assistance of friends and the profits of some lectures on Burmah, took the degrees of B.A. and M.A. there. He subsequently graduated in medicine at the Medical College of Cleveland, Ohio. Dr. Loo lately landed in Calcutta from the *Nubia*, on board of which vessel he delivered one of his lectures, and where he so succeeded in securing the esteem of his fellow passengers, that, before landing, they presented him with a purse of sovereigns, coupled with a testimonial conveying their appreciation of his conduct.

A CASE FOR COMPULSION.

THE scandalous deficiencies of the Cockermouth Workhouse Infirmary have been the subject of many reports. The medical officer and—sooth to say—the Poor-law inspector are at one upon this subject, and agree in urgently recommending sufficient space to prevent overcrowding the sick; means of disinfecting and purifying bedding, which, it seems, are "much wanted at present"; and the removal of the male sick people from the immediate vicinity of the stone-breakers, "the noise of whose hammers immediately underneath or in close proximity to their beds is," it is gently observed, "sometimes very objectionable;" and one trained nurse, at least, to supervise the paupers' nurses. Very moderate suggestions these. The guardians, however, will have none of it. Some of them, at least, are going to delay the whole thing as much as possible, and apparently to do as little as possible. A report is still "in preparation"; and one of them expressed the hope that it "would keep a good while yet".

PREVENTIBLE DISEASE.

FORTY-SEVEN deaths were registered from small-pox in Sheffield during the last quarter alone—to the great disgrace of the local authorities of the town. The laxity in carrying out vaccination has for long cost Sheffield dear.

CIVIL LIST PENSIONS.

THE following are among the pensions granted between 20 June, 1867, and 20th June, 1868, and charged upon the Civil List:—Miss Emily Southwood Smith, £60; in consideration of the valuable and gratuitous services of her father, the late Dr. Southwood Smith, in the cause of sanitary reform. Mrs. Sarah Faraday (widow), and Miss Jane Barnard (niece), of the late Professor Faraday, £150; in consideration of the services rendered by him to chemical science. Dame Jane Kerk Brewster, £200; in consideration of the eminent services rendered to science by her late husband, Sir David Brewster.

DAMAGES AGAINST A SURGEON.

ONE hundred and fifty pounds damages have been awarded by a country jury to a Mr. Spear, against Mr. Doidge, a surgeon at Lifton, for alleged want of skill in treating certain injuries of the arm. After completely reading through the evidence in various reports of the case —in one at great length—and submitting it to highly skilled criticism, we are still lost in astonishment at a verdict which seems to us contrary to the facts, and in opposition to every principle of equity. If a quack kills a child with his one panacea of cayenne pepper and lobelia, if a bone-setter lances an aneurism or ruins a limb, he invariably escapes, on the ground that he used his best skill. Here the treatment of a difficult case of fracture with dislocation was conducted so as to meet the approval of eminent surgeons such as Mr. De la Garde, and yet the surgeon is fined for results which appear to have been altogether beyond his control. On the face of the facts as reported, we cannot but warmly sympathise with Mr. Doidge, who seems to suffer under a singular hardship.

HERBALISM.

ON Wednesday week, an inquest was held in Oxford Street, Whitechapel, on the body of Alice Betsworth, aged one year. Deceased was seized with a bowel complaint, and died in convulsions. It had been treated with lobelia by a herbalist named Stephens, and the inquest had consequently been held. The medical evidence went to show that death had resulted from natural causes, and a verdict to that effect was returned. Stephens, who was very indignant at the proceedings and some of the evidence of the medical witness, was put out of court by order of the coroner.

THE ACTION AND TREATMENT OF COBRA-POISON.

SURGEON-MAJOR Charles B. Francis, of the Indian Army, has been experimenting with a view to investigate the action of cobra-poison and the discovery of an antidote. He has established that the ichneumon or mungosse, vulgarly supposed to be invulnerable, will, when fairly bitten, die from the effects of cobra-poison, exhibiting the same symptoms as other animals; that harmless snakes, bitten by a cobra, die; but that, when cobras are made to bite each other, they do not suffer. This last is a very nice experiment to perform, as they have each to be held by the neck, with the thumb well pressed upon the back of the head, and so approached to each other, and to fight till the jaws are well locked together. As to treatment, while no direct antidote is known, two remedies are of the highest value: stimulants, as ammonia, which prevent life from becoming extinct while the poison is wearing itself out; and continued and forced exertion. In all the cases to which Dr. Francis has been called, where measures having for their object the prevention of lethargy were fully aimed at, the result was highly satisfactory. Dr. Fayrer and Dr. Francis do not confirm the changes described by Dr. Halford in the blood of animals dying after the bite of the cobra.

BABY-FARMING.

A COUNTRY correspondent forwards us the following illustration of baby-farming, with improper feeding, as a cause of excessive mortality. —Mrs. S., aged 65, the wife of a pensioner, has had six children; only one son is now living. Of late years she has taken in illegitimate children to nurse and feed. She receives 2s. 6d. a week with each; 3s. with the last. Three have died under four months; one lived nine months. She has had charge of eight. She feeds them with bread-and-water sop, with a little sugar and butter; sago sometimes, boiled with the bread; no milk. She feeds them four or five times a day. She washes them all over once a day with cold water; uses warm water when they are delicate.

THE CONFERRING OF HONORARY DEGREES AT OXFORD.

THE interesting ceremony of conferring honorary degrees on some of the more distinguished members of the British Medical Association took place in the Sheldonian Theatre, at half-past ten o'clock on Wednesday morning. Long before that hour, the seats appropriated to the ladies were filled with eager occupants, who, by the bright colours of their dresses, assisted in no little degree to enliven the general effect of the scene. In the body of the theatre was a large assemblage of the members of the Association, who appeared to take a deep interest in the proceedings of the day. Punctually at the hour fixed, the Vice-Chancellor, preceded by the bedals and mace-bearers, and attended by some of the more distinguished professors and heads of houses, wearing their robes of state, entered the theatre. They had no sooner taken their seats than the great central doors of the theatre were thrown open, and the six gentlemen, on whom the coveted honour of D.C.L. was about to be conferred, were seen to approach the chair of state occupied by the Vice-Chancellor. The following is the order in which they were introduced by Sir Travers Twiss: Sir Charles Locock, Bart., M.D., F.R.S.; the Rev. Samuel Haughton, M.D., F.R.S.; Dr. Gull; Mr. James Paget, F.R.S.; Mr. John Simon, F.R.S.; and Mr. James Syme, F.R.S. In presenting each of these gentlemen to the Vice-Chancellor, Sir Travers Twiss, in a few appropriate and finished Latin sentences, referred to the direction their labours had taken in the advancement of science. They were all well received; and an allusion to the successful issue of Mr. Paget's attendance on the Princess of Wales drew forth applause which was both long and general.

INSURANCE APPOINTMENTS.

A CASE is now pending at Guildhall in which the promoter of the British Alliance Assurance Corporation (Limited) is charged with obtaining £100 from Dr. Bartlett, Kent House, Stoke Newington, and 15, Percy Circus, under false pretences. He had paid it in consequence of an advertisement in the *Lancet* on March 14th last: "Wanted, by an insurance company, two medical officers; salary, first year, £50 and fees; second year, £100 and fees; must invest £100.—Apply X, 75, Fleet Street." Rather a coarse bait; but still, it seems, taking. Dr. Bartlett's investment has proved anything but remunerative. He had examined half-a-dozen persons but got nothing in return. This was the first hearing of the charge, and a remand was ordered; the defence was not entered into.

LUNACY IN IRELAND.

THE annual report of the lunacy inspectors on the condition of lunatic asylums and of the insane in Ireland during the year which ended on the 31st December last, has just been published. There were 9,086 registered lunatics in Ireland last year, and 6,564 lunatics at large, making a total of 15,650. It appears that there were 5,070 lunatic inmates resident in district asylums on 31st December, 1866, and that there were admitted in 1867, 1,527 patients, giving a total of 6,597 under treatment during the year, of whom 638 were discharged recovered; 179 improved; 97 unimproved; and that 465 deaths occurred. A marked improvement appears in the per-centage of the recoveries on the number admitted; the per-centage last year being 41.78 against 37.50 the previous year; this is a very satisfactory result. There has at the same time been a considerable increase in the death-rate, the total number of deaths being 464 for the past, and 409 for the previous year, or 2 per cent. in favour of the former year. The explanation of the higher death-rate is to be found in the fact that, owing in a great measure to the unprecedented severity of the weather in the spring, a greater number of old and effete cases succumbed during 1867 than in the previous year in several asylums. Only four deaths from accidental causes or suicide occurred. The Earl of Mayo's Act (30th and 31st Vic., c. 118) has completely changed the whole system as regards the detention of lunatics in gaols, by the repeal of the clauses in previous statutes, empowering justices to commit lunatics alleged to be dangerous, to prison, and by enacting that henceforth such lunatics shall be committed direct to the asylum of the county or district in which they shall have been apprehended. The total number of lunatics in custody at the end of the year 1867 was 334, being precisely the same as the preceding year; of these 319 had been committed as "dangerous," and 15 were criminal lunatics. No less that 634 of the former class were committed to prison in 1867, giving a total of 950 persons confined in gaols during the year under warrant of justices, alleged to be dangerously insane. Of these, 365 were transferred to district asylums, 218 received their discharge from the committing magistrates, 26 were otherwise removed, and 22 died, making a total of 631 of this class who passed through the gaols during the year, as against 853 the previous year. The number of criminal lunatics, under which term is included persons acquitted of offences on the ground of insanity, persons under sentence of imprisonment or penal servitude who became insane in gaol, and all others not committed as "dangerous lunatics," in custody during the year, was 76, of whom 49 were removed to asylums, 3 were discharged, 4 were otherwise removed, and 2 died, leaving 15 still in custody at the close of the year.

THE PROGRESS OF THE CLUB QUESTION.

A RECENT result of the club movement has been an effort of some members of the Intent Lodge of the Manchester Unity, Independent Order of Odd Fellows, to meet the claim for a higher remuneration by putting up the office of medical officer to the lowest tender. The existing medical officers, Mr. Terry and Dr. Bryan, tendered their services at a contract of five shillings per head per annum, the former contract having been four shillings. The course taken led to a contest, and Mr. Flewitt seems to have tendered at the old rate. The policy of the club in setting one man's interest against the other is, of course, what must occasionally be expected, and is, from their point of view, quite fair, if, from higher considerations, neither equitable nor politic. But we think Mr. Flewitt owes some explanations of his course in tendering at the lower rate, and undercutting the existing medical officers, who were nevertheless, we are glad to see, re-elected. Such a course is, we are happy to say, quite exceptional, and, we hope, will have no imitators under any circumstances. Here, on the very face of the simplest version of the facts, unity is strength, and tends to the common good. It is in the best interests of each sick member of the club, that the club, as a whole, should secure able services, and pay adequately for them. Putting medical attendance up to tender is a proceeding injurious to themselves, and one which it is disgraceful to our profession to recognise or foster.

A DEFENCE OF ALCOHOL.

IN the Appendix by Dr. Thudichum to Mr. Simon's Tenth Report to the Privy Council, he discusses Alcohol in Relation to the Chemistry of the Human Body. While admitting, as established beyond doubt, that the habit of drinking large quantities of spirits and beer is to be deprecated as highly dangerous and objectionable, he adds: "But when from this the conclusion is drawn, that alcohol ought altogether to be abandoned, and that we all ought to do without any alcohol, I must say that that is one of the most overstrained propositions that could be made. Alcohol, when we have worked and are fatigued, is a great restorative, and stimulant, and food, and one of the greatest necessities of human life. Perhaps there has been no time and no nation in which some kind of alcohol has not been used, and mostly in the largest number of cases beneficially."

REPORT

OF THE

COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION ON PARLIAMENTARY BILLS, 1867-68.

Presented at the Annual Meeting, held in Oxford, August 1868.

THE Committee, in presenting their Fifth Annual Report, have to regret that, in consequence of the precarious position of political parties, the imminence of a dissolution, and the protracted debates on the Scotch and Irish Reform Bills, the legislation on social subjects which immediately affect the states and interests of the profession has not received the attention it deserved.

In accordance with a recommendation of the Committee of Council, your Committee invited the Council of each Branch to nominate a representative on this Committee. Ten of the Branches responded by nominating the following gentlemen: W. J. Clement, Esq., M.P., of the Shropshire Branch; C. Holman, M.D., of the South-Eastern; H. J. Alford, Esq., of the West Somerset; George May, Esq., of the Reading; Dr. R. W. Falconer, of the Bath and Bristol; Thomas Taylor Griffith, Esq., of the North Wales; Dr. J. M. Bryan, of the South Midland; Samuel Berry, Esq., of the Birmingham and Midland Counties; Dr. L. E. Desmond, of the Lancashire and Cheshire; and Dr. G. H. Philipson, of the Northern Branch. These gentlemen have had copies of the Bills forwarded to them. Some have assisted at the discussions and proceedings of the Committee; others have forwarded valuable suggestions and recommendations.

Vaccination Bill.—Towards the end of last session, your Committee bestowed considerable attention on the Vaccination Bill; and in their last Annual Report, they pledged themselves to endeavour to get the objectionable clauses removed in the House of Lords. Lord Portman and the Earl of Cork kindly undertook to advocate the amendments of your Committee. They induced the House to refer the Bill to a Select Committee, which introduced several amendments; but was unable, by the rules of the House, to introduce the chief of our amendments, because they related to fees and penalties.

On the return of the Bill to the House of Commons, with a view to postpone legislation on the subject, Mr. Vanderbyl moved that the Lords' amendments be taken into consideration three months hence. This motion, having been postponed on three or four occasions (when Mr. Vanderbyl's supporters were present), was finally negatived in a thin house about three o'clock in the morning.

Your Committee regret that this measure has become law in its present shape, because they fear its accumulated penalties, and its unnecessarily restrictive and coercive provisions, will prejudice public opinion against the principle of compulsory vaccination itself, and will tend to restrict the practice of vaccination.

Artizans', etc., Dwellings Bill.—During the present session, the Committee's attention was early directed to a Bill introduced by Mr. M'Cullagh Torrens, to provide better dwellings for artizans and labourers. It proposed that, in districts to which the Act applied, an Officer of Health, not necessarily a medical man, should be appointed by the local authority to take the initiative in putting the Act into operation.

The powers of the Act for the compulsory purchase, demolition, and reconstruction of unwholesome dwellings, were very great; it seemed, therefore, desirable that the Health Officer should be thoroughly competent to form a sound opinion as to the sanitary state of the houses to be dealt with, and that he should be, as far as possible, independent of local influence.

Your Committee, therefore, endeavoured to get it enacted that the Health Officer should be a registered medical practitioner, and that his salary and removal should be subject to the approval of the Home Secretary or the Health Department of the Privy Council. Several members of the House of Commons were in vain solicited to undertake these amendments. They were submitted to the Select Committee of the House of Lords, who greatly limited and improved the definition of "Officer of Health"; and, although they did not restrict it to duly qualified medical practitioners, your Committee trust that in practice none but medical men will be appointed Officers of Health under the Act.

In reference to the appointment, they agreed to the following clause (No. IV). "If, in any place to which this Act applied, there is no Officer of Health within the meaning of this Act, the local authority, with the approval of the Poor-law Board, shall forthwith appoint such officer for such period as shall be necessary, shall assign him his duties, and pay him such salary or emolument out of the local rate as they, with such approval as aforesaid, shall think fit. The local authority, with the like approval as aforesaid, may from time to time remove any officer appointed under this section, and, in manner aforesaid, appoint another officer in his place."

The House of Commons has substituted, with the Lords' sanction, the Secretary of State for the Home Department for the Poor-law Board in the above clause. The thanks of the profession and the public are eminently due to Dr. Stewart, for the time and thought he has devoted to this and other questions of sanitary legislation.

Medical Practitioners (Colonies) Bill.—A Bill was introduced by the Secretary of State for the Colonies into the House of Lords, to amend the law relating to medical practitioners in the colonies, which not only limited the field of practice of future registered medical men to the mother country, but also deprived every existing registered practitioner of his right to practice his profession in any part of the British Empire.

A deputation from your Committee, simultaneously with one from the General Medical Council, waited on his Grace the Duke of Buckingham and Chandos, who at once admitted the impolicy and injustice of the clause in question, which, he said, had been substituted at the Home Office for a very different one that had been originally drafted at the Colonial Office. His Grace explained that all the colonies asked for was power to enforce registration of medical practitioners within their own jurisdictions. He agreed, therefore, with the approval of your deputation, to substitute the following for the objectionable clauses. "Every colonial legislature shall have full power, from time to time, to make laws for the purpose of enforcing the registration within its jurisdiction of persons who have been registered under the Medical Act, anything in the said Act to the contrary notwithstanding. Provided, however, that any person who has been duly registered under the Medical Act shall be entitled to be registered in any colony, upon payment of the fees (if any) required for such registration, and upon proof in such manner as the said colonial legislature shall direct of his registration under the said Act."

Poor Relief Bill.—Your Committee have also had under consideration a Bill introduced into the House of Lords, entitled "An Act to make further Amendments in the Laws for the Relief of the Poor." The only clause that seemed to affect, and that indirectly, the Poor-law medical officers, was Clause IX, which enabled the Poor-law Board to appoint a paid Visitor for workhouses; but, simultaneously with the introduction of this Bill, there appeared a General Order from the Poor-law Board calling upon the workhouse medical officer to perform some of the duties of a house-steward, matron, and inspector, without any additional emolument. Your Committee, entertaining the opinion that the chief defect in both the out-door and in-door Poor-law system is the absence of adequate medical inspection, and the imperfect representation of medical interests at the Poor-law Board, waited upon the Earl of Devon in a numerously attended deputation, and urged the necessity of increased medical sanitary supervision in both the out-door and in-door departments of medical relief, and the establishment of a medical department in the Poor-law Board, to consist of a council of the Medical Inspectors, with an administrative head who should be a member of the Poor-law Board, as is the case in Ireland. His lordship received the deputation with great courtesy, and fully discussed the subject with them. He promised, although he did not himself agree with the views expressed by the deputation, that he would convey them; and advised the deputation itself to communicate them to the Select Committee of the Lords that was sitting upon the Poor Relief Bill.

Your Committee requested their Honorary Secretary to make arrangements for having evidence on the point submitted; and Mr. Ernest Hart kindly undertook to represent the Committee in giving evidence, etc., to the Select Committee. The Committee did not take any evidence; but Mr. Hart communicated fully with the members of the Committee on the subject; and the very satisfactory result has been that the Select Committee, an unusually large one, resolved, with only one dissentient, the President of the Poor-law Board, on the motion of the Earl of Kimberley, that the following resolution be added to their report:—"That, in the opinion of this Committee, it is desirable, in order to secure great efficiency in the administration of the Poor-law, that the number of inspectors appointed by the Poor-law Board should be increased, and that a certain number of such inspectors should be specially qualified by medical knowledge to report as to the relief of the sick poor."

Your Committee cannot doubt but that this recommendation, carried by so large a majority of a Select Committee of the Lords, and in favour of which a very large number of the other house of the legislature spoke at a deputation from the Workhouse Infirmary Association, which was received by the President of the Poor-law Board on the 21st of March, 1868, will have great weight, and be speedily carried into effect by the Poor-law Board.

Pharmacy Bill.—Somewhat late in the session, a Bill promoted by the Pharmaceutical Society was introduced into the House of Lords by Earl Granville, for regulating the sale of poisons, and for regulating the qualifications of chemists and druggists. The main object of the measure is to restrict the retail sale of poisons and the compounding of medicines to such traders only as have been examined and registered by the Council of the Pharmaceutical Society. Clause I enacts that, "from and after the 31st day of December, 1868, it shall be unlawful for any person to sell, or keep open shop for retailing, dispensing, or compounding poisons, or to assume or use the title of 'chemist and druggist', or 'chemist', or 'druggist', or 'pharmacist', or 'dispensing chemist' or 'druggist', in any part of Great Britain, unless such person shall be a pharmaceutical chemist or a chemist and druggist within the meaning of this Act, and be registered under this Act, and conform to such regulations as to the keeping and selling of such poisons as may be prescribed by the Pharmaceutical Society, with the consent of the Privy Council."

It is noteworthy that Clause II entrusts the Council of the Pharmaceutical Society with a purely medical function; for it provides "that the Council of the Pharmaceutical Society may from time to time, by resolution, declare that any article in such resolution named ought to be deemed a poison within the meaning of this Act," etc.

A Select Committee of the House of Commons in 1865, to whom a Bill very similar to the present and a rival Bill were referred, reported, after taking evidence, that legislation was required to regulate the sale of poisons, and that the Government ought to frame a Bill for the purpose; but rejected a resolution in favour of the compulsory examination and registration of all chemists and druggists, which is the main object of the present measure. It was, therefore, the opinion of your Committee, that the principle of the Bill, as stated in the preamble—viz., "that it is expedient, for the safety of the public, that all persons, before commencing the business of a chemist and druggist, ought to be duly examined and registered"—was not proved, and ought not to be admitted without further investigation by a Select Committee. Your Committee petitioned the House of Commons to refer the Bill to a Select Committee. A notice of motion by the Vice-President of the Council to so refer it was withdrawn, and several amendments were placed on the notice-paper. Your Committee pressed the following amendments on the attention of Lord Robert Montagu, Mr. Lowe, Sir John Gray, Mr. Wild, and others interested in the measure.

1. That the schedule of poisons and the examination of chemists and druggists should be placed under the supervision of the General Medical Council, rather than of the Privy Council.

2. The following addition to Clause XVI, prohibitory of medical practice by chemists:—"And it shall not be lawful for any person registered under this Act to prescribe for any patient, or undertake the treatment of disease, or in any way assume to act as a medical practitioner; and any chemist and druggist so offending shall, on summary conviction, forfeit or pay a sum not exceeding £5." Instead of this, the following clause, proposed by the General Medical Council, was adopted:—"Provided always that registration under this Act shall not entitle any person so registered to practise medicine or surgery, or any branch of medicine or surgery;" which legally amounts to no prohibition at all.

3. A clause to stop the sale of patent, quack, or any other secret remedies; viz., that "no patent, quack, or secret medicine should be sold, under a penalty of £20, unless a sworn certificate of its composition were lodged with the registrar under this Act." This, your Committee believe, must be adopted, or the regulation for the sale of poisons such as opium will be extensively evaded by patent medicines.

Your Committee are not satisfied that this Bill will have the intended effect of protecting the public to a greater extent than hitherto from accidental and criminal poisoning, or from carelessness in dispensing patent medicines. On the other hand, they have some apprehension that it may, on the whole, lead to an increase of irregular medical practice by pharmaceutical chemists; and they are of opinion that the Pharmaceutical Society owes it to the public and the profession to provide against this danger by an appropriate bye-law. An amendment was introduced into the Bill at a late stage, restricting the right of medical practitioners in dispensing medicine to legally qualified apothecaries. This appears to your Committee to be a sudden and undesirable invasion of the vested rights of medical practitioners not members of the Apothecaries' Society, and which may lead to serious loss and inconvenience.

Your Committee have considered the draft of a Medical Acts Amendment Bill prepared by the General Medical Council, when the following resolution was unanimously agreed to, and a copy of it directed to be forwarded to the General Medical Council:—"Resolved: That this Committee, having considered the draft of a Medical Acts Amendment Bill prepared by the General Medical Council, are of opinion that it is most desirable that clauses should be introduced into the same providing for the *direct* representation of all registered medical practitioners on the Council."

Your Committee have also examined and approved of the provisions of the Poor-law and Medical Inspectors (Ireland) Bill, introduced by the Earl of Mayo, "to extend the powers of Poor-law inspectors and medical inspectors in Ireland; the Contagious Diseases Act (1866) Amendment Bill; and the Sanitary Act (1866) Amendment Bill.

The Representation of the People (Scotland) Bill was considered, so far as it affected the privileges of the profession; and your Committee are glad that it has passed without the proviso that appeared in last year's Bill, excluding about 1,300 of the St. Andrew's medical graduates, who obtained the M.D. degree before 1863, from the University franchise.

Baby-farming.—Your Committee observe with satisfaction that the Earl of Shaftesbury has founded a question in the House of Lords upon the investigations into the system of baby-farming carried out in the BRITISH MEDICAL JOURNAL; and that the President of the Privy Council has acknowledged the public service rendered by the JOURNAL in conducting this inquiry, and intimated the intention of the Government to adopt measures for registering the houses of persons taking these children to nurse, and periodically inspecting them by properly certified officers, as recommended by the editor of the JOURNAL. They concur in the opinion there expressed, that the district Poor-law medical officers may properly be entrusted with this duty; and it will be their duty to exert themselves in order to be adequately remunerated for it.

The Committee cannot conclude their report without expressing their deep sense of the obligation of the Association to their Honorary Secretary, Dr. Septimus Gibbon, for the great sacrifices of time and labour which he has made, and the ability and disinterested zeal which he has shown, in attending to the multifarious business of the Committee, and in protracted attendances at the Houses of Parliament and repeated interviews with members of both houses on the subject of the various clauses of the Bills above referred to. They are also much indebted to Dr. Stewart and Mr. Ernest Hart for their exertions in reference to various Bills, especially the Artisans' Dwellings and Poor Relief Bills.

METROPOLITAN POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE second annual general meeting of this association was held at the Freemasons' Tavern, under the presidency of Dr. Joseph Rogers. The council, in their report, state that "the association has made great progress during the past year. The number of members has been nearly doubled, many provincial medical officers having joined as associates. The cash balance in hand, after payment of all claims, amounts to about £25. It having been frequently suggested that the association should extend the field of its operations and admit to the right of membership all medical officers residing in England and Wales, your council have had under consideration for some months past, the propriety of submitting, at the annual meeting, a proposition to alter the title of the association by omitting the prefix 'Metropolitan.' They do not doubt that such a proposition would have been received with favour at any time, but much more so at the present time after the very successful meeting of London and provincial officers, held last month, under the chairmanship of Mr. W. J. Clement, M.P., F.R.C.S. At that great meeting—great by reason of the numbers, intelligence, and unanimity of those who attended it, many of whom came from distant parts of the kingdom—a strong and general wish to this effect was expressed. The actual proposition in favour of union emanated from Mr. Richard Griffin, of Weymouth who stated, in his letter to the chairman, that if it was carried he should feel justified in handing over the balance of £60., of the funds of the Poor-law Medical Reform Society, remaining in his hands as chairman. The only condition made by Mr. Griffin—a perfectly fair and natural one—was 'that the council should consist of an equal number of metropolitan and provincial members, chosen equally, if possible, from workhouse and district medical officers.' Your council have much pleasure in recommending the association to accept the proposition to alter the title to 'The Poor-law Medical Officers' Association,' and at the same time they begged to state that it is above all things desirable that the association should be established on the widest possible basis, for the just demands of so important a body as the medical officers—between 3,000 and 4000 in number—must be listened to if expressed with firmness and unanimity." The Chairman referred to the advantages of the association, and the advisability of extending its usefulness, and criticised the constitution of the Poor-law Board, which he stigmatised as being a sham, and asserted that until a change for the better took place, "the scandal and disgrace of the richest country in the world being eaten into by the blight of pauperism would not be put an end to." Dr. Fowler, of the East London Union, moved the following:—"That the Metropolitan Poor-law Medical Officers' Association and the Poor-law Medical Reform Association be united, under the title of 'The Poor-law Medical Officers' Association,' and that the council shall consist equally of metropolitan and provincial members, and, if possible, of an equal number of workhouse and district medical officers of each class." The resolution was agreed to, and a vote of thanks to the Chairman terminated the proceedings. [illegible]

THE POOR-LAW RELIEF BILL: MEDICAL INSPECTORS.

The *Pall Mall Gazette*, to which the cause of Poor-law Medical Reform is under the deepest obligations, has the following.

When the Poor Relief Bill was referred to a Select Committee of the House of Lords, that Committee considered it to be an essential part of any substantial measure of reform, and, indeed, a condition precedent to increasing the powers of the Poor-law Board, that the staff entrusted with the enlarged compulsory powers should be thoroughly efficient and technically instructed in the matters on which they were to sit in judgment. Although it was objected by the Government that clauses with this object could not properly be introduced into the bill, nevertheless, the question having been raised in the Select Committee on the bill, the following special resolution was proposed by Lord Kimberley at the close of the sittings—"That, in the opinion of this Committee, it is desirable, in order to secure greater efficiency in the administration of the Poor-law, that the number of inspectors appointed by the Poor-law Board should be increased, and that a certain number of such inspectors should be specially qualified by medical knowledge, to report as to the relief of the sick poor." This resolution was carried by the votes of the Archbishop of York, Earl of Denbigh, Earl of Carnarvon, Earl of Kimberley, Viscount Eversley, Lord Egerton, and Lord Northbrook, the President of the Poor-law Board standing alone in a minority of one, and representing the formidable obstructiveness of the department. The medical inspection of the workhouse infirmaries is a security which public opinion has unanimously demanded. It was urged upon Lord Devon with the utmost force by a deputation from the Workhouse Infirmaries Association, accompanied by upwards of forty members of the House of Commons, of which the Archbishop of York, Sir John Simeon, Mr. Earnest Hart, and Mr. Percy Wyndham were the spokesmen. It might have been supposed that the question was settled, and it was under this impression that the members of Parliament who so earnestly pressed the appointment of medical inspectors upon Lord Devon allowed the Poor Relief Bill to pass through the House without obstruction, and even cordially assisted the Government in their difficulties with some of the clauses. There is, however, in this department a singular obstinacy of determination "not to do it" if any degree of stubborn resistance or wily stratagem can avail. Mr. Hardy was a man of masculine vigour, and not to be resisted, and he insisted in appointing a medical inspector for London as a preliminary measure; and carrying out a small revolution. Lord Devon is no match for his permanent secretary, and Mr. Fleming is doing his best at the fag end of the session to deprive the country of the skilled and intelligent inspection which has been accorded to London. He has invented a patent plan of seeming to grant something, while in reality it leaves the *status quo* untouched. He proposes to make a list of practitioners who may be consulted, if careless or incompetent inspectors think it necessary. In other words, the gentlemen who have proved that they could not see in years what medical eyes have seen at the first glance, are, by an official inspiration, to know when they cannot see what they ought, and what it is that they have not seen; and by this mysterious intuition to take "when necessary" counsel upon matters as to the existence of which they have already proved themselves utterly blind. The Treasury will, we hope, not fail to see the excessive folly of this suggestion. It is a miserable device of perverse and shuffling officialism. Surely there must be some one capable of saving the Poor-law administration from taking a course which is at once disrespectful to Parliament, injurious to the country, and repugnant to common sense.

BLOOD VASCULAR GLANDS.—Dr. Grandry communicates a long memoir on the structure of the suprarenal capsule, and of the pituitary and pineal glands (*Robin's Journal*, 1867, pp. 225, 389). He considers the central cavity of the capsule as a cadaveric alteration, and regards the pituitary and pineal bodies as essentially similar in structure to the suprarenal capsule.

THIRTY-SIXTH ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in OXFORD, August 4th, 5th, 6th, and 7th, 1868.

THE thirty-sixth annual meeting of the British Medical Association commenced on Tuesday, in the Hall of Christchurch, Oxford, under circumstances of unusually favourable promise, before a most brilliant and crowded audience of some hundreds. Upwards of five hundred members have attended this meeting. We give for the present a mere outline of a part of the proceedings, reserving a detailed report for our next number.

The chair was taken at eight o'clock on Tuesday evening by the retiring President, Dr. Stokes, of Dublin, who delivered a valedictory address, which is published at page 125. He then resigned the chair to his successor, Dr. ACLAND, of Oxford, who gave an address, which appears at page 125. Both Dr. Stokes and Dr. Acland were listened to with attention, and warmly applauded during the delivery of their addresses.

Dr. SIBSON moved that the thanks of the Association be given to Dr. Stokes for his conduct as president, and that he be elected vice-president of the Association.

Mr. PAGET seconded the resolution, which was carried with acclamation.

Dr. STOKES replied in a brief and graceful speech.

Mr. WATKIN WILLIAMS, General Secretary, read the following Report of Council.

"The Council, in presenting their Thirty-sixth Annual Report to the Members of the British Medical Association, congratulate them on revisiting the University of Oxford, after an interval of sixteen years, and on being presided over, at their Annual Meeting, by the distinguished Regius Professor of Medicine in the University.

"The Annual Meeting at Dublin last year was rendered remarkable in the annals of the Association by the character of its President, Dr. Stokes; by its international importance; by the reputation of the University within the precincts of which it met; by the establishment of Sectional Meetings; and by the scientific and practical value of the communications read at those Meetings. While the Council cannot but thus record the brilliancy and importance of that Meeting, they feel confident that the present Meeting will occupy a no less gratifying position in the history of the Association.

"The Council gladly avail themselves of this opportunity of conveying to the authorities of the University of Oxford their sincere and cordial thanks for the ample accommodation placed at the disposal of the Association for the transaction of its general and sectional business.

"It is with great pleasure that the Council have again to report a continued and considerable increase in the number of the Members of the Association. At the end of the year 1867 the number of Members was 3130. During the year 56 have died, 68 have resigned, and 111 have been erased for non-payment of Subscriptions. Since the 1st of January of the present year 621 Members have been admitted. At this time the total number of Members is 3627.

"The Treasurer's Statement, which was published in the BRITISH MEDICAL JOURNAL on the 9th of May, is appended to this Report, and shews a considerable increase in the receipts, and a satisfactory state of the finances of the Association.

"The Committee of Council have held their usual quarterly meetings, and their attention has been directed to several questions of importance, both as regards the general interests of the profession, and the special business of the Association.

"The Council consider it only a bare act of justice to acknowledge the unremitting attention which has been paid to every duty of his office by the President of the Council, Dr. Sibson.

"The Subcommittee, appointed by the Council in 1866 'to consider the mode by which the profession at large may be directly represented in the General Medical Council,' was re-appointed during the past year, and a deputation of the Subcommittee, consisting of Dr. Sibson, Dr. Waters (Chester), Mr. Southam, Dr. Simpson, Mr. Nunneley, and the General Secretary (Mr. Husband being unable to be present), had an interview, on the 30th of June, with the General Medical Council. At that interview the deputation presented a memorial in favour of the direct representation of the profession at large in the Medical Council, and they urged its object by arguments, the force of which appear to your Council to be unimpaired by any of the objections raised in the debate which followed in the Medical Council, as reported in the journals, where a resolution was carried to the effect 'that, under present circumstances, it would not be expedient for the Council to consider the propriety of attempting to obtain a change of constitution.' It would have been gratifying to your Council if the Medical Council, instead of passing this resolution, had availed themselves of the opportunity thus presented to them, and had commenced the amendment of the constitution of their own body by a movement from within.

"The Council are deeply impressed with the conviction that the direct representation of the large body of registered practitioners in the General Medical Council is an object of high professional importance, that should be steadily pressed by representations to the Government and to both branches of the legislature. They feel satisfied that they have faithfully interpreted, in this matter, the wishes of the profession, and they are convinced that the efforts of the Association will not be relaxed until this object is attained. They recommend that this subject should receive the best attention of the Oxford Meeting, and of the various Branch Meetings throughout the kingdom.

"The Committee on State Medicine, appointed last year in Dublin, commenced its duties before the close of the meeting, and has since then, in conjunction with a Committee appointed by the Social Science Association, held several meetings. On the 22nd of May, a large deputation from the British Medical and Social Science Associations was received by the Duke of Marlborough, the Right Honourable Gathorne Hardy, and the Earl of Devon, at the Privy Council Office, and a Memorial drawn up by the joint Committees, showing the necessity of a better administration of the laws relating to registration, medico-legal inquiries, and the improvement of the public health, was presented. The deputation was assured that the Government would give the subjects brought under their notice the best consideration.

"A Special Report from the joint Committees of the British Medical and Social Science Associations will be presented at this meeting, which will give the details of the important subjects that have been under their consideration.

"The Council, before leaving this part of their Report, desire cordially to acknowledge the great kindness and attention which Mr. Clive, M.P., has shewn in aiding the joint Committees in obtaining an interview with the Government.

"The Sectional Meetings, held for the first time at Dublin last year, were eminently successful. Their establishment had in fact become necessary, owing to the large number and important character of the papers presented to the Association. The want, however, of a section at which papers on State Medicine and Medical Policy could be read and discussed, was much felt. This want has, this year, been supplied by the formation of a Section on Public Medicine, and the Council anticipate that the meetings of that Section will be of deep interest.

"The Sectional Meetings have assumed so sudden and important a development, that the Committee of Council have appointed a Committee to consider and advise as to their future organization.

"The Committee appointed to consider 'The Action of Mercury,' having been requested to continue their inquiries, will present a Report to this Meeting.

"A Report will be presented by the Committee on the Observation and Registration of Disease.

"The recommendation of the Council in last year's Report, that one member from each Branch should be added to the Parliamentary Committee elected by the Metropolitan Counties Branch, has been complied with, and the grant of £10 towards their expenses will be paid to the Committee. The Report of this Committee will be presented to this meeting; and the Council recommend that in future the Parliamentary Committee, other than the representatives of the Branches, be appointed at the Annual Meeting.

"The several Branches of the Association are reported by the Honorary Secretaries to be in a satisfactory condition, and to have shewn themselves deeply interested in the Medico-legal and other questions, which at the present time are attracting the notice of the Profession. The questions of remuneration for attendance on Provident Sick Societies and of *gratuitous medical aid* have occupied the attention of the Members of the Association. This important movement originated at a Meeting of the Birmingham Branch. It spread thence throughout the country, and has already exercised a beneficial effect in raising the rate of remuneration in many districts, affording thus a marked example of the advantages of the organisation of the Association.

"The Council have much pleasure in stating that a new Branch has been formed for Cumberland and Westmoreland, and that one is in process of formation in South Hampshire. The Council again tender their grateful thanks to the Honorary Secretaries of the several Branches, whose exertions contribute so largely to the prosperity and welfare of the Association.

"A Report on the Benevolent Fund will be presented to this Meeting, and the Council earnestly recommend this Institution to the generous support of the Profession.

"The Council last year reported that Mr. Ernest Hart had been appointed to succeed Dr. Markham in the editorship of the JOURNAL. It is allowed that the character of the JOURNAL under the editorship of that gentleman has been greatly instrumental in adding to the numbers and influence of the Association.

"Two essays were received for the Hastings Medal, but your Council regret to announce that the adjudicators—Professor Stokes of Dublin, Dr. Paget of Cambridge, and Professor Gairdner of Glasgow—have reported that they do not consider either of them to possess sufficient merit; and they therefore advise the Medal to be withheld for this year.

"The subject for competition for 1869 is 'Resection of Joints.'

"The notice of motion given by Mr. Heckstall Smith *in re* Mr. Bonney will not come before the meeting, Mr. Bonney having retired from the Association.

"The rapid increase of the numbers of the Association, amounting to 1,200 new Members during the last eighteen months; the great importance and variety of professional subjects advanced and promoted during the year by the efforts of the Association, of the Branches, and the Committee of Council; the interest those subjects have awakened throughout the whole profession; and the attention given to the representations of the Association by the Government, the Medical Council, and the other important bodies before which they have been laid, afford evidence of the great and steadily developing influence and vitality of the Association. But whatever success has hitherto attended the Association, the Council would urge upon its members the necessity for a still greater increase in their numbers, so that the interests of the whole profession may be united in the Association, and its combined influence brought to bear on the onward progress of the just and honorable welfare of the profession of medicine."

Mr. CORDY BURROWS (Brighton) moved the reception and adoption of the Report.

Dr. JEAFFRESON (Leamington) seconded the motion.

Mr. GAMGEE (Birmingham) addressed the meeting at some length on the subject of the proceedings which had taken place with regard to the amendment of the constitution of the General Medical Council. Several other members also addressed the meeting; and the proposal of Mr. Burrows was unanimously adopted.

Dr. BURROWS moved—

"That the best thanks of the Association be given to the Subcommittee appointed for the purpose of obtaining direct representation of the registered members of the profession in the General Medical Council; that they be requested to continue their labours; and that they take the earliest opportunity of bringing the subject before Government and the legislature. Further, that the Committee of Council recommend the Branches to aid them by petitions to Parliament, and by the exertion of any private influence they may possess with members of the legislature."

The motion was carried; and the Committee was reappointed, with (on the proposal of Mr. Gamgee, and seconded by Mr. Husband) the addition of five names from the body of the meeting. The Committee consists of: E. Waters, M.D. (Chester); W. D. Husband, Esq. (York); G. Southam, Esq. (Manchester); H. Simpson, M.D. (Manchester); T. Nunneley, Esq. (Leeds); T. P. Heslop, M.D. (Birmingham); J. Russell, M.D. (Birmingham); J. C. Burrows, Esq. (Brighton); J. G. Davey, M.D. (Northwoods); J. S. Gamgee, Esq., Birmingham.

Dr. FALCONER proposed, Mr. SOUTHAM seconded, and it was unanimously resolved, that Mr. Watkin Williams be re-elected General Secretary.

On the motion of Mr. WATKIN WILLIAMS, Mr. Church of Bath and Dr. E. Long Fox of Clifton were elected auditors.

The Report of the Medical Benevolent Fund was read by Mr. WATKIN WILLIAMS; and, on the proposal of Sir WILLIAM WILDE (Dublin), seconded by Dr. WEBSTER (Dulwich), was received and adopted.

Mr. WATKIN WILLIAMS proposed the following addition to Law XIV, relating to the admission of members:—"Provided he shall have the votes of three-fourths of those present at such meeting." The proposal was adopted.

Dr. HENRY proposed the alteration in the laws relative to the admission of honorary members, of which notice has been given in the JOURNAL. The motion having been seconded, was unanimously adopted.

Dr. ROBERTS (Manchester) proposed, the Rev. Dr. BELL seconded, and it was resolved, that a Committee be appointed to consider the mode of electing the Committee of Council, and to report to the meeting before it close.

The meeting then adjourned.

On Wednesday, the second meeting was held in the Divinity School, the President in the chair.

On the motion of Mr. NUNNELEY (Leeds), seconded by Mr. HUSBAND, it was agreed that the meeting in 1869 should be held at Leeds, and that Charles Chadwick, M.D., should be the President-elect.

The following were then unanimously elected honorary members of the Association:—The Rev. Dr. Cookson, lately Vice-Chancellor of the University of Cambridge; Professor Sedgwick; Professor G. G. Stokes; Professor Airey; the Provost and the Vice-Provost of Trinity College, Dublin; the Rev. J. Carson, D.D., Senior Fellow of Trinity College; the Vice-Chancellor of the University of Oxford; the Dean of Christchurch; the Warden of New College; the Principal of St. Mary Hall; Sir Benjamin Brodie, Bart.; Professor Phillips; Professor Clifton; E. Chapman, Esq., M.A.; Dr. Duchenne de Boulogne; M. Marey; Professor Kiter Carus; Professor Gross; and Mr. Edwin Chadwick, C.B.

Dr. Stewart read the Report of the Joint-Committee of the British Medical and Social Science Association on State Medicine. The Report was adopted; and the Committee were thanked for their labours, and reappointed.

Professor Rolleston delivered an eloquent, able, and highly attractive Address on Physiology, which will be published next week.

At half-past ten, a convocation was held in the Sheldonian Theatre, where the honorary degree of D.C.L. was conferred on the following members of the Association:—Sir Charles Locock, Bart., M.D., F.R.S.; the Rev. Samuel Haughton, M.D., F.R.S.; William Withey Gull, M.D.; James Paget, F.R.S.; John Simon, F.R.S.; James Syme, F.R.S.

SECTION MEETINGS.

The following are abstracts of some of the papers read in the sections.

A. Medicine.—President, Sir William Jenner, Bart., M.D., F.R.S.; Secretaries, E. Long Fox, M.A., M.D., and W. Roberts, M.D.

On the Use of Ether and Etherised Cod-liver Oil in the Treatment of Phthisis. By Balthazar W. Foster, M.D.—Dr. Foster began by referring to the great difficulty of digesting fatty food, which distinguishes the great majority of phthisical patients. This defective assimilating power had hitherto been treated by incorrect or insufficient means. The only true method of treatment to be adopted in such cases should be directed to the organs, whose secretions are at fault. Physiology teaches that the digestion of fat is specially performed by the secretion of pancreas and the glands of small intestine. Dr. Foster had long sought for a means of influencing these glands, and at last had found most ample evidence in the works of Claude Bernard, that ether is capable of augmenting the pancreatic secretions to almost any degree. Bernard was accustomed, in his experiments, to give ether to animals, in order to obtain a good flow of pancreatic juice. Applying this discovery to the treatment of phthisis, Dr. Foster had met with most satisfactory results. The ether was given as a mixture sometimes, but generally in the form of etherised cod liver oil. Of the patients treated, and all observed over some months, some over two years, 42 per cent. improved under treatment, 30 per cent. remained stationary, and only 28 per cent. became worse; 12 per cent. of the cases treated presented all the evidence of the arrest of the disease. In no case were the symptoms and physical signs alone accepted as evidence of improvement, every case was weighed from week to week while under observation, and only a decided increase of weight in addition to other signs received as evidence.

On the Diagnosis of the Different Forms of Dyspnœa. By Hyde Salter, M.D.—The paper was in some sort complementary of some lectures on Dyspnœa delivered by the author at the College of Physicians two or three years ago. He stated, and showed by the recital of cases, that a want of precision in the diagnosis of the different forms of dyspnœa was extremely common, and yet that dyspnœa presented, in its different varieties, very distinct and clear characteristics for diagnosis. In illustration, he selected the four commonest forms of dyspnœa—that of heart-disease, asthma, bronchitis, and emphysema—and showed how, in each case, the peculiar features and circumstances of dyspnœa would enable an observer to detect at once to which disease it belonged. His observations were illustrated by tables, in which the distinctive characters of the contrasted dyspnœas were arranged in parallel columns.

Bromide and Bi-bromide of Mercury as Therapeutical Agents. By Protheroe Smith, M.D.—The paper commenced by a comparative view of the relative combinations of fluorine, chlorine, bromine, and iodine with mercury, both with regard to their affinity and per centage in each compound. It was also shown that the bromides are more active than the chlorides. Then followed some remarks on the action of the elements of the compound, viz:—bromide and mercury, in which was ascribed to Sir C. Locock the introduction of bromide of potassium to the profession. The author had used the bromide and bi-bromide of mercury for upwards of five years, and had found the bromide valuable as an efficient chologogue and purgative, promoting absorption of morbid tissue with less constitutional disturbance than from calomel, citing instances, and calling on members of the Association to aid him by their efforts further to investigate the subject and to prove his conclusions.

The Etiology of Phthisis. By P. Eade, M.D.—After alluding to the present state of our anatomical knowledge of tubercle, and to the recent experiments by inoculation, Dr. Eade endeavoured to shew that tubercle was essentially but an expression of feeble vitality and exhausted nerve-power, permitting the occurrence of an ill-regulated or unrestrained cell-growth or development. Cells (he said), more or less simple, were the original and lowest form in which animal life was presented. Higher animal structures were formed of such cells elaborated under the influence of more highly developed nervous centres. Any defect of these centres would tend to allow the body to be formed of less highly organised and vitalised tissues with a constant tendency to revert to their original form of cells. The subjects of congenital tuberculosis were feebly and flabbily formed, and their tissues had a constant tendency to disintegrate (proneness to ulcerations), and to develope new cell-structures (in lymphatic glands and as purulent discharges). The actual invasion of disease in tuberculously cachectic individuals was due to exhaustion of the nerve-force of the part affected. In acquired tuberculosis (which was chiefly of the lungs) a similar exhaustion of the peripheral nervous twigs was produced, either directly or more commonly by a reflex action from the surface. The part was thus at once reduced to a lower condition of life, and cell-growth was allowed to begin, either in spots as miliary tubercle, or in parts as tubercular consolidations. The cells were of feeble vitality, and hence tended rapidly to degenerate. They were possibly capable of reproduction. A close affinity existed between the cause of inflammation and tuberculisation of the lungs, the difference being that in the one case the effect produced was sudden or extensive and the patient healthy; in the other the effect was produced more slowly and the patient was congenitally cachectic or temporarily lowered in nervous tone.

Ergot of Rye in the Treatment of Neuralgia. By E. Woakes, M.D.—The object of this paper being to introduce the ergot of rye as a remedy in the treatment of neuralgia, a brief epitome of the writer's views of the pathology of this disease preceded the illustrative cases, this application of the drug being the direct corollary of his theory. Regarding shingles as more or less illustrative of all forms of neuralgia, the author referred the rash, and the pain, in it to the same cause; viz., effusion of liq. sanguinis from the ultimate branches of the artery in the track of which the symptoms appear. Tracing this artery to the skin in one direction, the effusion from a papillary arterial twig was seen to occasion a spot of herpes upon the cuticular surface of the papilla; tracing it in the direction of the corresponding sentient nerve, the fluid effused from the nutrient twigs (vasa nervosum) supplying it was found to occasion, by its mechanical disturbance of the sentient fibrillæ, the severe pain constituting the associated neuralgia. The cause of the effusion in such case was referred to a temporary suspension of the regulating influence exercised over the minute arteries by the sympathetic nerve-fibres distributed to them. It was this suspended function that the ergot was supposed to restore, and so to allow of the removal of the fluid from its pain-causing situation. Five cases were reported; one of severe neuralgia following shingles, one of sciatica of four months' duration, one of hemicrania, and two of ordinary tic; in all of which cure resulted in from four to six days after commencing with the ergot.

Notes on the Pathology and Therapeutics of Disorders of the Nervous System, accompanied with Excess of Motility. By W. Strange, M.D.—The author classed under this title Chorea, Hysteria, Epilepsy, Paralysis-agitans, Mimosa, and some forms of insanity. His object was to show, by a minute examination of the special symptoms of each, as well as from the general symptoms common to the whole group, that there was a family relationship between them all, and that their pathology must be looked for in the difference in the parts of the nervous system, rather than in any essential distinction between the morbid processes in each. Excess of motility showing a diminution rather than an excess of the nervous force, the treatment in all these disorders will be substantially the same; namely, by such means as should, 1, improve the quality of the blood; and 2, by presenting material easily assimilable by the nervous tissue. He had found the most rapid cures from the administration of alcohol, as food to the vesicular neurine, in frequent small doses (six to eighteen ounces daily), in chorea, hysteria, mimosa, etc., in conjunction, in some cases, with cod-liver oil, and from large doses of bromide of potassium in epilepsy.

B. Physiology.—President, Professor Rolleston, M.D., F.R.S.; Secretaries, W. S. Church, M.A., M.B., and Professor Beale, F.R.S.

On the Relative Claims of Bell and Magendie to the Merit of having Discovered the Functions of the Roots of the Spinal Nerves. By Robert M'Donnell, M.D., F.R.S.—Dr. M'Donnell stated that he had been led to inquire carefully into this subject by the observations lately made by MM. Vulpian, Claude Bernard, and others, who, contrary to the opinion generally received in this country and on the continent, claimed the discovery for Magendie. The author felt assured that however gladly British physiologists would claim for a compatriot the honour of having made this discovery, they would prefer doing what truth and justice required. After carefully analysing Bell's writings, he has come to the conclusion that previously to 1822 (when Majendie made his experiments, and published the results), Bell's written works contained no evidence that he conceived the idea that the posterior nerve-roots were sensitive, and the anterior purely motor. He (Dr. M'Donnell) assigned to Magendie and experimental physiology the merit of having discovered this fundamental fact in physiology. He had some difficulty in obtaining Bell's celebrated pamphlet of 1811, printed for circulation among the author's friends, and having obtained it through the kindness of Professor Turner, of Edinburgh, he submitted it to the judgment of several competent persons, who were invited to give their opinions independently of each other. All agreed that in this pamphlet, upon which Bell and his supporters rest their claims to his priority, there was absolutely nothing which could, in fairness, be supposed to indicate a knowledge of the true functions of the nerve-roots.

On Stammering with other Organs than those of Speech. By JAMES PAGET, Esq., F.R.S.—The essential characters of stammering, in the want of concord between muscles acting to expel something and muscles relaxing to let that something pass, were shown in certain diseases of the urinary organs, and of those of deglutition. The correspondences of the several sets of cases, especially in their mental relations, and the methods of treatment that they consequently required, were pointed out.

On the Anæsthetics of the Present Day. By A. ERNEST SANSOM, M.D., M.R.C.P.—The author reviewed the anæsthetics now employed with reference to their special advantages in special cases and circumstances. The employment of nitrogen proved how that anæsthesia could be induced by the mere deprivation of oxygen. It induced the accumulation of carbonic acid in the blood, so that its administration was really equivalent to the administration of carbonic acid. Nitrous oxide had shown special advantages in cases of dentistry. The author considered that it acted chiefly by filling the lungs with a gas which could not sustain the normal processes of aëration, but he thought that it also had a special action on the blood. He considered that great care should be used in its employment, and it should not be given to any patients suffering from pulmonary, cardiac, or cerebral affections; it should certainly not be employed for any prolonged operation, but to the dental surgeon it was a great boon, inducing a rapid anæsthesia and being followed by an immediate recovery. It should only be trusted in skilled hands and should then be used with caution. Inasmuch as both these agents induce their effects by the superinduction of an excess of carbonic acid in the blood, he recommended a renewed trial of this anæsthetic, which had been formerly employed with advantage. Briefly alluding to tetrachloride of carbon and bichloride of methylene, the author next turned to chloroform, the great danger of which was the large and unnecessary proportions which were administered. By a very large number of calculations, the author proved that by the common means adopted, atmospheres of from three to ten times the necessary strength were employed. He determined that the best diluent for chloroform is absolute alcohol; and if practitioners would use a mixture of equal parts of chloroform and alcohol, danger would be reduced to a minimum.

On Anæsthesia and the Mode of Action of Anæsthetics. By A. ERNEST SANSOM, M.D., M.R.C.P.—The author considered that it is particularly important now that much attention is directed to practical anæsthesia, to determine the *rationale* of action of anæsthetics. He criticised the theory of their direct action on the central ganglia of sensation, which he considered disproved by many facts. On the contrary, they presented in their action a complete similarity with the phenomena of deprivation of oxygen. Tracing the action of a typical anæsthetic, the author shewed that it acted both as a cardiac and vaso-motor stimulant: it contracted the systemic arteries, producing a condition of insufficient supply of arterial blood. Dr. Sansom entered into a critical examination of the analogies and correlations of this condition, shewing, first, an identity with cold and with galvanism, which by a similar action produced similar results; he traced the effect upon the capillary circulation, shewing that the velocity of the latter was diminished, but the blood was expressed towards the venous channels in which it accumulated, hence the distension of the right side of the heart witnessed in *post mortems.* Chloroform, however, when its vapour is insufficiently diluted with air, has the power of superinducing paralysis of the cardiac and vaso-motor forces—hence its danger. Anæsthetics act on the blood-corpuscle, especially in the hæmoglobin, impeding its oxygenation. The author concluded that anæsthetics produce these phenomena by inducing a suppression of oxidation in the body, 1, directly by acting on the blood; 2, indirectly, by modifying the forces by which the blood is circulated; and that they have no special action on sensory ganglia.

C. SURGERY.—President, JAMES PAGET, F.R.S.; Secretaries, T. P. TEALE, M.A., M.B., and W. STOKES, M.D.

On the Mortality arising from Abdominal Hernia, with Suggestions for its Diminution. By JOHN BIRKETT, Surgeon to Guy's Hospital.—The author quoted the returns of the Registrar-General to show that the death-rate from hernia in the London districts averaged 149 per annum; and in England, 826. The causes of death were stated to arise from prostration, peritonitis, and injury of the bowels; and the fatal results could only be averted by reducing the protrusion as quickly as possible by the taxis, and when that failed by operation. He especially deprecated delay and violence in replacing the hernia, both these circumstances producing many deaths annually.

On the Origin and Treatment of Stone in Boys. By THOMAS SMITH, F.R.C.S.—In this paper, the author referred the existence of stone in the bladder, for the most part, to defective secretion from certain organs, whereby the kidneys were forced to excrete more than their due share of refuse material; or to disarrangements of the digestive organs, whereby abnormal substances might be formed and added to the urine, or the natural urinary excreta might be formed in excess. He endeavoured to explain the frequency of stone among the children of the poor, and its rarity among those of the rich, and the equal liability of both classes to the disease in adult life. The ordinary and the unusual symptoms of stone were noticed. A case was related where the author had crushed a stone between his finger and a lithotomy-staff, thus relieving the child altogether of his disease. Attention was drawn to the great difference in the mortality of lithotomy, as drawn from general statistics, and as containing the experience of individual surgeons. As means whereby lithotomy might be facilitated and its mortality lessened, the author recommended that the bladder should be nearly empty at the time of operation; he described a method of manipulating the staff so as to diminish the size of the wound necessary for the extraction of the stone, and recommended the use of very long and slender forceps. The introduction of a cannula surrounded by a conical plug of lint immediately after the operation was strongly advocated, and cases were referred to in the author's experience where he believed life had been saved by this means. The paper had appended to it a table of twenty cases of lithotomy in boys.

Torsion of Arteries. By G. M. HUMPHRY, M.D., F.R.S.—In this paper, Professor Humphry gave the results of his experience of torsion of arteries after operations, as well as the results of experiments on animals, and on the arteries of man and animals after death. For many months he has practised torsion after all operations, including three amputations in the thigh, amputations in the leg, of the breast, excision of the knee, etc. It has answered quite well. There has been no after-hæmorrhage in any of the cases; the wounds have healed more quickly, and there has been less pain, than after the ligature. The operation is rather more troublesome, and requires more care and time, than the ligature. He simply seizes the end of the artery with strong forceps, and, holding the forceps in the axis of the vessels, twists till the portion included in the grasp is twisted off and the forceps are quite free. He believes this method to afford the greatest security, and does not recommend the practice of holding the vessel with a second pair of forceps above the part to be twisted. In the case of the smaller vessels, he strongly recommends torsion, as it enables the operator to secure any number without leaving in the wound any foreign substances or excitors of sloughing or suppuration. With regard to larger vessels, such as the femoral, additional experience is required before we can be assured that it is a sufficiently safe substitute for the ligature. In the process of torsion, as observed upon an artery twisted after death, the thick, inner, musculo-elastic coat is first severed, often as though it had been cut by a knife or ligature. As the torsion goes on, it is so compressed or squeezed by the twisting of the outer coat, that its divided edge is commonly turned up, reflected, into the tube of the artery, to a greater or less extent, as the resistance of the outer coat is more or less prolonged, forming a valvular or funnel-like projection into the vessel. Thus there are the two things—the inversion of the inner coat, and the twisting of the outer. It is upon the latter that reliance is to be placed for resistance to the flow of fluid from the vessel, inasmuch as its pressure causes and maintains the valvular inversion of the inner coat, and, further, by its own strength, offers a direct obstacle to the escape of the blood. This the professor has proved by injecting water, and connecting a column of mercury with the vessel. The fluid first distends the end of the vessel, untwisting it a little, so as to pass through the valvular opening or separated surfaces of the inner coat; then, coming into contact with the outer coat, distends it or unfurls it, or finds an escape through some weak point in its wall. Thus the strength and firm twisting of the outer coat, compressing the inner so as to prevent the passage of blood beyond it, and these withstanding the further escape of the fluid, give the measure of the resistance to the pressure of the column of fluid within the vessel. The amount of this resistance to the pressure of a column of mercury in the same vessel, twisted apparently in the same manner, varies a good deal. Sometimes from ten to twenty inches were borne; at others, not more than three or four. Professor Humphry had been unable to discover the cause of, or to prevent, this uncertainty; and it makes him speak with some hesitation as to the applicability of torsion to vessels of large size. In experimenting on the large arteries of animals, also, he has occasionally found the twisted vessel give way before the wound was closed, requiring it to be twisted again, which was ultimately done with success in every instance. Some improved mode of practising the operation may prevent this. If the vessel is so twisted as not to give way in the first instance, it is, so far as his observation goes, quite secure, and in the later stages even more so than the ligature, there being less liability to the ulcerative suppurative processes which are to some extent necessary attendants upon the ligature. Accordingly, the appearances found on examination of the wound, at various periods after the operation in animals, were much in favour of torsion.

On Improvements in Plastic Surgery. By MAURICE COLLIS, M.B.—Mr. Collis described his method of operating for vesico-vaginal fistulæ, by splitting the margins of the fissure and using quilled sutures. He also demonstrated a new mode of operating for hare-lip, the peculiarity of which consisted in utilising all the parings. He further advocated the use of chloroform in cleft-palate operations, and strongly recommended the propriety of saving the palate, and, if possible, the alveolar process and teeth in tumours of the superior maxilla. His paper was profusely illustrated.

The Results of the Operations for Lithotomy Performed at the Manchester Royal Infirmary from 1853 *to* 1868. By GEORGE SOUTHAM, F.R.C.S.Eng.—The paper gave the results of thirty-eight cases of lithotomy operated on by the author at the Manchester Royal Infirmary, all of which were successful except one, the subject of the fatal case being a man in his 79th year, with enlarged prostate; the calculus extracted weighed two ounces; has spiculated, and formed chiefly of oxalate of lime and lithic acid. The ages varied from one year and nine months to 79 years, and the weight of the stones from 9 grains to 5 ounces. The cases were not selected, except that no adult has submitted to the operation where the calculus was supposed to be under the average size, and the urinary organs in a favourable state for lithotrity, of which there were seven. Full details of thirty-two cases were given, eleven of which occurred in adults; in six of these the calculi varied in weight from 1½ to 5 ounces, and in five from 5½ to 7½ drachms. Taking into consideration that the most favourable adult cases were reserved for lithotrity, the author considered a mortality of one in thirty-eight proved that lithotomy is not the dangerous operation it is commonly held to be. He did not, however, wish to disparage lithotrity, which he considered the preferable operation, where the bladder-pustule and urethra were in a healthy condition, and the stone of average dimensions, and he generally adopted it in private practice; but where complications occur, and they are not of a nature to contraindicate operative interference, he believed lithotomy afforded the best prospect of preserving the lives of our patients. He pointed out some of the circumstances which he considered had contributed to the successful results in his cases. After alluding to the importance of preparatory treatment, several suggestions for facilitating the different stages of the operation were given. He advised free incisions through the skin, aveolar and adipose tissue, but those into the membranous and prostatic portion of the urethra should be very limited, the elasticity of the neck of the bladder in children and early manhood admitting of its free dilatation. To obviate the difficulty which somtimes occurs in reaching the urethra, he advised the direction of the knife to be altered according to the age of the patient. The pelvis of the child being smaller and placed more obliquely on the spine than in the adult, the bladder is almost an abdominal organ in early life, sinking into the pelvic cavity as this increases in capacity. Therefore, to find the urethra readily in children, the point of the knife should be directed obliquely upwards in a line with the inner border of the arch of the pubes; whilst in the adult it should be kept more horizontal. Additional facility in this stage of the operation is afforded by allowing the nail of the forefinger to grow longer than usual, which, passing more readily into the groove of the staff, becomes an excellent director for the point of the knife. Especial attention was paid to the prevention of the injurious effects of shock. Immediately the operations were completed, the patients were enveloped in a warm blanket, and on being placed in bed, bottles filled with hot water were applied to the feet and other parts of the body, until the sign of reaction set in. In the after treatment, the patients were allowed nutritious food as soon as the stomach was in a fit state to receive it. The paper was illustrated by drawings, and the calculi extracted were exhibited.

Ophthalmoscopic Signs of Constitutional Disease. By ERNEST HART, Esq.—He classified them as follows. 1. Amaurosis with appreciable lesions at fundus of eye. *a.* From intra-cranial lesions: cerebral tumours, meningitis, encephalitis and ranchissement, cerebral apoplexy, phlebitis of sinuses, hydrocephalus, concussion and compression, lesion of cerebellum, changes in insanity. *b.* From diseases of spinal cord and general nervous system: myelitis, general progressive paralysis, locomotor ataxy, epilepsy, chorea, cerebro-spinal meningitis. *c.* Disturbances in the circulatory system: embolism, metastatic choroiditis, hæmorrhage, leukæmia, heart-disease. *d.* Syphilis. *e.* Tuberculosis. *f.* Disturbances in urinary system: albuminuria, diabetes, oxaluria. *g.* From the action of certain medicinal and other agents: tobacco, alcohol, opium, lead. *h.* From disorders of the female sexual organs: pregnancy, hysteria, suppression of menses. *i.* During acute diseases: diphtheria, intermittent fever, cholera. 2. Sympathetic amaurosis, with no appreciable morbid changes at fundus of eye: sympathetic functional or dynamic amaurosis. Mr. Hart enumerated the differential characters of the most striking of these forms of change; of which the time allotted only allowed him, on this occasion, to give a brief outline. The object of the paper was to illustrate the value of the ophthalmoscope—by the light of recent researches and of over two thousand observations of his own—as an instrument of diagnosis, and of clinical and pathological research.

Case of Aneurism of the Innominate Artery, treated by Acupressure of the Carotid and Brachial Arteries. By GEORGE MAY, Esq., jun.—J. W., aged 38, suffered from aneurism of the innominate artery for twelve months. On August 19th, 1867, an aneurism-needle was passed behind the carotid, and the probe behind the brachial, close to the axilla. Arrest of pain and visible pulsation. The needle was removed after seventy-two hours. The pulse recommenced in temporal; ligature of carotid. The probe was removed from the brachial after ninety-six hours. There was return of visible pulsation in the aneurism on the twelfth day. The author made the following deductions. 1. Early period at which collateral circulation becomes established. 2. Importance of securing carotid and subclavian arteries simultaneously. 3. Advantage of acupressure over ligature. The following were the results of the treatment. Partial arrest of growth of aneurism. Patient able to do easy work.

The Removal of Cancer by Caustic Arrows and Carbolic Acid. By J. R. WOLFE, M.D., F.R.C.S.—Dr. Wolfe related two cases. In the first, there was epithelial cancer in the inner canthus, involving both eyelids, of nine years' standing. Four openings were made around and one in the centre of the tumour, into which were inserted caustic arrows. On the third day the tumour came away; the wound was treated with carbolic acid dressing, at first strong, afterwards diluted, and with the application of carbolised wadding dipped in glycerine; it healed in a fortnight. There was no relapse, and scarcely a trace of a cicatrix remained. The second case was one of cancer of the lower eyelid and cheek, removed in the same way. The patient was discharged in eighteen days. There was no relapse. The advantages of this mode seem to be—1. Little or no pain; no confinement to bed required. 2. Complete extirpation of the diseased part. 3. The gap left granulates freely, without leaving any mark. 4. It is valuable for removing tumours from regions where no skin can be obtained from the neighbourhood, and is also applicable to erectile tumours, nævi, cancer of the breast, etc., occurring in particular persons, places, or seasons of the year when the use of the knife is to be dreaded. The arrows are prepared by making chloride of zinc into a stiff paste with starch, rolling into shape and drying. Dr. Wolfe shewed that obliteration of the lachrymal sac, etc., did not necessarily induce epiphora or any discomfort, referring to the result of his own experiments on rabbits, which proved that the lachrymal gland was by no means the main source of the tears, which continued after the removal of that gland.

Remarks on Villous Tumour of the Rectum, and the Resemblance that it may bear in its Symptoms to Chronic Dysentery: illustrated by two cases. By H. M. TUCKWELL, M.D.—The two cases brought forward in this paper swelled the list of villous tumours on mucous membranes—now a very considerable one—in which no cancerous elements were present, either in the tumour itself, or in adjacent glands. Their chief clinical interest, consisted in the remarkable resemblance which they bore in their symptoms, to chronic dysentery. Characterised by a sallow cachectic aspect of the patient, by very frequent action of the bowels with severe tenesmus, by persistent and intense pain in the lower part of the back, and by slimy discharges mixed with blood; they showed how dysentery might be so closely simulated by villous tumour of the rectum, that nothing but a most careful examination of the rectum would serve to distinguish the one disease from the other. In both cases the villous growth, of considerable extent and size, occupied the posterior wall and sides of the bowel, reaching from about four inches above the anus into the sigmoid flexure. It was thus quite possible, *unless the rectum was examined directly after an action of the bowels, when, with the violent downward straining present in this disease, the villous processes were forced down within reach of the finger*, to overlook the presence of the tumour. In neither case was there any evidence of obstruction of the bowels, so commonly met with in this form of tumour, to aid in the diagnosis. The immediate cause of death in both instances was perforation of the bowel through the base of the tumour: the opening in the one case leading directly into the peritoneum, and death following from general peritonitis; in the other case just missing the peritoneum, and leading into the connective tissue between the bowel and the sacrum, where a large abscess had formed, which terminated in pyæmia and secondary abscesses in the lungs.

D. MIDWIFERY.—Sir CHARLES LOCOCK, Bart., F.R.S.; Secretaries, J. G. WILSON, M.D., and J. G. SWAYNE, M.D.

On Transfusion, and New Mode of Management. By J. BRAXTON HICKS, M.D., F.R.S.—The author first remarked upon the small extent to which the operation had spread, the various causes of which he then proceeded to consider. 1. The want of success generally, which was accounted for by the impossibility of having the apparatus always at hand; the tendency to postpone the operation till too late; and the difficulty of knowing the exact time at which to operate. 2. The inherent impediment to it, from the position of the patient, and the tendency of the blood used to coagulate. This the author considered the most troublesome and dangerous, as a clot might readily be driven into the system. This Dr. Hicks had now overcome by the employment of a solution of phosphate of soda mixed with the blood of the supplier whilst flowing. He had first tried it on the lower animals, and then in three cases in the human female during delivery: it had simplified the operation to a great extent. The solution is well known to be tolerated by the system.

On the Treatment of Flexions of the Uterus by means of an Elastic Pessary. By PROTHEROE SMITH, M.D.—Having first noticed the frequent occurrence of displacements of the uterus, the recent date of their recognition, and his papers on the subject in *The British Record of Obstetric Medicine* twenty years ago, he promised a future publication of manuscripts written long since but still incomplete; he then described and exhibited his own elastic pessary of gutta-percha, invented and employed by him twenty years ago, consisting of two rings suited to the form of the vagina, united in front and free behind to adapt itself to the natural movements of the pelvic viscera, etc., and to guide continually by its elasticity the misplaced organ into its normal position. He illustrated its use by an instructive case.

The Treatment of Intrauterine Polypi. By GEORGE H. KIDD, M.D., F.R.C.S.I.—This paper opened by showing that we are indebted to Sir James Simpson's application of sponge-tents for the dilatation of the uterus for being able to detect or treat intrauterine polypi; but sponge-tents, it is shown, are liable to many objections. They become very fœtid when they have been a few hours in the uterus; they require prolonged and repeated applications before they open up the canal of the cervix to allow of a complete exploration of the uterus; and they dilate the os externum to an unnecessary degree before they act on the os internum; and their use may give rise to so much irritation as to be attended with fatal consequences. Instead of sponge, Dr. Kidd recommends the use of sea-tangle, with pieces of which, sufficiently long to traverse the whole cavity of the uterus, and of about the size of a No. 5 or 6 bougie, he fills the canal of the cervix as completely as it can be done without using force or causing pain. If the os should be abnormally small, it might be necessary to introduce a single tent for a few hours, as a preparation for more full dilatation; but in general the parts are so relaxed by the hæmorrhage from the polypi, that five or six or more pieces can be introduced at the first attempt; and this is found sufficient to permit of a full exploration of the uterus, and the removal of any polypi found in it. For extracting the polypi, the use of a single wire *écraseur* is found the most certain and simple method. The tumour is seized in a vulsellum, guided to it by the finger on the uterus; and then the loop of the *écraseur* is guided to it by the vulsellum, and adapted round its neck by the finger, when tightening the screw divides the attachment of the tumour, allowing it to be extracted along with the vulsellum by which it had been seized. Dr. Kidd stated that he had operated in this way on very many cases during the last three years, and had always found it safe and efficacious; and he concluded by exhibiting twenty-nine fibrous polypi that he had removed in this way from the interior of the cavity of the body of the uterus of an unmarried woman aged 56, at four operations; three being removed in the first operation, in September 1867; nine in the second, in March 1868; eleven in the third, in May; and six in the following July; when the interior of the uterus was freely painted over with strong nitric acid, with the hope of preventing their further growth; and, for so far, with good effect. The tumours were found, on microscopical examination, to be simply fibrous, differing in this respect from the recurrent fibroid tumours described by West and others; and Dr. Kidd stated that he believed the case to be unique in the annals of medicine.

The Treatment of Versions and Flexions of the Uterus. By GRAILY HEWITT, M.D.—The author described the various methods of treatment he had employed, and exhibited a complete series of instruments devised for carrying out the objects in view. The principle insisted on was the preservation of the vagina in its proper position, and making this the fixed point from which to operate on the uterus. In the first place was exhibited a series of eight oval rings of various sizes for the treatment of retroflexion of the uterus, also available for prolapsus. The rings were of copper wire covered with gutta-percha. These were modifications of Hodges' pessary. In the next place, he shewed a stem pessary of peculiar construction, intended for chronic and more difficult cases of retroflexion. For the treatment of anteflexion and anteversion a series of pessaries of novel construction were shewn, termed by Dr. Hewitt "cradle"-pessaries, and designed to support the fundus uteri by means of two crutch-shaped projecting portions. The pessary was a ring bent into the necessary shape, and of various sizes. This pessary the author had used with uniform success for a period of two years, and stated that by its means the uterus could be held in almost any required position when inclined forwards abnormally. He had found it a most valuable invention, and it had been the means of relieving patients of most distressing and troublesome symptoms. Next were exhibited a series of stem ebonite pessaries, to be worn in the cervical canal. These were retained there by a ring; and the two parts were connected by a simple arrangement. These were used in cases of anteflexion where the flexion was troublesome and chronic.

Case of Ovariotomy during Acute Peritonitis. By ALFRED WILTSHIRE, M.D., and W. TYNDALE WATSON, M.A., M.D.—Mrs. S., aged 49, mother of nine children, healthy (with the exception of varicose veins of the lower limbs), until a year ago, when the abdomen began to enlarge and catamenia became irregular. As the abdomen enlarged, varocosity of veins disappeared. She had attacks of pain and tenderness from time to time. Dr. Watson attended her from March until May 1st, 1868, when, after a long walk, all her symptoms became aggravated, and severe acute peritonitis, accompanied by rapid enlargement of the tumour, set in. She was seen by Dr. Wiltshire on May 3rd, when she appeared moribund. The extremities were cold, there was incessant vomiting, and the pulse was scarcely perceptible. The diagnosis was ovarian tumour, with acute peritonitis, owing to its rapid enlargement. Dr. Wiltshire, on certain grounds, urged operation, which was reluctantly acceded to by Drs. Watson and Murray; and the patient having improved under nutritive enemata, opium, ice, and champagne, ovariotomy was performed by Dr. Wiltshire on May 4th; Drs. Watson and Murray assisting. Chloroform was given. The tumour was large, and non-adherent. The peritoneum was everywhere brilliantly injected. About three pints of glairy serum escaped. The cyst was tapped with Dr. Murray's trocar, and yielded a gallon of blood, but was still very large. In attempting its removal, it rent, and a quantity of blood escaped into the peritoneal cavity. The pedical was very small, and so rotten that the ligatures gave way and the clamp would not hold. Hæmorrhage was arrested only by transfixing and tying the right half of the uterus; silver sutures were used for the wound in the abdomen, which united by the first intention, without the formation of a single drop of pus. The patient rapidly improved, and recovered perfectly, without a rigor.

The Treatment of Puerperal Convulsions. By J. G. SWAYNE, M.D.—After commenting on the unaccountable disfavour with which depletion, even in this disease, is now regarded by many practitioners, Dr. Swayne related a well marked case in his own practice, in which the convulsions which had increased after delivery and after all the usual remedies, except chloroform, had been tried, were at once arrested by bleeding. He also cited similar cases occurring in the practice of Dr. Depant of Paris, and Dr. Dyce of Aberdeen. In one case related by the former, chloroform had been tried for four hours without avail before bleeding was had recourse to. Lastly he narrated a case from the practice of his brother, Mr. S. H. Swayne, in which bleeding was attended with a like success, and followed by a marked diminution in the quantity of albumen in the urine within a very few hours. Dr. Swayne regards bleeding as the most important remedy of all, especially in these convulsions which have a centric origin.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS.

For the week from 29th July to 4th August (both inclusive).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	30.064
Highest reading (corrected and reduced), on July 31st, at 10 P.M.	30.299
Lowest ditto Ditto on July 29th, at 2 P.M.	29.692
Range of pressure during week	00.607
Mean temperature of air in shade	70.6
Mean temperature of evaporation	64.3
Mean temperature of dew-point	59.5
Mean degree of humidity (saturation=100)	68
Maximum temperature of week	79.9
Minimum temperature of week	55.9
Calculated mean temperature of week	67.9
Maximum in shade, on August 4th	85.7
Minimum (protected), on August 1st	47.9
Minimum (exposed on grass), on August 1st	42.7
Range of temperature during week	43.0
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on August 2nd	148.9
Mean amount of clouds (0—10)	1.7
Total rainfall (which fell on July 29th)	0.19 inch
Mean amount of ozone (0—10)	2.9

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	1	1	2	0	0	1	2	0	3.4
2 P.M.	0	0	0	4	0	0	2	1	0	3.4
10 P.M.	1	0	1	2	0	0	1	0	2	1.9

Mean force of wind (0—12) 2.9

The week has been characterised by warmth, dryness, and clear skies. The coolest day was July 29th, on which the maximum temperature in the shade was only 63.7, and the black bulb solar radiation thermometer 84.0; the sky being for the greatest part of the day covered with clouds. Atmospheric pressure increased rapidly, attaining its maximum on the night of July 31st. Since then, it has been gradually and steadily diminishing. Winds have been moderate, and for the most part from the S.E. The general health continues good. Grass and vegetation generally are suffering much from the drought.

Kew, August 5th, 1868.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Thursday, July 30th, 1868, the following gentlemen, having undergone the necessary examination, were duly admitted members of the College:—

Moxey, David Anderson, M.D.Edin., Edinburgh House, Turnham Green
Payne, Joseph Frank, M.B.Oxon,, St. Mary's Hospital, Paddington
Phillips, John Jones, M.D.Lond., Guy's Hospital
Pigg, Thomas, M.D.St. Andrew's, Manchester
Rutter, Joseph, M.D.Lond., Brighton
Wright, Robert Temple, M.D.Edin., 10, New Ormond Street

Royal College of Surgeons of England.—The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board, on Aug. 3.

Cartwright, J. A. T., Spalding, Lincolnshire; diploma of membership dated May 7, 1868
Earle, T. A., Euston Road; July 24, 1868
Grose, S., Royal Marines, Woolwich (a Fellow of the College); June 11, 1868
Rix, Charles J., Manchester; May 6, 1868
Roberts, W. L., Spilsby, Lincolnshire; May 5, 1868
Searle, Francis F., Exeter, Devon; July 31, 1863

In the list published on August 1st of candidates who passed their examinations for the membership on the 23rd ult., the name of Mr. William Morris, Birmingham, of the London Hospital, was accidentally omitted.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Tuesday, July 28th, 1868.

Brocklehurst, Thomas Howard, Manchester
Chabot, Herbert, 129, Camberwell Road
Chapman, John, Burlington Road, Bayswater
Green, John, Dudley, Worcestershire
Herbert, Samuel Lymas, Demerara
Madeley, George Sherwin, Pelham Street, Brompton
Taylor, John Richard Algernon, Infirmary, Halifax
Wood, Charles, Welbeck Street, London

At the same Court, the following passed the first examination.

Boddy, Hugh Walter, Manchester School of Medicine
Phillips, John, Guy's Hospital
Roberts, Arthur Copleston, Guy's Hospital
Roberts, John Dungey, Guy's Hospital
Robinson, George, London Hospital
Rope, Henry John, King's College Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

ANDERSON'S UNIVERSITY, Glasgow—Professor of Medical Jurisprudence.
BARRA, Inverness-shire—Parochial Medical Officer.
CHERTSEY UNION, Surrey—Medical Officer for No. 4 or Windlesham District
CORK UNION—Junior Medical Officer, Cork Dispensary District.
DEVON COUNTY LUNATIC ASYLUM, Exminster—Assistant Medical Officer
DUDLEY DISPENSARY—Resident Medical Officer.
GLASGOW EYE INFIRMARY—Surgeon.
KILKEEL UNION, co. Down—Medical Officer for the Workhouse and Fever Hospital; Medical Officer for the Kilkeel West Sub-Dispensary District.
KIRKMABRECK, Kircudbrightshire—Parochial Medical Officer.
LEEDS PUBLIC DISPENSARY—Assistant Resident Medical Officer.
LOCHBROOM, co. Ross and Cromarty—Parochial Medical Officer.
LONDON HOSPITAL—Assistant-Physician; Assistant-Surgeon.
MACCLESFIELD DISPENSARY—House-Surgeon.
MONAGHAN COUNTY INFIRMARY—Apothecary and Registrar.
NEWMARKET UNION—Medical Officer for District No. 9.
OUGHTERARD UNION, co. Galway—Medical Officer for the Oughterard Dispensary and the Workhouse.
RATHDRUM UNION, co. Wicklow—Medical Officer for the Aughrim Dispensary District.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician; Assistant Physician.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
SCOTLAND—Surgeon-Oculist in Ordinary to the Queen.
ST. GEORGE'S HOSPITAL—Lecturer on Botany.
ST. GILES and St. GEORGE, Bloomsbury, Parishes of—Resident Assistant Medical Officer.
TRINITY COLLEGE, Glenalmond—Resident Medical Officer.
UNIVERSITY OF GLASGOW—Waltonian Lecturer on the Eye.
WESTERN GENERAL DISPENSARY, Marylebone Rd.—Physician in Ordinary

MEDICAL APPOINTMENTS.

Borough, Edw., Esq., M.R.C.S., L.R.C.P.E., late Senior House-Surgeon to the Leeds Dispensary, has been appointed House-Surgeon to the Leeds Fever Hospital, *vice* Henry C. Libbey, Esq., resigned.

Army.

Collier, Assistant-Surgeon H. C., 4th Foot, to be Staff-Assistant-Surgeon, *vice* J. Collins, M.D.
Kemp, Assistant-Surgeon R. D., M.B., 33rd Foot, to be Staff-Assistant-Surgeon *vice* G. F. Adams, M.D.
Maclachlan, Assistant-Surgeon H. K., 74th Foot, to be Staff-Assistant-Surgeon *vice* P. G. Power, M.D.
Power, Staff-Assistant-Surgeon P. G., M.D., to be Assistant-Surgeon 74th Foot *vice* H. K. Maclachlan.

Royal Navy.

Mockridge, John, Esq., Assistant-Surgeon (additional), to the *St. George.*
Siccama, Rinso R., Esq., Surgeon, to the *Myrmidon.*
Turnbull, Alexander, M.D., Assistant-Surgeon, to the *Craeker.*

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Ferguson, J., Esq., to be Assist.-Surg. 1st Administrative Battalion Elginshire R.V
Gray, Alexander C., Esq., to be Honorary Assistant-Surgeon 38th West Riding o Yorkshire R.V.
Groom, W., Esq., to be Honorary Assistant-Surgeon 2nd Cambridgeshire R.V.
Hoyle, Wm., Esq., to be Honorary Assistant-Surgeon 60th Lancashire R.V.
Lang, H., M.D., to be Assistant-Surgeon 9th Middlesex R.V.
Lewis, John P., M.D., to be Honorary Assistant-Surgeon 6th Kirkcudbright R.V.
Livett, Henry W., Esq., to be Assistant-Surgeon 3rd Administrative Battalion Somersetshire R.V.
Smith, R., Esq., to be Surgeon 1st Administrative Battalion Elginshire R.V.
Stockwell, G., M.D., to be Assistant-Surgeon 7th West Riding of Yorkshire A.V.
Swete, Edward H. W., Esq., to be Surgeon 3rd Administrative Battalion Somersetshire R.V.

BIRTHS.

Adley.—On July 14th, at Maida Hill West, the wife of W. H. Adley, Esq., Surgeon Bengal Medical Service, of a son

Curgenven.—On July 28th, at Craven Hill Gardens, the wife of *J. Brendon Curgenven, M.D., of a son.

Fairbank.—On July 19th, at Windsor, the wife of Thomas Fairbank, M.D., of a daughter.

Prance.—On July 18th, at Hampstead, the wife of Robt. R. Prance, M.D., of a son

May.—On July 10th, at Tottenham, the wife of E. H. May, M.D., of a daughter.

Smith.—On July 26th, at Eton, the wife of J. Smith, M.D., of a son.

Wilbe.—On July 26th, at Queen's Road, St. John's Wood, the wife of Richard H. Wilbe, M.D., of a daughter.

MARRIAGES.

*Eddowes, William, Esq., Surgeon, Shrewsbury, to Maria Lavinia, only daughte of Horace M. Hummell, Esq., Brixton, on July 23rd.

*Fox, Edwin Fydell, Esq., Surgeon, to Ellen, youngest daughter of William Warrington, Esq., of London, at Keynsham, on July 14th.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

THE REPORT OF THE MEDICAL OFFICER OF THE PRIVY COUNCIL.

MR. TERRY (Northampton).—The Report of the Medical Officer of the Privy Council was reviewed from a copy which reached us, before it was published, from a member of the House of Commons. It is now published, and may be purchased from Hansard's, Great Queen Street; price 4s. 6d. The mode of publication lies not with the Medical Officer, but with the Parliamentary Printers and Publishers.

SOCIAL DIALECTICS.

SIR,—When my book on prostitution was first published, I was quite prepared to find that many of my proposals for the diminution of contagious diseases would be pooh poohed, and the author roughly handled by his critics. After eleven years' agitation and discussion on the subject, most of the reforms I therein advocated are about to be adopted, on the recommendation of the Committee of the House of Lords, which has just issued its report. I cannot, therefore, in justice to myself, allow the opinions I expressed lately before the Dialectical Society to be misreported, since these represented my matured views on the subject. I value too much the good opinion of my profession to allow the following observations in one of your minor articles to pass unchallenged, especially as there must have been some serious error in the report of what I said, and on which you founded these comments.--"There is in London a Society called the Dialectical, where ladies and gentlemen discuss together the most 'delicate subjects.' The prevention of venereal disease was one of the recent subjects, when, after various ladies had given their opinions, *Mr. Acton advised that ladies generally should use their influence with prostitutes to keep themselves clean, and to inspect the men with whom they had connection.*" What I really did say, I here repeat, viz., that the prostitute has it in her power to most effectually prevent the extension of venereal disease. I gave the following illustration. During a late visit to Paris I was invited by Dr. Denis to assist at the examination of over one hundred and fifty registered women. I was much struck with the few cases of venereal affections to be seen among these avowedly dangerous classes, and to satisfy my doubts, my French *confrère*, calling one aside, asked her how long she had been in the habit of attending his weekly inspections. The woman replied fourteen years. I then asked her how she had escaped, her reply was, "just as others should do; I take care that no man has relations with me if he is diseased."

I have for more than twenty years maintained, that on SANITARY GROUNDS, the surgeon may, does, and I trust will continue to advise, any prostitute coming under his care, to attend particularly to injections and ablutions, as the best means of preventing the extension of venereal diseases. If the doing this is to be permitted to the medical man, *à fortiori*, it becomes a duty to the midwife—the profession, I presume, of those ladies who were present at the meeting of the Dialectical Society. I may add, that I was merely invited as a stranger, expressly to take part in a discussion on prostitution at the meeting referred to.

It is almost an affront to the judgement of your readers, that I should point out what is the only alternative, if my suggestion is considered to be very unprofessional, unusual and shocking. The law now recognises the prostitute as a being who gains her living in a manner which entails on her a risk of being the agent by which serious mischief may be inflicted on members of the community, and whose lives have a value to the state. If, therefore, these wretched women are not to be informed of the means by which they may in some measure protect themselves from infection—if they are to be denied all knowledge, and are to leave the hospital, or pass from under private advice without a word of warning, I imagine that the real purpose and object of all sanitary improvement of the subject would be defeated, and the blame would not rest with the woman.

17, Queen Ann Street, I am, etc.,
August 3, 1868. W. ACTON.

⁂ Mr. Acton first contradicts and then justifies the recommendation attributed to him. Is he satisfied of the accuracy of his assumption that all the ladies present were midwives? and even so, what have midwives more than other women to do with prostitutes?

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

SUICIDE AND LUNACY.

SIR,—Noticing the paragraph in the JOURNAL of July 11th, headed "Suicide and Lunacy", it suggests itself that if medical men would note where suicide occurs in cases that ought to have been previously put under restraint, and so prevented, a formidable list would soon be made out, and means provided to prevent such a state of things. In my own experience, I can refer to at least six cases of suicide in which the restraint of the patient had been suggested; but, from prejudice or otherwise, not carried out. I am, etc., T. G.

IMPROMPTU CATHETERS.

SIR,—I have read the letter of Mr. Stephenson, and also that of Mr. Williams, in the BRITISH MEDICAL JOURNALS, the former recommending a tobacco-pipe, the latter a goose-quill, as substitutes for the female catheter. It has been my practice for years to follow the suggestion of Dr. Evory Kennedy, formerly one of the masters of the Dublin Lying-in Hospital, who used to recommend, in his lectures, gentlemen who might be engaged in midwifery practice to place a male gum-elastic catheter inside their hats under the crown. If gentlemen will do this, I venture to state that the elastic catheter will answer the purpose better than the tobacco-pipe or goose-quill, and not be liable to the objections to which these substitutes are open, of being, to say the least, not elegant. Besides, if they should happen to be called during their round to a case of retention of urine in the male from spasm, or from enlarged prostate, they may find themselves able to assist.

The gum-elastic catheter may also be used as a make-shift for plugging the posterior nares in epistaxis. A piece of fine twine of sufficient strength and length should be tied in the middle, over the eye of the catheter, with sufficient firmness. The catheter thus armed, with the stilet giving it a gentle curve at the point, may be passed along the floor of the nose; and, when it has reached the pharynx, by drawing the stilet, not withdrawing it, a sufficient curve may be obtained to pass it over the soft palate, so that it may be reached with a forceps—perhaps with the finger—and the operation completed in the usual way. I am, etc.,

Sileby, Loughborough, July 1868. PATRICK DOWNEY.

SIR,—I am amused at the correspondence I have from time to time seen, upon the various methods of improvising a female catheter. I have for the last twenty years carried an ordinary female catheter with my pencil-case and caustic-case in my waistcoat-pocket. If your correspondents will do the same, and turn their attention to improvising a male catheter for an emergency, I, for one, should be glad.

Mansfield, Notts, July 1868. I am, etc., THOS. GODFREY.

SIR,—Seeing in the JOURNAL of July 11th, a letter on "Impromptu Catheters", in which a goose-quill is recommended, I wish to state that I know a case in which the medical man not having a catheter with him, and being far from home, was tempted to use a couple of goose-quills—one inserted into the end of the other, to make the instrument the required length, and which he introduced in the ordinary way; but, upon withdrawing the quills, the lowermost one slipped off, and got into the bladder, the patient having to undergo an operation for its extraction.

July 1868. I am, etc., B.

A MEMBER OF PARLIAMENT AS PRESIDENT OF THE GENERAL MEDICAL COUNCIL.

SIR,—In a recent number of the JOURNAL, you suggested the advantages which might accrue if the President of the Medical Council were a connecting link between the Government and the Council. I think this could be easily effected by the Medical Council electing as their President a medical gentleman having a seat in the House of Commons. There are two gentlemen at present holding that position, either of whom is well qualified for the office of President of the General Medical Council. I refer to Mr. Brady and to Mr. Clement. The latter gentleman would at the same time be a fitting representative of the general body of practitioners in the Medical Council.

The new Parliament now in prospect will likely furnish additional medical men, from which the Medical Council could on a future occasion elect a President.

July 1868. I am, etc., J. W.

CARBOHÆMIA.

SIR,—As "M" does not now press the cases of Messrs. Hengell and Russell, I might pass them over. He persists, however, in saying that the evidence which proves that they died of phthisis without breathing pre-respired air would, *mutatis mutandis*, satisfy me did the facts tell in my favour. But, then, he has not adduced any evidence. "M" next proceeds to other matters, not perhaps strictly relevant. Does he mean or not mean to say—for he is not at all explicit—that animal life can be sustained without renewed air. For myself, I assert that animal life cannot be maintained, at all, if the air breathed be entirely pre-breathed; and next I assert that pre-respired air, or part pre-respired, if habitually breathed, inevitably induces tubercle. The conditions of existence in warm and cold blooded animals differ somewhat; but, if "M" will bottle up a serpent or a newt, so as to exclude the atmosphere, he shall find that he will also exclude life. If "M" mean to say that Africans and Indians, "whole races" is his expression, can subsist healthily and yet sleep in such fashion as to rebreathe air nightly, I must wholly differ from him. I have myself seen much of the Negro race, both in Africa and in America, and have been often in their sleeping places; but I have never witnessed anything very peculiar in their mode of sleeping.

In other respects, Dr. Clarke, whose remarks are published, and who spent many years as Staff-Surgeon on the Gold Coast, who also entirely endorses my views as to the production of tubercle from pre-breathed air, adverts to the prevalence of both consumption and scrofula in the negro races in Africa. They (the negroes) are not, indeed, exempt from these maladies, whether in Europe or America. Dr. Edward Jarvis, of Boston, Massachusetts, lately favoured me with some tables, from which it plainly appears that the prevalence of phthisis in America, from south to north, is in the exact ratio of the increased amount of in-door life, and consequent exposure to re-breathed air. The disease, however, is not at all absent either in South America or in India. "M" does not furnish a tittle of evidence that the black-faced, "never under cover", Highland sheep laboured under tubercle, and not cysticerci. It would have been more to the point, I submit, if "M" had adverted to the case of the inhabitants of Argyle and of the Western Isles of Scotland, exempt from consumption absolutely, while it ravages the rest of Scotland, by reason, as I maintain, of never respiring pre-breathed air. These and other relevant facts, "M" will find in my treatise on Phthisis or, if he prefer to consult them, in the Report of the Registrar-General of Scotland for 1861, and Dr. Morgan's paper in the *Medico-Chirurgical Review*. I am, etc.,

Belfast, June 1868. H. MACCORMAC, M.D.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

LARYNGISMUS STRIDULUS.

SIR,—I have had to treat two or three cases of laryngismus stridulus; and one case was so characteristic, that I think it may afford food for reflection. The attacks were frequent and severe, and often followed a meal. The child was suckled by its mother till six months old; the supply of milk then failing, and her health not being over strong, the child being remarkably fine and healthy, the parents were induced to give him artificial diet. The attacks of laryngismus began soon after this mode of feeding was adopted. Every arrangement for feeding was tried, and still no good followed. This went on till the child was eighteen months old, when a wet-nurse was procured. He took to the nurse and her supply of food immediately; and never had a recurrence of the spasms. He was kept and fed by the wet-nurse till over two years of age; and then artificial food was again given. He had no recurrence of the spasms; but a cachectic condition came on. The joints of his fingers swelled and discharged; other joints and bones also showed scrofulous signs; yet he lived for some years, and then died exhausted, with scrofulous sores all over his body. Had this child been fed by its mother, and, failing this, by a wet-nurse, till it had arrived at the age of twelve or fourteen months, would it ever have shown signs of laryngismus stridulus? Would it ultimately have been attacked with scrofulous disease of the joints, etc.? Probably the child would have grown up healthy, as it previously had been healthy, and he would have been living yet; whereas he now has left only the recollection of a terribly distressing and short life, the result of improper infantile feeding. I am; etc.,

Carlisle, June 1868. WM. REEVES.

DR. BILLING'S "PRINCIPLES OF MEDICINE".

SIR,—While thanking you for the notice of Dr. Billing's *Principles of Medicine*, allow us to draw to the attention of your readers, that the book is the sixth edition, and not the fifth, as your reviewer had it, and that the work is published by

London, July 1868. Yours, etc., BELL AND DALDY.

WE understand that Messrs. Knight and Co. are publishing for Mr. Hutchins of the Sanitary Department of the Government, an edition of the Sanitary Act Amendment Act, which has just passed.

THE LYMPH OF THE NATIONAL ESTABLISHMENT.

MR. FLEISCHMANN presents his compliments to the Editor of the BRITISH MEDICAL JOURNAL, and will feel obliged by the publication of the following correspondence between himself and the Privy Council.

"Cheltenham, June 9th, 1868.

"MY LORDS,—Another futile and impracticable Vaccination Act having passed and become law, one of its consequences is, to throw all the union vaccination contracts in the town hitherto held by several Poor-law officers into the hands of one. I shall feel obliged if your Lordships will advise me through what channel to procure reliable vaccine lymph, as that obtained from the National Vaccine Establishment has long ceased to be so; and its use only entails trouble, annoyance, and professional injury to the user, and, I conscientiously believe, frequent constitutional maladies of the gravest order to the unfortunate person upon whom it is used. .Trusting your Lordships will recognise the great public importance of the question,—I remain, my Lords, your obedient servant, A. FLEISCHMANN.

"To the Lords of the Privy Council."

"Medical Department of the Privy Council Office, June 23rd, 1868.

"SIR,—In answer to the question asked in your letter dated June 1868, and received on the 20th June, I am directed by the Lords of Her Majesty's Council to inform you that my Lords cannot undertake to advise you of any channel, other than their own office, through which to procure reliable vaccine lymph. And, with reference to the complaint which you make of the lymph of the National Vaccine Establishment, I am to transmit to you the enclosed copy of a report made on your complaint by the inspector of that establishment.—I am, sir, your obedient servant,

"A. Fleischmann, Esq., Cheltenham. JOHN SIMON."

"National Vaccine Establishment, 16, Fitzroy Street, Fitzroy Square,
"22nd June, 1868.

"SIR,—Referring to Mr. Fleischmann's letter, dated June 1868, I have the honour to state that, beyond duly forwarding the required supplies of vaccine lymph, I have had no special communication with that gentleman. Those supplies were as under:—Nov. 27th, 1867, points charged by Dr. Sharpe*; Feb. 27th, 1867, points charged by Dr. Webb†; April 15th, 1867, points charged by Dr. Sharpe‡; Aug. 13th, 1867, points charged by Mr. Marson§; all experienced and trustworthy vaccinators and suppliers of lymph. The non-success attending the employment of the lymph furnished to Mr. Fleischmann is much to be regretted, but portions of the same lymph in the hands of other medical men have been eminently successful. With respect to Mr. Fleischmann's belief that frequent constitutional maladies of the gravest kind occur to the unfortunate person upon whom it is used, I can only remark that during the long period of my official connection with the establishment—upwards of thirty years—no such case has ever come to my knowledge.

"I remain, J. NEWTON TOMKINS, Inspector."

"1, Suffolk Place, Cheltenham, July 4th, 1868.

"MY LORDS,—I have received your communications of the 23rd ultimo containing the usual official denials to my assertions. Your Lordships will permit me to remark that a simple negative is not very logical in an argumentative, or very convincing in a scientific point of view. I repeat, the points supplied by you to me have—as a rule, and with due care on my part—been failures; that such failures result in professional annoyance and injury; and that the lymph, taken without the care I defy your Lordships to show is used in its selection, is open to suspicion, and is unworthy of general trust and confidence by vaccinators. I am not aware this matter has been fairly laid before the profession. I shall take an early opportunity of doing so, and I trust the result may be that of answering your official denials by a more authoritative opinion than my own. You will further permit me to add that, so long as men in Parliament, utterly and entirely ignorant of the science of medicine, attempt to frame laws requiring the highest knowledge, so long shall we have laws passed for men to laugh at, and be a century behind the rest of civilised Europe in useful and effectual sanitary legislation.—I have the honour to remain your Lordships' obedient servant, A. FLEISCHMANN.

"To the Lords of the Privy Council."

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

SIR,—I venture to assume that, if the votes of the Licentiates of the King and Queen's College of Physicians in Ireland had been taken "collectively before the President and Fellows had proceeded to abrogate the law which compelled all persons seeking their licence to pledge themselves to refrain from compounding medicines for sale, under any circumstances, that the wish and opinion of the large majority of the Licentiates would have been found to be directly opposed to the 'modern opinion' of the President and Fellows."

"According to the modern opinion of the Fellows, the above law or rule has been found to act injuriously; for, not only were many English practitioners thus prevented from taking the licence, but many Irish students were also precluded from entering the College of Physicians of their own country; and were obliged, by force of circumstances, to resort to Edinburgh or elsewhere for what they could not get at home."

This seems plausible; yet it appears to imply a desire to meet competition—a spirit of traffic—rather than respect for the dignity of the President and Fellows, and of the Licentiates of the College. I am borne out by the expressed opinion of many of the Licentiates of the College with whom I have spoken on this subject, in believing that the great body of the gentlemen who hold the licence do not desire to "cut away the ground lately (?) taken up by the Apothecaries' Company", if for that purpose it be necessary that they shall become what Dr. A. Jacob used graphically to designate "mongrel doctors and practitioners".

Long observation has convinced me that, not to speak of the dignity of the profession of physic, but of a far more important consideration, public safety, the latter will be dangerously compromised by the change of the laws of the College of Physicians lately promulgated. I affirm that no physician or surgeon, or even the possessor of both these qualifications, can or ever will be a safe person to act as an apothecary. That the latter (as is alleged), ambitiously assumed to perform duties for the honest and due performance of which he is not duly qualified, can afford no valid reason that the physician should be competent to supply the requirement so much wanted (a person fully instructed in the science of pharmaceutical chemistry and the art of practical pharmacy). I know and lament that in this country pharmacy is in a most dangerous condition—disgraceful to those whose duty it should be to see that a profession so essential to the public safety should not be permitted to lapse into an utter nullity, as a scientific pursuit. I do not make this assertion unadvisedly, or without competent proof.

In conclusion, I think that Licentiates of the King and Queen's College of Physicians, who have strictly conformed to the laws and regulations of the College, and who may consider their professional and social status lowered by the recent act of the Fellows, and who repudiate the permissive connexion with pharmacy, should be entitled to become members of the College, leaving to those gentlemen who desire it, the privileges conferred by the recent legislative act of the President and Fellows. I am, etc.,

June 1868. A LICENTIATE.

H. H.—The *Nomenclature of Diseases* is not yet on sale. Apply to the Registrar of the College of Physicians.

NOMENCLATURE OF DISEASE.

SIR,—I would suggest that the terms "cholera" and "cholerine" conveniently indicate Asiatic and English cholera. I have been in the habit of so using them.

Birkenhead, August 1868. I am, etc., J. DE COURCY YOUNG.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Foster, Birmingham; Dr. Basham, London; Dr. Greenhalgh, London; Dr. Graily Hewitt, London; Dr. Holman, Reigate; Mr. Langston Parker, Birmingham; Dr. Stokes, Dublin; Mr. Wanklyn, London; Mr. Lund, Manchester; Dr. William G. Shepherd, London; Mr. C. A. Newnham, Wolverhampton; Mr. H. Stear, Saffron Walden; Dr. Reith, Aberdeen; Dr. Evans, Paris; The Secretary of the Obstetrical Society; Mr. W. Copney, London; Dr. J. Murray, Newcastle-upon-Tyne; Dr. Tilbury Fox, *Lancet* Office; Dr. Heslop, Birmingham; Mr. Black, Aberdeen; Mr. G. Nayler, London; Mr. Stone, Bath; Mr. Houghton, Dudley; Mr. Wright, Derby; Dr. Kidd, Dublin; Dr. Williams, Hayward's Heath; Mr. Weeden Cooke, London; Dr. Pitt, Norwich; Dr. Charles Parsons, Dover; Mr. J. de Courcy Young, Birkenhead; Mr. J. A. Kingdon, London; Mr. Horace Swete, Weston-super-Mare.

LETTERS, ETC. (with enclosures) from:—

Dr. T. K. Chambers, London; Mr. Thomas Smith, London; Dr. R. McDonnell, Dublin; Dr. Oppert, London; Mr. Adams, Maidstone; Dr. Gull, London; Dr. A. Miller, Edinburgh; Dr. R. Hibbert Taylor, Liverpool; Mr. W. Rendle, London; Dr. Laycock, Edinburgh; Dr. Ransome, Bowden; Dr. Swayne, Clifton; Dr. Tuckwell, Oxford; Mr. Higginbottom, Nottingham; Mr. Bryant, London; Dr. Dobell, London; Dr. Ogston, Aberdeen; Dr. Dyce Duckworth, London; Dr. Septimus Gibbon, London; Rev. Professor Haughton, Dublin; Dr. Hyde Salter, London; Mr. Hulme, London; Dr. Philipson, Newcastle-upon-Tyne; Mr. Ikin, Leeds; Mr. W. Draper, York; Mr. Acton, London; Mr. Thomson, Ramsgate; Dr. J. R. Wolfe, Aberdeen; Dr. Woakes, Luton; Dr. B. Foster, Birmingham; Dr. Protheroe Smith, London; Dr. Eade, Norwich; Dr. J. Braxton Hicks, London; Dr. C. Taylor, Nottingham; Dr. George Johnson, London; Mr. V. Jackson, Wolverhampton; Dr. Ballard, London; Dr. W. Strange, Worcester; Mr. Jas. Paget, London; Mr. Commins, Braintree; Mr. G. Southam, Manchester; Dr. J. Kent Spender, Bath; Dr. Humphry, Cambridge; Dr. F. J. Brown, Rochester; Mr. F. Jordan, Birmingham; Dr. Ward, Bournemouth; Dr. Ballard, London; Messrs. Street, London; Mr. John Birkett, London; The Registrar-General of Ireland; Mr. T. M. Stone, London; Dr. John Murray, London; The Secretary of Apothecaries' Hall; The Registrar-General of England; Mr. Wrench, Baslow; Mr. Fennell, Manchester; Mr. Borough, Derby.

BOOKS, ETC., RECEIVED.

The Herald of Health. London and New York: June 1868.
Report of St. Luke's Hospital for Lunatics, 1868.
On Aniline and its Derivatives. By M. Reimann, P.D., L.A.M. London: 1868.

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* Succeeded.—A. F.

† Failed.—A. F.

‡ Three points succeeded, and three failed.—A. F.

§ Failed.—A. F.

ADDRESS IN PHYSIOLOGY

DELIVERED AT

THE THIRTY-SIXTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in OXFORD, August 4th, 5th, 6th, and 7th, 1868.

BY

GEORGE ROLLESTON, M.D., F.R.S.,
Linacre Professor of Anatomy and Physiology, Oxford.

I HOPE that you may think that the fact of my connection with this place having put me into the honourable office of giving this address justifies me in adopting for it an arrangement, and choosing for it a set of topics, which that local portion suggested to me. If I were to say that I had chosen for the subject of my address the bearings of the studies which it is the business of my life to teach here, upon the interests of the medical profession, I should be giving my address too ambitious a title; it is but with some and with few of these bearings that I propose or feel myself competent to deal. I shall limit myself, firstly, by selecting only such topics as, having been pressed forcibly upon my own attention in my own peculiar course of labour, have come to assume in my own eyes, at least, a considerable importance, and have seemed, in consequence, not unlikely to prove possessed of interest for others also; and I shall limit myself, secondly, by abstaining from going over ground which has, within my own knowledge, been occupied by persons who have on previous occasions stood in the position which I now occupy before you.

Let me throw the heads of my address into a few short phrases, and say that I purpose, with your permission, to speak firstly of the bearing of certain portions of the very extensive range of subjects, comprised under the titles Anatomy and Physiology, upon certain points and problems which come before the attention of the medical practitioner in the course of his actual duties; and secondly, of the illustration which some of the conclusions recently come to in Biological Science cast upon the validity of certain principles which are ordinarily looked upon as authoritative canons for the regulation of the reason in medical, and, indeed, in other investigations. Under the term Biological Science are included, besides pure Physiology, Human and Microscopic Anatomy, Comparative Anatomy also; and in this place, as your visit to the Museum will have convinced you, we give considerable, but as we hope, not undue prominence to this latter branch of study. I propose to speak of the bearings of Biology on Medicine in each, but, owing to our local speciality just alluded to, specially in the last mentioned of these four departments. And I must ask you to bear in mind that the very constant reference which I shall make, if not in my address, at all events in my notes, to the works and writings of others, is in like manner to be explained by my wish to have a distinctive colouring given to this address by the local peculiarities of the great educational centre in which we are assembled. For one of the most distinctive peculiarities of this ancient University is the formation within its precincts of such a library of modern science as will shortly have no superior, and but few rivals, in the world. This we owe to the well advised administration of the funds of that famous physician, Dr. Radcliffe; and it is from a wish to make a sort of acknowledgment of the obligation which medical and other sciences owe to him and his trustees, that I shall so constantly, at least in print, refer to the chapters and pages of the innumerable books which their enlightened munificence has put here at the disposal of the student. It is not, I can assure myself, from any irritable anxiety to impugn or depreciate the work of others, that I have so constantly consulted and specified their pages; nor, I trust, have I allowed myself to be tempted into the unpardonable fault of using, or rather abusing, a great opportunity by making upon it a petty personal display. Rather have I felt it to be my duty to occupy this hour as you occupy your lives, in doing what it may be possible to do for the good of humanity. Your presence and your example make me feel that any other course would be but impertinence; and I have therefore kept constantly before my eyes Bacon's sentence in condemnation of empty useless erudition—*Vana est omnis eruditionis ostentatio nisi utilem operam secum ducat.*

The title of Niemeyer's work on medicine, the seventh edition of which has recently appeared and come into my hands, will furnish me with an excellent text for my first head—"The Connection and Interdependence of Medicine and Physiology." That title runs thus:—"*Lehrbuch der Speciellen Pathologie Therapie mit besonderer Rücksicht auf Physiologie und Pathologische Anatomie*, von Dr. Felix von Niemeyer. Siebente vielfach vermehrte und verbesserte Auflage. Berlin, 1868." From this work I will take my first illustration of the nexus and connection of which I have to speak; and I believe that, though I am obliged to dissent from the explanation therein given of the facts I shall refer to from its pages, the explanation which they seem to me to bear, or rather demand, shows even more clearly than the one there given, the intimacy of the alliance which is now becoming so close between the experimentalist and the practitioner. In writing (vol. ii, p. 334) of a form of neuralgia, the pain of which those who have suffered from it themselves, or, indeed, have seen others suffering from it, will allow is not exaggerated by the application to it of the words "fast unerträgliche," Niemeyer remarks that the physiologists Dubois-Reymond and Dr. Möllendorff refer its origin to the existence of a dilated state of the *arteria carotis cerebralis.* This state of dilatation these authorities explain by a reference to certain facts in the physiology of the cervical sympathetic as discovered now some seventeen years ago by Bernard, and elucidated still further by Waller, Budge, and Brown-Séquard. And in a like spirit, or at least by a reference to certain anatomical facts in the arrangement of blood-vessels, which he supposes to become dilated and distended, the great Göttingen anatomist, Henle (cited by Niemeyer, vol. ii, pp. 319-339), explains the causation of certain neuralgiæ. The neuralgia which is apt to haunt the sixth, seventh, and eighth intercostal spaces of the left side, he has suggested may be explained by the peculiar arrangement of the left or smaller azygos vein in that region; and the greater relative frequency of neuralgia of the first than of the second and third divisions of the fifth cerebral nerve, he refers to the greater quantity of dilatable veins with which it is beset in passing from the inner to the outer surface of the sphenoid. Now I venture, though with some diffidence, as I find myself in opposition to such names and authorities, to dissent from the explanations thus given of these facts, which I suppose must be acknowledged, with perhaps an exception as to the relative statistical frequency of neuralgia of the first division of the fifth, to be only too real facts. By laying the physiology of the cervical sympathetic alongside of the natural history of an attack of neuralgia, we shall be enabled, I believe, to see that there are stages in each corresponding with stages in the other, but that it is a stage of spasm in the one, and not a stage of relaxation and congestion, which corresponds with the stage of pain in the other. Stimulation of the upper cervical sympathetic produces, more or less immediately, contraction of the blood-vessels of the head and dilatation of the pupil, and diminution of the temperature. This is the first line of operation, resulting in what Brown-Séquard (*Lectures on the Physiology and Pathology of the Nervous System*, 1860, p. 142) calls "Decrease of Vital Properties." But after a while the reverse of all this takes place, and the vessels dilate. Now whether this be so in consequence of exhaustion, as is ordinarily said (*e.g.* Funke, *Physiologie*, vol. ii, p. 772) or not, as Dr. Loven, (who says in Ludwig's *Arbeiten Phys. Anat.*, Leipsig, 1867, p. 1011, that the sympathetic is not so easily tired) thinks, is of no consequence, or of little consequence, as the fact of the sequence of events is accepted as I have stated it on all hands. Indeed, similar alternations of alteration in the calibre of vessels takes place, as is well known, spontaneously, as the phrase goes—whether rhythmically or not, still chronometrically in relation to the needs of the animal and its tissues; in the arteries of the rabbit's ear (Funke, *loc. cit.*, ii, p. 771, citing Schiff and Callenfels), in the veins of the bat's wing (Wharton Jones, *Phil. Trans.*, 1852), in the arteries of the frog's web (Lister, *Phil. Trans.*, 1858, p. 653); and the occurrence of these latter alternations makes the occurrence of the former more intelligible. Now, a similar alternation from a stage of contraction of blood-vessels, of coldness of skin, of shivering, of total absence of heat, redness, swelling, or tenderness, to one of increased circulation, swelling, heat, and tenderness, constitutes two stages in an attack of neuralgia, homologous with the two described as occurring in irritation of the sympathetic. It is rare, I believe and Dr. Anstie teaches (*Stimulants and Narcotics*, 1864), for pain, as opposed to tenderness, to persist after congestion; and pain in tissues differs as much from tenderness as remorse in a conscience differs from tenderness in that organisation; and the two things are well-nigh equally exclusive the one of the other in both cases. Perhaps the mere apposition of the two sets of occurrences side by side is sufficient to justify my conclusion that the congestive stage of the physiological experiment is not the homologue of the painful one of the morbid history, mere apposition being sometimes sufficient to decide us on more difficult homologies, at least in the negative. But I may add, that the argument from the *juvantia ac lædentia*, as the older physicians and physiologists phrased it, gives some confirmation to the view which teaches that spasm and starvation go in company with pain; relaxation and congestion only with tenderness. I will put the facts before you as premises; you will piece them together into an argument for yourselves. Chloroform is the greatest of *juvantia* in neuralgia; chloroform, indeed, and ether, in equal parts, as recommended by Mr. R. Ellis, may be safely entrusted to a safe person for self-administration; and, if taken persistently as well as prudently, may keep the attack in suspense until the enemy, from weariness or chronometric obligations, retreats or withdraws. But this great reducer of neuralgia, this great and blessed producer of "indolence", as Locke called it, is also the great reducer of muscular spasm, as we know from its action and our employment of it in cases of hernia, and, indeed, of tetanus. Now, if it relaxes muscles, which we can see in the limbs and trunk without the aid of a microscope, we may think it not improbable that it will do the like by muscles, which we cannot see without the aid of that instrument, in the arterioles. Chloroform, secondly, has the reverse action to that of the sympathetic, in dilating the blood-vessels of the head;[*] as, indeed, also has alcohol, itself too a producer, though less directly, of the "indolence" we desire, as well as of much that we deprecate. And chloroform, thirdly, antagonises the sympathetic in its very obvious action on the pupil.

It may be bold in me to venture further in this direction; yet, as a member of the British Medical Association, and as a reader of our admirable JOURNAL, I may perhaps be allowed to say, before I return to my own more immediate subjects, that the account given by Dr. George Johnson in that periodical for March 21st, 1868, seems to me to indicate that epilepsy itself is but a frightful caricature of neuralgia, and of the results of vaso-motor irritation and contraction. The presence of dilatation of the pupil in all those sets of cases may be thought perhaps but a slight indication in the direction of identity of cause. High spirits and great vivacity are not rarely, in both diseases alike, precursors of an attack; while counterirritation, which both Schiff and Sitschenow[†] are agreed in considering a strong and universal reflex depressant, is not rarely, in both diseases alike, both, *ex hypothesi*, dependent on reflex vascular constriction, a preventive.[‡]

I will now proceed to give, in the second place, an account of a physiological experiment worked out for us, from time to time, in the laboratory of Nature, which throws not a little light on a question which, I learn from Dr. Wilson Fox's work on *Dyspepsia* (p. 141), is still a matter of debate among pathologists—the question, to wit, "of the influence of perverted innervation in causing inflammatory, or sometimes even still severer morbid changes."[§] It is well known that stags, after injury to the testes, have corresponding changes wrought out in the corresponding horns. Such a specimen I can show you from the Christ Church Museum, founded by Dr. Matthew Lee. In a curious old work dedicated to him, in company with two others of the King's Physicians, by Dr. Richard Russell,[*] and styled *The Economy of Nature in Acute and Chronical Diseases of the Glands* (pp. 21-24), five such experiments are recorded. In such cases as these, after the injury to the testis, the horn may or may not be shed annually, and it may never thenceforward lose its "velvet"; but it never becomes the dry lowly vascular weapon of offence which, in a fortnight or three weeks from the present time, we shall see the bucks polishing their hard leather coated horns into against shrubs and trees. It remains vascular and spongy within, and coated with hairy skin outside, which may be prolonged into pendulous outgrowths. Being sensitive and fragile, and bleeding easily, it acts as a second sexual disqualification; and, as I am speaking of this correlation of growth, I may be allowed to add, that its reality is further testified to by its absence after similar lesions in reindeer, where both bucks and does are alike horned. Now, I submit that the unilateral correspondence of malnutrition, such as we have here, is as good an instance and exemplication of Pflüger's first law of reflex action, the law of unilateral (*gleichseitig*) transmission of stimulus as any unilateral or homolateral twitching of any muscle can be in response to any one-sided stimulus. Only the reflex action shows itself in the way of nutrition—a sort of reversed hemiplegic nutrition, it is true—and not in that of movement nor in that of secretion.[†]

Let me, as in the former case, lay alongside of the physiological experiment a parallel to it from pathology. This I will do by the help of Budge, who, at pages 794-795 of his *Handbook of Physiology*, gives us the two following short histories, which have come under his own observation. His words run thus in translation. "After a long continuing stagnation of blood at the end of the small intestine and the beginning of the large, in consequence of which exudations and adhesions of the peritoneum ensued, the entire right half of the body became weaker than the left, was tired sooner by exertion; the right foot became cold sooner, under the same circumstances, than the left; the right ear became much more rapidly the seat of vascular dilatation than the left; and other similar phenomena developed themselves. After a great abscess under the right gluteus maximus, and an immense loss of pus, the right hand and the entire right arm became not only evidently thinner to the eye than the left, but also actually smaller." These cases are decisive as to the interference of the nervous system in the process of nutrition; and, though organs and structures, such as the epithelial and the cartilaginous, both physiological and, I suppose, morbid, may and do exist and grow in animal bodies being as devoid of blood-vessels and nerves as though they were found in vegetables, still any arguments based upon these undoubted facts can be met at once, if so we care to meet them, with the more or less accepted physiological axioms, "the interdependence of parts augments with their development; the solidarity of organs increases and is more intimate with each superaddition of a fresh factor to the entire economy." But these cases do not, of course, touch the question of the way in which this nervous influence comes to act on the tissues, whether mediately through the blood-vessels, or immediately on the tissues with which they are supposed, in the case of the salivary glands by Pflüger, though not, as I apprehend, by Dr. Beale (*Phil. Trans.*, 1865, p. 447), to become continuous. Nor does such an experiment as that of Bidder, in which a salivary gland, under nerve-stimulation, picked out two-thirds of the entire quantity of iodide of potassium in the circulation, to one-third picked out by the substance of its fellow, not so stimulated

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[*] I find that both Mr. Durham (*Guy's Hospital Reports*, iii, vi, 1860, p. 153) and Hammond (*On Wakefulness*, p. 25) are agreed that, in animals under chloroform, the veins of the brain become distended. I do not, however, lay any great stress upon this fact; firstly, because the veins may become distended under the influence, not so much of the chloroform, as of the more or less partial hindrance to respiration which its inhalation implies; and, secondly, because we have, as yet (Funke, vol. ii, pp. 769-773), no very distinct evidence for the production of effects on the veins by the sympathetic. But, taking the facts as given, we must allow that venous fulness, though inferior, doubtless, to arterial replenishment, is still, as the growing prostate of the aged, the rank hairs shooting up round old ulcers, and the cock's spur transplanted to the cock's comb, show, a more or less favourable condition for growth and nutrition; whereas pain is correlated always with malnutrition and ordinarily with atrophy, and is now always spoken of as a "depression" rather than as "an exaltation of function."

[†] Setschenow's words are these (*Neue Versuche*, p. 23, 1864): "Es giebt endlich bei meinen Gegnern einen Versuche, an dessen Richtigheit ich keinen Grund zu zweifeln habe, an welchem die einseitige Trigeminus-Reizung eine starke allgemeine Reflex Depression hervorrief." These words seem to furnish something like a rationale of the picking of the nose in helminthiasis, as also of much of that counter-irritation of the fifth nerve at its periphery which so-called "nervous irritable" persons practise on themselves in the way of "tricks." Malgaigne practised similarly on his patients.

[‡] These views I came to entertain without any knowledge—or perhaps I should rather say without any conscious recollection—of those which Dr. Radcliffe had put before the world in his lectures delivered at the College of Physicians, and published in 1864 in his work on *Epilepsy, Pain, and Paralysis.* I have not altered what I had written in consequence of my consultation of this most valuable work, to which I resorted after seeing a reference to it in Dr. Anstie's book. This latter work I have already quoted in the text, and I found it most useful and suggestive to me. I believe, indeed I hope, that what I have written is more or less in accordance with Dr. Radcliffe's views. But it is as much inferior for purposes of consultation, and indeed in other points of view also, to what Dr. Radcliffe has written, and I have read of his, on the same subject, as a skull when just removed, and that in a somewhat fragmentary condition, from a barrow, is to the same skull when pieced together and reconstructed, as you may see many such skulls in the Museum, by Mr. Robertson.

[§] The following references to authorities on this vexed question I herewith append.

Lister, *Philosophical Transactions*, 1858, p. 627.
Beale, *Philosophical Transactions*, 1865, part i, p. 447.
Virchow, *Archiv*, vol. xvi, 1859, p. 428; *Cellular Pathology*, Chance's translation, pp. 311-312.
Paget's *Surgical Pathology*, Turner's edition, p. 237.
BRITISH MEDICAL JOURNAL, 1866, p. 402.
Anstie, *Lancet*, 1866, vol. ii, p. 548.
Simon, Holmes's *System of Surgery*, vol. i, p. 62.
Bernard, *Leçons Physiol. Pathol. Syst. Nerv.*, vol. ii, p. 518.
Brown-Séquard, *Lectures on the Physiology and Pathology of the Nervous System*, p. 143.
Budge, *Handbuch der Physiologie*, p. 794.
Funke, *Handbuch der Physiologie*, vol. ii, p. 776.
Donders, *Spec. Physiologie*, p. 140.
Billroth, *Die Allgemeine Chirurgische Pathologie und Therapie*, 1868, p. 72.
Niemeyer, *Lehrbuch der Pathologie und Therapie*, 1868, ii, pp. 320, 340, 428.
Handfield Jones, *Functional Nervous Disorders*, p. 11; Lectures in *Medical Times and Gazette*, 1865.
Samuel, Moleschott's *Untersuchungen*, Band ix, p. 18.

[*] It may be interesting to record here, in passing, that Dr. Richard Russell lived at Reading, that he was a friend of Dr. Chapman and of Dr. Frewin of this very place, and that the copy of his work to which I have referred, and which exists in the Christ Church Scientific Library attached to the Christ Church Museum, and deposited with it in the University Museum Buildings, did in 1760, eleven years before Dr. Russell's death, belong to Dr. Chapman. Now these facts and dates render it not improbable that this very specimen may have been given by Dr. Russell to Dr. Chapman, possibly together with this copy of his book. It is unfortunate that so much should be left to speculation; but this digression may be justified by the moral which it conveys, to the effect that we are bound, when receiving a specimen into a museum, to put on record forthwith, for the benefit of our successors, a note of its history and donor. Dr. Russell was the author of several other works besides the one I have quoted. Their existence has escaped the notice of Dr. Munk, in his interesting volumes, *The Roll of the Royal College of Physicians*, vol. ii, p. 132. Their titles are: 1. "De Tabe Glandulari sive de usu Aquæ Marinæ in Morbis Glandularum Dissertatio." In 1 vol. 8vo. Prct. 5s. 2. "A Dissertation concerning the Use of Sea-water in Diseases of the Glands"; to which is added an "Epistolary Dissertation to R. Frewen, M.D." In one volume, 8vo; price 5s.

[†] See Otto, *Neue seltene Beobachtungen Samml.*, vol. ii, p. 10. Elsaesser, *Diff. Sex. Mamm. præter partes sexuales*, p. 36. Since writing the above, I have seen a note to page 22 of Mr. Paget's *Surgical Pathology*, edited by Professor Turner, in which the fact that no disturbance of nutrition is effected by mere transplantation of the testis *in cocks*, is brought forward to shew that no mere nervous disturbance can account for these alterations of nutrition. I do not think that these negative results, obtained from experiments on half a dozen *birds*, can outweigh the positive facts of unilateral correspondence in malnutrition which have been so frequently observed in mammals. (See Hunterian Catalogue, Osteological Series, vol. ii, p. 591.)

For a more innervated gland is also a more vascular gland; and of the two antecedents, greater nerve-current and greater blood-current, we have no right from this experiment to say that the one rather than the other is the cause of this particular consequent. And much probability will come to attach itself to Virchow's views, according to which innervation is not proven to increase nutrition directly, but works only mediately by its influence on the blood-vessels, in the minds of persons who may be averse to multiplying laws by cases such as these. We go to a case, as I suppose most of us may, like myself, have gone, and we frequently find one side of the body hot, and the other cold. This latter, the friends will tell us, is the paralysed part; we find that it is not; and Bernard's experiments, and Brown-Sequard's (*l. c.* p. 146) enable us to understand why this is so. An excellent case to the same effect, showing how increase of vital properties may take place in the entire absence of any connexion with the upper part of the cord or brain, may be given from a paper of the late Sir B. C. Brodie's, in the twentieth volume (1837) of the *Medico-Chirurgical Transactions.* "A man was admitted into St. George's Hospital, in whom there was a forcible separation of the fifth and sixth cervical vertebræ, attended with an effusion of blood within the theca vertebralis, and laceration of the lower part of the cervical portion of the spinal cord. Respiration was performed by the diaphragm only—of course, in a very imperfect manner. The patient died at the end of twenty-two hours; and, for some time previously to his death, he breathed at long intervals; the pulse being weak, and the countenance livid. At length, there were not more than five or six respirations in a minute. Nevertheless, when the ball of a thermometer was placed between the scrotum and the thigh, the quicksilver rose to 111° of Fahrenheit's scale. Immediately after death, the temperature was examined in the same manner, and found to be still the same."

The larger size of a horse's hoof, the nerves of which had been divided, should probably be similarly explained by the greater afflux of blood which would set in thither temporarily until the continuity of the nerve was re-established. (Ogle, *Med. Times and Gazette*, Nov. 3, 1866.) And, finally, such an occurrence as the inflammation of skin, cartilage, or cornea, after its own sweet will, and not in the line of an irritated nerve passing through it or near it (Virchow's *Cell. Path.*, Chance's Translation, p. 299), seems to speak plainly enough to the self-sufficiency of animal cells to respond to what Niemeyer calls "Insulte", without appealing to any higher powers for assistance; just, in fact, as though they were as little animal as truly vegetable, and as independent of any cranio-spinal centre as the gall-producing oak or willow.

But, in spite of all this, I am inclined to think that the direct action of nerves on cells is a *vera causa;* and, even if our highest microscopic powers do succeed in proving that nerve-tissues are never continuous with any other tissues in any part of their distribution, it must still be recollected that such intervals as may be demonstrated will be, if not insensible, at all events infinitesimal; and nerve-force may well be sufficient to act across such gaps as these (See Dr. Radcliffe's *Lectures on Epilepsy*, 1864, pp. 13 and 330). I can appeal for my justification to Professor Lister's experiment, recorded in his paper on the Cutaneous Pigmentary System in the Frog (*Phil. Trans.*, 1858, pp. 636-639), in which certainly the nerve-system is shown to have some control over the molecular movements of concentration and diffusion, quite independently of the blood-vascular system. The cessation of the circulation in a frog's web entails the concentration of the pigment; therefore Professor Lister took a pale frog—*i. e.*, one in which the pigment was already concentrated; and, tying a ligature above the ankle, so as to eliminate the condition of cessation of the blood's circulation, he then eliminated the condition of nerve-influence from the cranio-spinal axis by amputation above the ligature. *Cessante causâ, cessat et effectus*; the nerve-force is removed; and the pigmentary diffusion which it had held in check, is set up and continues, until superseded by the *post mortem* concentration which ordinarily takes place, and produces that lightening of the dark hue usually seen in the frog after death. This experiment, which I have not given in full, nor in Professor Lister's own words, is a very striking one; and I hope I may remark, without offence to any representatives of the German fatherland, to which physiology owes so much, that much that has been recently written and worked at there might have been spared, had Mr. Lister's papers been as well known to them as they will be to their successors. They seem to me to mark an era in the literature and in our knowledge of the essence of inflammation.

Here, if I may be allowed to digress somewhat, I would remark that Professor Lister's suggestion made in 1858 (*loc. cit.*, pp. 619 and 640) as to the probability of the existence in the limbs of a ganglionic apparatus co-ordinating molecular and other movements at the periphery, sometimes independently, sometimes subordinately to the cranio-spinally placed nerve-centres, may seem to have found a justification in Professor Beale's demonstration in 1865 of the ending of the muscular nerves in nucleate reticular plexuses. Assuredly, the discovery of these net-works bearing nuclei does away with the necessity for any further carrying on of the apparently interminable discussions as to the existence of an "ideo-muscular" as opposed to a "neuro-muscular" contractility. But I will take this opportunity of saying, that there are not wanting purely physiological considerations, which though not by any means amounting to demonstration, do nevertheless lend some little probability to the "neuro-muscular" explanation of those movements which take place in muscles separated from all connexion with central nerve-organs. Firstly, these movements are within my experience more marked and frequent in the muscular tissues of young animals; and the history of the development of nerves would lead us to expect to find a greater degree of independence in the peripheral nerve-system, than we should look for in the adult organism; for nerves do not grow from cells in the direction of what we know in the adult state and under low powers of the microscope as their branches; but as Von Hensen has shown (Quain's *Elements of Anatomy*, 7th edition, p. clxiv) two nerve-cells are connected by a fibre, and it is by the withdrawal of the one cell from the other, and the elongation, so to say, of the interconnecting fibre, that the peripheral and central ganglionic systems respectively assume their adult relations. And just so, I may add, in certain annelids and lamellibranchiata, we have, as we not rarely do have in the lower animals, a stereotyped though but partial adumbration of what is but a single scene in the moving diorama of the development of the higher; and we find the peripheral nerve-system studded with eyes or other sensory organs, and possessed of a prominence and importance relatively to the central nerve-ganglia which is only temporarily seen in the development of more perfect creatures.

Secondly, many of the cases of death in adults, in which this irritability is found to exist most commonly and markedly, are cases in which, from very various reasons, the functions of the intracranial nerve-centres are put into abeyance at a very early stage in the process deathward. Such are (see Nysten, cited by Brown-Séquard, *Proceedings of Royal Society*, 1862, p. 211) cases of decapitation, of asphyxia, and of sudden hæmorrhage from a large artery. Now we know that movements do continue in a portion of intestine which has been deprived of its mesentery, and we ascribe the production of these movements to the presence in the walls of the intestine of the plexuses demonstrated to us by Meissner and Auerbach; if we may ascribe like effects to like causes, we may ascribe the *post mortem* twitchings of muscles to Professor Beale's neuro-muscular apparatus. In like manner we should expect from similar reasons, and we do find, as a matter of fact, this same neuro-muscular irritability greatly prominent in the small-brained cold-blooded vertebrata, and in hibernating mammals. In all of these animals alike, the central nerve-system is small relatively to the entire mass of their bodies; whilst in birds, or at least in the more highly organised of the class—for birds, like other bipeds, differ as to the mass and use of the brain (see Parker, *Zool. Trans.*, v. 1862, p. 207)—the brain may hold a more favourable relation to the entire mass of their bodies than in any other class of animals; and in birds, as is well known, with some few reptile-like exceptions, such as the peewit, muscular irritability ceases almost with their last act of expiration.

Whilst speaking of this condition occasionally found in the muscles after death, I am tempted to say a few words of the empty condition of the arteries which is almost constantly found after death. I observe that Von Bezold has explained this well-known phenomenon as being due to a last nervous impulse communicated to the small peripheral vessels *from the brain.* His words are—(*Untersuchungen aus dem Physiologischen Laboratorien in Würzburg*, Heft ii, p. 358, 359, 1867) "Sicher ist aber ein ungemein wichtiges Moment hierbei die Innervation der Muskeln in den kleinen Gefässen des Körpers. Man stelle sich vor, dass in der Agonie, in Todes-Kampfe, das Vasomotorische Central Organ im Gehirn noch in Krampf-zustande versetzt wird, welche mit Pausen der Erschöpfung abwechseln. . . . Ausserdem ist gezeigt worden, dass jenes letzte Ueberpumpen des Blutes aus den Arterien in die Venen, bei den Saugethieren wenigstens, unter dem Einfluss einer letzter Thätigkeit des Gehirns geschicht." Surely all these "Vorstellungen" would have been spared, if Professor Von Bezold had been acquainted with Mr. Lister's papers, or even with those points in them to which I have referred. Indeed, that his view is untenable, is clear from a consideration of the fact that the circulation can be kept up, and will, like the muscular irritability, persist in a decapitated animal for a long while after death, if artificial respiration be put in play. The empty state of the arteries *post mortem* is most probably to be explained by the action of the peripheral nerve-system on the arterioles; though Dr. Alison would have explained it by the attraction *a fronte* force of the tissues around the capillaries; but Von Bezold's view of the source of the nervo-muscular action of the peripheral vessels is, I apprehend, more untenable and less plausible than most theories which have had their day and ceased to be.

The following short history seems to me to be a good instance of the action, or rather of the want of action, of the peripheral nerve-system upon the arterioles. A man, who came some years ago under my own care, had had a bullet pass through his arm just above the elbow, so as to sever the musculo-spiral nerve. The scars of exit and entrance were in the lower third of the arm. Under ordinary circumstances, the soft parts of the lower arm maintained their normal consistence; but their power of resisting changes of temperature was greatly impaired, as well of course as the sensibility of the parts supplied by the injured nerve. I recollect seeing the swollen state of the inner side of the hand one cold raw morning when the man was on sentry duty, and had his hand chilled down by the musket he had to carry. Now, I apprehend that this turgescence is to be explained by saying, that the local or peripheral nerve-system of the affected parts was competent under ordinary circumstances to regulate the calibre of the arteries; but that its activity was liable to be depressed, as under the circumstances related, into actual abeyance, in the absence of any possibility of any assistance being supplied to it from the cranio-spinal nerve-axis. Thus, under the depressing effect of cold, which seems to work here much as it does in checking the regeneration of artificially amputated parts in snails and in salamanders (Müller's *Physiology*, by Baly, i, p. 404), the peripherally placed ganglionic system was put into abeyance; and turgescence of the vessels it ordinarily supplied with "tone" ensued. Just similarly in mammals the skin of which has been covered with an impermeable varnish, and in which death is as much due to the chilling down which the destruction of the non-conducting power of their hairy integument entails, as to the penning-in of its various acrid and volatile and other secretions, œdema and vascular congestion are to be observed in the skin, as well as in other organs (Ranke, *Physiologie*, p. 456). The flame of mammalian life, like the flame of inorganic combustion of hydrocarbon, can only be sustained at a high temperature; a certain reduction is as fatal to the one as it is to the other in the Davy lamp, and the vitality of the more exposed peripheral is more easily depressed than that of the more protected central nerve-system.

I should be paying but a poor compliment to the judgment which has provided a microscopic exhibition for the instruction and entertainment of this evening, if I were to dwell at any length upon the relations borne by Histology to Medicine and Surgery. And, secondly, if I were to dwell in the least adequately upon the importance of a knowledge of Microscopic Zoology to the diagnosis, and what is better than the diagnosis, and even than the therapeutics, the prophylaxis of diseases of all kinds from those which are considered trifling or contemptible by most men, except those who suffer from them, up to those which excite world-wide anxieties, such as trichiniasis or cholera, I should have to extend my address to a length you would shudder to think of. Upon one single point I will make a few remarks; and the purport of these will be to show how the manipulation of such an instrument as a catheter may find, if we are to do justice to our patients, its regulative condition in the manipulation and revelations of the microscope. I had myself recently come to suspect that the determining condition of the triple phosphatic alkalescence of the urine was to be looked for and found in the presence of some of those organisms which Pasteur has proved and hygienists have believed to be the real causative agents of fermentations and putrefactions. One accepted view of the causation of this most mischievous metamorphosis is, that the coats of the bladder, in consequence of altered innervation, as after spinal injuries, act upon the urine as so much dead matter acts on blood in causing its coagulation, or as the tissues round about the capillaries act when they are in an abnormal condition upon the rows of blood-corpuscles within those canals; and by this "catalytic" agency break up the urea and throw down the ammoniaco-magnesia phosphates. Another view ascribes the like effect to the "fermentative" working of the abundant catarrhal mucus, which is in some cases flaked off from the inner walls of the bladder. Now, neither of these views suggests a *vera causa* for the effect for which they profess to account. Blood coagulates when in contact with non-vitalised matter, and blood-corpuscles arrange themselves in *rouleaux* under similar circumstances. But Mr. Lister, who has shown us so much which bears on this matter, has shown us also, and that in the last number but two (July 18, 1868), of our JOURNAL, that urine will remain for an indefinite period undecomposed in a properly constructed, which happens to mean a properly contorted, receptacle, even though that receptacle be as little vitalised as glass. And Niemeyer has shown, what I daresay many who are now honouring me with their presence have observed, but, I think, not recorded, that urine often retains its acidity through protracted cases of vesical catarrh, and in spite of cumuli of clouds of "fermentative" mucus; which are, therefore, as little of *veræ causæ* as is "catalysis" itself. But the presence of vibrios in the urine, and that before it leaves the bladder, is a *vera causa*, *i.e.*, a present condition, and therefore possibly a cause, or connected with the cause, of the phenomena to be investigated (see Beale *On the Urine*, p. 196); and the idea that the alkalescence in question depended upon them, an idea which I had not the time to find an opportunity for verifying for myself, I find has been verified for the benefit of others by Niemeyer, with the assistance of Traube and Teuffel. "In the course of last year," says Niemeyer (*l. c.* ii, 66, 1868), "I arrived, partly by means of an observation of Traube's, partly by means of experiments and observations of my own, which have been published by Teuffel in the Berlin *Klinische Wochenschrift*, at the conviction that it was not the vesical mucus, but lower organisms, which probably get into the bladder by means of the introduction of badly cleaned catheters, and excite there the alkaline fermentation of the urine." Now, whether the vibrios find their way into the bladder exclusively on dirty catheters or not, I apprehend that the addition of some carbolic acid to the oil used for lubricating these instruments, whether they be guilty or not of what is here laid to their charge, will be a piece of practice calculated to prevent the alkalescence which the vibrios cause by preventing these vibrios themselves from entering on their evil activity. Mr. Lister's paper, just alluded to, will show that this is an experiment which may very safely be tried; if carbolic acid can be safely introduced into a wounded pleural cavity, assuredly we need not hesitate about the passing it into a bladder. Thus many scientific researches, undertaken in the first instance for the elucidation of speculative truth, and for the rectification not of unsound organs and functions but of unsound theories and explanations, and prosecuted throughout by the aid of the most refined methods and instruments, come ultimately to bear upon such matters as catheterisation and alkalescent urine. I would not, however, be thought to undervalue the worth of researches carried on at whatever cost with the sole object of procuring those correct notions as to the way in which processes, even wholly beyond our power of modification, have been and are being carried on. It is a great and positive gain when we get rid of one false hypothesis, one single false formula which by frequent repetition has attained to the dignity of a philosophic axiom, and acquired a sort of prescriptive right to "warp us from the living truth". The Chemists, as I am informed, are conspiring to effect what the old Greeks would have called a "Catalysis" of the kingdom of "Catalysis" itself, and its banishment to the Limbo of Vanity, there to herd with Phlogiston and many other and younger as well as older unsubstantial Idola Theatri; and though these alterations of theory may not as yet have affected the oxygen we breathe, nor even have enabled us as yet to regulate with any greater precision the processes of fermentation with which we have for so many ages had an empirical familiarity, they have given us at least a warning as to maintaining always that proper diffidence as to the all-sufficient validity of our theories, by whomsoever promulgated or endorsed, which is so constantly of avail in actual practical work. The phenomena, let me add, to account for which the hypothesis of Pangenesis has been recently (Darwin, *Animals and Plants under Domestication*, 1868, ii, p. 403) put forward provisionally, are and will, we may believe, always remain, beyond our control; but there will be no one, I suppose, who will not feel an interest in observing how the revelations in the all but infinite divisibility of "germinal matter", which we owe to Professor Beale, may come to bear upon the explanation of the marvellous phenomena of reproduction and hereditary transmission. Nor can I leave this subject without remarking that it is in great probability upon the self-multiplication of such infinitesimal particles as this hypothesis of Pangenesis postulates that processes, to the naked eye the very reverse of Genesis, have been found to depend; and the Blue Book on the Cattle-Plague (*Third Report of the Commissioners*, etc., p. 151), will show you that here, too, we are dependent on the employment of the very highest powers of the microscope; and it is scarcely necessary to add that its employer was in this case Professor Beale.

If I have been short in speaking of the advantages which the histology of modern days has conferred upon its therapeutics, I might be shorter still in dealing with my third head—the dependence, namely, of the healing art upon the facts of Anthropotomy—that is to say, upon the naked-eye knowledge of the structure with which it has to concern itself. Some little, however, I must say with your permission. Some persons are inclined to think that there is some sort of antagonism between the interests of microscopic and those of naked-eye anatomy; and hints more or less obscurely expressed may be found to this effect here and there in writings even of the present day. It is in much the same spirit that persons are found to say that the sending of missionaries to the heathen abroad entails so much curtailment of similar work at home, and that others will say that the starting of any fresh charitable institution necessitates the subduction of so much from the funds available for those already on foot; and that others again will say that the encouragement of natural science is "inimical" to the progress and cultivation of literary and classical studies. Now, all these views depend upon the radically false assumption that intellectual and moral activities are limitable and measurable by certain quantitative conditions, just as a man's expenditure is or ought to be limited and measurable by his balance in the bank. This analogy is a wholly fallacious one, but it has nipped many an excellent project in the bud. A truer analogy is furnished us by the history of those infinitesimal scraps of germinal matter of which I was just now speaking, which are hard to destroy even with floods of carbolic acid and copperas, and which possess a faculty of self-multiplication wholly unparalleled within my experience in the history of the metallic objects of which we were just now speaking. Activity and earnestness, in fact, which are some of the best things, resemble some of the worst in being eminently contagious. The example of a strenuous labourer in one field, spreads into the weedy acres of his slothful brethren on the right and left; and the improvement of the microscope has but been accompanied by a more thorough and accurate working out of human dissection. Let us leave metaphor and general statements, and come to facts. I have in my possession a work written for the use of anatomical students in the University of Edinburgh—a place then, as now, at least on a level with the most advanced centres of such education elsewhere in Great Britain. Its title is, *The Anatomy of the Human Bones and Nerves, with a Description of the Human Lacteal Sac and Duct*, by Alexander Monro, M.D., late Professor of Anatomy in the University of Edinburgh. A new edition, carefully revised, with additional Notes and Illustrations, by Jeremiah Kirby, M.D., author of *Tables of the Materia Medica.* 1810." The date of its appearance takes precedence, therefore, by a dozen years at least, of the first appearance of an achromatic combination; and if the development of microscopic zeal had really been injurious to the diffusion of thorough anthropotomical knowledge, we should find here in perfection that precision and fulness which *ex hypothesi* are the exclusive fruits of individual attention and undistracted concentration. Now, a few weeks ago, I was pursuing some anatomical researches into the homologies of the shoulder-joint muscles, and by the suggestion of one or two of my friends, amongst whom I may mention Dr. Boycott, I took up the line of argument for homological identity which innervation furnishes. Being deep in the country, I was reduced to consult, in the absence for the moment of other books, the work I have just mentioned, for a small matter in the composition and decomposition of the brachial plexus. This is what I found to satisfy my inquiry in a book expressly treating, you will please to recollect, of the nerves, and written by one of those "famous old anthropotomists" who were not distracted by "microscopische Spielereien." "The fourth cervical nerve, after sending off that branch which joins with the third to form the phrenic, and bestowing twigs on the muscles and glands of the neck, runs to the armpit, where it meets with the fifth, sixth, and seventh cervicals, and first dorsal, that escape in the interstices of the *musculi scaleni*, to come at the armpit, where they join, separate, and rejoin, in a way scarcely to be rightly expressed in words; and, after giving several considerable nerves to the muscles and teguments which cover the *thorax*, they divide into several branches, to be distributed to all parts of the superior extremity. Seven of these branches I shall describe under particular names." (P. 291.) These seven branches have the particular names of Scapularis, Articularis, Cutaneus, Musculo-Cutaneus, Muscularis, Ulnaris, and Radialis. Of such little trifles as the connexion of the second and third cervical sympathetic ganglia which give off heart-nerves, with the arm-nerves, upon which connexion the pain down the inside of the arm in heart-disease Niemeyer (ii, 338) supposes may, and the older anatomists would have said *must* depend; as the subclavius nerve and its connexion with the phrenic, and so with the shoulder-tip pain in liver-disease, we have just as little mention made as we have of the nerves supplying those small muscles, the pectorales. Surely knowledge is not like a volcanic archipelago, where the upheaval of one mass of solid ground entails the submergence of another; rather it resembles some vast table-land which is rising, now and then at accelerated rates of progress, out of the waters, and has, in these days of the subdivision of property and labour, its broad and continuous surface seized upon, partitioned out by enclosures, and put under cultivation by various occupants so soon as ever its outlines are recognisable.

My last topic in this division of my address is the connection which Comparative Anatomy has with Medicine and Surgery, and the bearing which a cultivation of this department of Biology has, or is likely to have, upon the interests of the profession. Of the benefits which Comparative Anatomy receives at the hands of medical practitioners there is little occasion to speak; or rather Mr. Parker's volume on *The Shoulder Girdle*, just published by the Ray Society, may speak for me; it is only less vast than valuable, and will constitute the commencement of a new epoch in the science. But what I have to speak to is, not the benefits which Comparative Anatomy receives, but those which it can confer. And I believe that the educational working of this study is perhaps the particular line along which the best fruits for the profession, and for the public, may reasonably be looked for. Any study which forces its students into that most valuable knowledge—the knowledge of when a thing is proved, and when it is not—is *ipso facto* an ally of real medicine, and a deadly enemy of quackery. A person who has in any way become acquainted with what reasoning and reasons are in one subject, will be apt to look for similar reasons and similar reasoning when he has to deal with another, and especially if that other be a closely allied subject. And when natural knowledge shall have become more widely diffused through the general public, an end which we may hope to help towards accomplishing by means of our School of Physical Science, quackery, with its painful spectacles of reputation and confidence unfairly withheld and more unfairly bestowed, will cease to flourish in all its present exuberance. A worker in Biology gains reputation accordingly as he is acute enough to observe and generalise for himself, and accordingly as he is conscientious enough to make himself master of and duly acknowledge the labours of others. It cannot be said that learning, talent, and labour are equally certain to secure prominence either for a medical doctrine or a medical practitioner. The medical doctrine obtains currency, acceptance, and popularity, and the confidence of an ill-educated public, by virtue ordinarily either of the effect on the imagination which its paradoxical character secures for it, or of the effect on the ear of the alliterative ring of the phraseology in which it is embodied. The success of persons, again, in the medical profession and in some other walks of life too, may depend on personal qualities quite other than any connected with diligence, attainment, or ability—upon, say, certain peculiarities of manner, either in the way of polish or of that of roughness. The greatness of the stake, his own health, for which a man is playing when he adopts a particular doctrine or doctor of medicine, no doubt disturbs the balance of such powers of judgment as he may have, much as in Gessler's hopes the placing of an apple on the head of Tell's son disturbed the steadiness of the father's hand and eye. But habits of thought, as of other things, may be acquired by a proper course of education, and habits, like drill, steady a man under emergencies; and a scientific training enables a man to set about forming a right judgment in a right way and upon proper and legitimate grounds, even when nothing less than life itself is at stake. If a knowledge of such a subject as Comparative Anatomy, and of its external aspect, scientific Zoology, is a knowledge which will give the layman more power of forming right decisions, it is perhaps needless to labour long at showing that this selfsame knowledge may be of the like service to the professional man. A sort of practical proof of its value is furnished us by the fact, that in Edinburgh as in Germany a dissertation on some subject of Comparative Anatomy is often accepted as a thesis for the degree of Doctor in Medicine. By such a regulation we have the obvious fact recognised, that the same sort of skill in the employment of methods, the same familiarity with organs, tissues, and functions, the same reasoning powers, are employed in investigating the problems of life wheresoever existing. The second aphorism of the *Novum Organon* applies to the one as to the other line of investigation, that of Human, and that of Brute Biology:—*Instrumentis et auxiliis res perficitur;* and alike in both, *nec manus nuda nec intellectus sibi permissus multum valet.* Comparative Anatomy finally, besides thus benefiting the public firstly, and the profession secondly, is of use to Human Biology and Medicine, as such, inasmuch as it casts so much light upon the problems which the more highly evolved organs, functions, and other relations of our own species, render in a much higher, and, indeed, sometimes in the highest degree difficult or impossible to investigate. Answers to what are riddles in Human Anatomy and Physiology are often to be found given in very simple language in the structures and functions of the lower and lowest animals. Of such hints furnished by the brute creation towards the proper solution of certain problems which concern each and all of us in dealing with our own species, I will herewith, by your permission, give a few. Of the use of rest towards the repair of injuries I presume there is little doubt, but the best established teaching is all the better for the support of a few concrete examples. Now, in what animals do we find the greatest capacity for repair of injuries, and for the reproduction of lost parts and limbs? Precisely in those in which the whole of life is carried on at the lowest rate, and in the nearest approximation to rest which is compatible with animality,—in those animals, to wit, which breathe water, and have but its scanty percentage of dissolved oxygen to sustain their animal functions. The metamorphoses which an animal may have undergone, or may have to undergo, have very little directly to do with its power of recovery from injury, or of regenerating a lost limb. No animals go through more complex metamorphoses than do many of the Crustacea, and nearly all the Echinodermata; yet assuredly no other class has a larger capacity for the reproduction of lost fragments of their bodies. Now the latter of these classes is exclusively, and the former all but exclusively, aquatic. The more perfect, again, an insect's metamorphosis, *i.e.*, its power of building up tissues and organs, the more perfect ordinarily, or rather the more profound, has been its quiescence as a pupa. Indeed, the very exception here proves the rule, and proves it to be a good one; for such hemimetabolous insects as, like May and dragon-flies, come, in their imago state, to differ almost as much from their larval forms, as the imagos of many holometabolous insects do from their larvæ, are during those preparatory stages as completely aquatic as any crustacean (Westwood, *Introduction to Entomology*, vol. ii, pp. 29, 38; Carus and Gerstaecker, *Handbuch der Zoologie*, p. 29). I am aware that there is such authority as Mr. Paget's (*Surgical Pathology*, ed. Turner, p. 123), and Mr. Darwin's (*Animals and Plants under Domestication*, vol. ii, p. 15) in favour of regarding the power of repairing injuries as standing in an inverse ratio to the amount of metamorphotic change through which an animal has gone; and I must therefore take the more pains to show that my explanation, to the effect that this happy power depends mainly upon the peacefulness and quiet with which the various processes of life are carried on ordinarily, and after the mutilation, is the truer one. My opponents' case would rest on such facts as these which follow. I will give them first, and then show how they really support my views. The larvæ or tadpoles of the tailless Batrachia, but not the adults, says Dr. Gunther (Darwin, *loc. cit.*, and Owen, *Comparative Anatomy of the Vertebrate Animals*, vol. i, p. 567), are capable of reproducing lost limbs. So with insects, says Mr. Darwin, *in loco*, "the larvæ reproduce lost limbs, but, except in one order" (the Orthoptera, and amongst them the Phasmidæ*), "the mature insect has no such power." There is, however, one common property which lies at the bottom of the power of repair both in the larval forms and in the perfect adult animal, both in the invertebrata and in the vertebrata specified. This common property is the *comparative insignificance of the apparatus for aërial respiration:* in all alike—in the larva of the anurous amphibia, in the larva of the butterfly, and in the orthopterous insect—the lungs or the tracheæ, as the case may be, contrast to disadvantage with those of their congeners, or adult representatives, which have come to differ from them in having lost the power of reproducing lost parts. But active respiration is a prerequisite for activity of function and rapidity of rate of vital processes; and the absence of this is, according to my argument, the cause of the presence of the reparative power. The lungs are of course all but wholly in abeyance in the tadpole, and the tracheæ have no vesicular dilatations developed upon them in the caterpillar forms of any insect, nor in the adults of the non-volant Orthoptera. In the Phasmidæ, the curious "walking-stick" insects, we observe just the same sluggishness, combined with great tenacity of life, which we observe among mammals in the Bruta. Let me add some more facts in further illustration of my position. The Myriapoda, which Mr. Newport has shown to possess this power of repair up to the time of their final moult, are so little like the more typical insects, as to have been classed with the Crustacea, by no less an authority than Von Siebold. Any one, again, who will compare the simple non-cellular lung of the adult Batrachian newt *Salamandra Aquatica*, which possesses an unlimited power of repair *as an adult*, but *not in its young stages* (Bonnet, *Œuvres Hist. Nat.* v. Pt. i, p. 294), with the lung of the adult frog, will have little difficulty in understanding how their power of repair differs out of all proportion more than the amount of the metamorphotic changes they severally go through. The land Salamander, *Salamandra Terrestris*, has, so far as I know, escaped the hands of Spallanzani and Bonnet; its adult lung being little inferior in extent and development of spongy matter to that of the adult anura, I should expect the power of regeneration to be reduced to zero as in them. If the teaching of Comparative Anatomy has forced me to differ from the teaching of Mr. Paget, there are other facts in the same region of research which, as it seems to me, put one of his other many valuable doctrines in a clearer light than even his own clear enunciation of it. "Each man's capacity," says Mr. Paget (*Lancet*, Aug. 24th, 1867), "for bearing a surgical operation may best be measured by the power of his excretory organs in the circumstances in which the operation will place him." Now, I am inclined to ascribe the very considerable, and, indeed, on my views, somewhat exceptional powers of reproduction which two sets of air-breathing terrestrial animals, the pulmonate snails and the earth-worms, possess, to the great development of their excretory apparatus. Living, as they do very ordinarily, in atmospheres laden with carbonic acid from decaying vegetable matters, they must get rid of the products of their waste and wear in the shape of solution in fluid; and the alkaline secretion with which the bodies of both are so abundantly slimy, furnishes just the required medium. When injured or mutilated, these animals can withdraw themselves pretty completely from the atmospheric oxygen by shedding out this secretion, and it at the same time disembarrasses their system from any excess of carbonic acid which may be generated within it. Thus they can attain the most perfect possible condition for repair and regeneration, the minimum of activity of all save the excretory organs; and I submit that it is possible that these two conditions may be connected as cause and effect, just as in the reverse direction a defeat of surgical skill may be connected with the presence of a fatty kidney or liver, or the excitability of a nervous system. It is going perhaps too far to attempt to explain the much greater power of repair which Amphibia possess as compared with either Pisces below or Reptilia above them to the larger size, and consequent smaller aggregate surface and less perfect aërating power of their blood-cells, and to the transpirability of their naked skins, which execute such important depuratory work for them, and are so closely connected and correlated with their lungs, livers, and kidneys. It is curious, however, and interesting to remark that the older anatomists, in commenting on the very obvious solidarity of these latter organs, went on, in their ignorance, I imagine, to a great extent, of the nature of amyloid and other degenerative changes in such cases, to observe that it was illustrated by the "fact" that, as the lungs grew smaller, so the kidneys grew larger in phthisis.* (See Funke, *De Salamandræ Terrestris Vitâ*, 1827, and Meckel, *Pathol. Anat.*, vol. i, 613, 646.)

Verloren, as quoted by Donders ("On the Constituents of Food," translated by W. Daniel Moore, M.D., p. 24), has shown how the history of insects bears on the question which we are this afternoon to have expounded to us of the "Relation of Food to Force"; and the very title of Bischoff's and Voit's work, *The Laws of the Nutrition of the Carnivora*, shows how this subject, to which I shall no further allude, but leave it to the able handling to which it has been entrusted, is dependent on the life, and the modes of life, of the lower creation. But I would say that it was from a study of the structures of the class of animals last mentioned —viz., the Carnivora—that I first came myself to be convinced that the uterine mucous membrane would, if properly looked for, be found in all animals alike to stretch after delivery over the area previously occupied by the placenta; and assuredly there is no one of the many complex and hard to be investigated problems of human physiology to which we are more bound to be thankful for light whencesoever obtained; and this, though the light come, as, in justice to Dr. Matthews Duncan and Dr. Priestley, I must say it did, in the way of illustration and confirmation rather than in that of discovery. (See Zoological Society's *Transactions*, 1863, p. 289; Dr. Duncan's *Researches in Obstetrics*, p. 206.)

These facts of the structural and functional arrangements of the lower animals have been used recently to illustrate some other points of uterine pathology and therapeutics in our own species. In a work by Dr. F. A. Kehrer, of Giessen, in two parts, the former of which was published in 1864, and treats of "Die Zusammenziehungen des weiblichen Genital-canals," and the second of which was published in the present year, 1868, and treats of "Die Vergleichende Physiologie der Geburt des Menschen und der Saugethiere," I find no little light thrown upon the question of relative position, whether as cause or effect, in which early and late abortions respectively stand to imperfect involution of the uterus. And I find also *in loco* a very distinct admonition as to the inexpediency of allowing fear of decomposition to terrify us into what is called, "meddlesome midwifery." These extracts I think you may be interested to hear; I will simply quote them, and leave you, who are so well able to do it, to make the application of them for yourselves. "Finally, let it be remarked that in rabbits in the earlier stages of gestation I saw the fœtus with its fœtal envelopes protrude entirely out of the os uteri, whilst the placenta still remained firmly attached in the uterus; a phenomenon which indicates either that in the earlier stages of pregnancy the placenta materna is less lacerable, or that the motor power of the uterus is a relatively smaller one, and one which finds its analogy in the occurrences which take place in abortions and premature deliveries in the human subject." Heft i, p. 52. In his second Heft, p. 166, Dr. Kehrer, in speaking of the retention of the placenta being sometimes followed by symptoms like septic poisoning and sometimes not, has words to the following wise effect:—"What chemical changes may be set up in the retained placenta is clearly dependent hereon, whether the after-birth is shut off from contact with the air by the genitalia or not; for, if air find access to it, the membranes of the ovum putrefy; if air be excluded, a process of decomposition, probably identical with one of maceration of the fœtus, but wanting further chemical investigation, is set up. The occurrence of the one or the other eventually is so far of importance, as thereupon hangs the after-effect of a retention of the placenta upon the general health. In fact, we observe in women, just as in the animals mentioned, sometimes only insignificant symptoms, sometimes emaciation and sickness; sometimes, as after the absorption of putrilage from the decomposing membranes, a violent, even a fatal pyæmic fever. In the face of these facts, it seems to me to be rational in ruminants, in which the cotyledon can only be detached from the uterus by considerable violence, and scarcely even then, completely to *avoid all introduction of the hand into the cavity of the uterus after delivery*, just with the object of keeping it free from the ingress of air, and to leave the separation of the placenta rather to the natural forces. We shall thus best avoid putrefaction being set up in the cavity of the uterus, and so expose the animal the less to the risk of pyæmia." I have not quoted from the recently published works of Dr. Matthews Duncan and of Dr. Graily Hewitt, though I have specified in my notes the pages of those works which bear upon what I have just quoted from a foreign source. I have forborne to do this, not because I think those works less, but because I think them more valuable, and I presume they will be in your hands as they have passed through mine.*

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* There seems to be some little doubt whether even a a Phasma can regenerate lost parts after its last moult, and some authorities would not consider it adult till after such ecdysis. The crustacea, however, moult many times after attaining the adult state, *i.e.*, a state in which they can reproduce *the species.*

* For accounts of experiments as to regeneration of lost or destroyed parts, see Darwin, *Animals and Plants under Domestication*, vol. ii, p. 15, *ibique citata.* Owen, *Comp. Anat. of the Vertebrata*, vol. i, p. 567. Newport, *Phil. Trans.*, vol. cxxxiv, 1844, *ibique citata.* Paget, Surg. Path., ed Turner, p. 123. Spence Bate, *Ann. and Mag. Nat. Hist.* for the current month, Aug. 1868, citing Mr. Lloyd of Hamburg, p. 118. McIntosh, *Experiments on Carcinas Mænas*, p. 28.

The human anatomist who has once seen in the lower animals the structures which represent, as it were, in exaggeration or caricature, the human costo-coracoid membrane; the tuberculum pubis, with the homologue of the clavicle which is attached to it as Poupart's ligament; or the supracondyloid process of the humerus—is not likely to forget their existence when, with either scalpel or bistoury in hand, either for the ligature of an artery or the setting free of a hernia, he has to deal with their representatives in the human frame. But, if I am right in thinking that the ciliary muscle in the eye would not have secured for itself the notice which it has done of late years, had it not been for the much more obvious manifestation of a similar, if not homologous, muscular apparatus in the eye of the bird, I apprehend that I am justified in saying that every surgeon who performs Mr. Hancock's operation of cylicotomy for glaucoma is under obligations, whilst so doing, to Comparative Anatomy and Sir Philip Crampton. I need not speak of the bearing of the discovery of this muscle in the human eye by Mr. Bowman upon the physiology of its adjustment to clear vision at varying distances. Pure Physiology, again, unassisted by Comparative Anatomy, has made out much of pure function; but, much as has been attempted in the way of experiment with infusions of pancreatic substance, and with the introduction of cannulæ into the duct of the gland, I am inclined to think that a comparison of the relative size of the gland in the carnivora and the herbivora respectively, in a dog, say, and in a rabbit, points as unmistakably as any of the lines of experiment just referred to—which, by the very nature of the case, are greatly beset with several sources of fallacy—to the fact that this salivary gland is concerned as much with the digestion of albumen and fat, as with that of starchy substances. With the remark that Hyrtl's discovery (*Wien. Zool.-Bot. Ges.*, 1861, cit. Henle, *Handb. der Anat.*, ii, 310) of the diverticular character of the glomeruli in the kidney of the selachians and amphibia bears not a little upon the existence of a similar arrangement between the vasa recta and the renal arterioles in the human kidney, whereby, as by the direct communication shown by Schrœder van der Kolk to exist between the arteries and veins of the *pia mater*, the capillary circulation may be skipped, and the tissues in relation with it left at rest, I leave this part of my subject, and begin the concluding portion of my address.

In this part of my address I propose to consider, mainly by the light of recently attained biological results, the value of two great rules for the conduct of the understanding, each of which has a legitimate sphere of application, but the former of which enjoys, it seems to me, more and the latter less than its deserved prominence. The first of these two regulative principles has received the endorsement of Newton, and it stands as his first "Regula Philosophandi", at the commencement of the Third Book of the *Principia.* It was known in the days of the schoolmen as the "Razor of Occam", and in later days it has been styled the "Law of Parsimony" or "Economy". Newton enunciates it as follows:—"Causas rerum naturalium non plures admitti debere, quàm quæ et veræ sint et earum phænomenis explicandis sufficiunt. Dicunt utique philosophi: 'Natura nihil agit frustrà;' et 'Frustrà fit per plura quod fieri potest per pauciora.' Natura enim simplex est et rerum causis superfluis non luxuriat." I know that this Regula has great influence on the minds of many biologists, and I believe that this its influence is by no means always for good. This is not a subject in which authorities ought to count for much; but I may say that, while the names of Aristotle, Malebranche, Maupertuis, St. Hilaire, Goethe, Bichat, and Dugald Stewart may be quoted in approval of this rule, the names of Bacon, Mill, and De Candolle may be brought forward by those who repudiate it or curtail its application. Our motto, however, is "Nullius addictus jurare in verba magistri"; and our business is to ask, not what men have laid down, but how Nature operates. Can a phenomenon have more than one cause, or can it not? Is it possible, for example, and to put the question in a concrete and most practically interesting point of view at once, that a fever which we know can spread by infection or contagion, can also originate spontaneously? I rather incline, though but doubtfully, and after an imperfect examination of imperfect data, to anticipate that a negative answer to this latter question will turn out some day to be the true one; but I do not know that there is anything in the analogy of Nature to compel us to incline towards this negative conclusion *à priori.* Such a phenomenon, at all events, as a living animal, is often enough produced by two or more distinct processes, within the limits of the same species: as, for example, from ova of different character, summer ova or winter ova, impregnated or unimpregnated ova; by fission or gemmation; through two different series of metamorphotic changes. And such a phenomenon as the production of a particular tissue may depend—in the case of adipose tissue, for example—upon the employment in Nature's laboratory of one or the other of two different chemical compounds. In each and all of these cases, the maxim which has many a time been sonorously enunciated in these Schools, "Entia non sunt multiplicanda præter necessitatem", would, if listened to, have closed our ears and eyes to at least one-half of the truth. That Bacon would have classed this maxim with his Idola Theatri, I think I am justified in saying, for that in the very next section (Section xlv) of the *Novum Organon* to that in which he treats of these delusive notions, I find these words:—"Intellectus humanus ex proprietate suâ facilè supponit majorem ordinem et æqualitatem in rebus quàm invenit;" and if I am told, as by Mr. Mill (*Logic*, vol. ii, p. 379, ed. 1846), that Bacon, in the actual practice of investigation, acted as though there were no such thing as Plurality of Causes, I need only answer that herein his practice did not differ from his precepts at all more widely than does the practice of many other writers, of many practising, of many teaching doctors, differ from theirs. I have a satisfaction in quoting the living De Candolle, who enjoys one of the first and best deserved scientific reputations of the day, in repudiation of Maupertuis' famous principle of "least action". De Candolle writes thus in his *Geographie Botanique*, vol. ii, p. 115—"Nous aimons à croire aux moyens simples, peut-être uniquement à cause du peu de portée de notre esprit."

What, then, is the legitimate application? where does Nature really bind herself to the observance of a "Law of Parsimony"? In, as I think, three distinct lines of her operations.

Where an organ can be diverted from one and set to discharge another function, there Nature will spare herself the expense of forming a new organ, and will adopt the old one to a new use. She is prodigal in the variety of her adaptations, she is niggard in the invention of new structures (Milne-Edwards, cit. in Darwin's *Origin of Species*, p. 232). The complicated arrangement of co-operating muscles whereby the bird's third eyelid is drawn across to moisten and wipe its eyeball without undue pressure on the optic nerve, is manufactured, if so we may express ourselves, out of the *suspensorius* muscle, which in other animals has but the simple function of slinging up the eye. The scarcely less complex and beautiful arrangement of the bird's *levator humeri* is the result of a modification of a subclavius muscle.

Secondly, where, by availing herself of the inorganic forces always at work and available in the circumambient medium, whatever that medium may be, or where, by the employment as in what is called "Histological Substitution", a lowly organised or vitalised tissue, such as elastic tissue, she can spare herself the manufacture of such expensive structures as muscle, there Nature adopts a line of practice which we call a Law of Parsimony. Where a suspensory muscle for the eye can be dispensed with altogether, as where there is a more or less closed bony orbit, as in ourselves, and an air-tight cavity formed by it together with the soft tissues lining it, there atmospheric pressure is trusted to to steady the eye in the socket, as it refixes the tooth loosened by inflammation, and holds the head of the femur in the acetabulum. The eye of the burrowing mole, on the other hand, loses its *recti* and *obliqui* before it verges itself into total extinction; but this very *suspensorius* it retains after the wreck of its other property, as its guardian in the undivided undifferentiated temporo-orbital fossa.

Thirdly, where matter that would otherwise be wholly refuse, and to be rejected, can be utilised, there Nature exemplifies this law by her "utilisation of waste substances". The transverse colon, with its various contents, aids and ekes out the elastic recoil of the lungs in expiration; and by its near approximation to the stomach, has, as Duverney long ago pointed out, the shock of the ingestion of fresh food propagated directly to it as a warning against sluggishness in the discharge of its own function. The air we use in speech, as Mr. Paget has pointed out, we could not use for breathing.

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* Dr. Graily Hewitt, *The Diagnosis, Pathology, and Treatment of Diseases of Women.* Second edition, 1868, pp. 32, 342, 393. Dr. Matthews Duncan, *Researches in Obstetrics*, pp. 276, 284, 285. Cazeaux, *Traité des Accouchemens*, pp. 334, 349.

Many other instances of the "Law of Parsimony" might be given; but I know not of any which cannot be reduced under one or other of these three heads; I know of none, that is, which can be in any way held to negative the tenability of a law of "Plurality of Causes".

The second great principle for the regulation of the understanding of which I wish to speak, is one which, I believe, possesses less currency and notoriety, and is less observed than it deserves. This canon bids us, in considering a complex phenomenon, to be most careful that we omit none of the circumstances which can by any possibility be of the essence of the case. And as the possibilities of Nature are all but infinite—as, for example, the investigator of problems of geographical distribution knows well that a "secret bond" may bind up together, and that inextricably, the interests of organisms removed as far as possible to all appearence from each other in the scale of life; as a fly or a plant may, by its increasing and multiplying, make half a continent uninhabitable or inhabitable by the highest mammals; I apprehend that in biological and medical problems, by the phrase "all the circumstances which can by any possibility be of the essence of the case", we mean practically, "*all* the circumstances of the case", without any qualifying limitation. But we will let Descartes, to whom the enunciation of this rule is usually and, so far as I know, rightly assigned, enunciate it for us in his own words. These run thus (*Œuvres*, tom. xi, 1826, ed. V. Cousin, p. 23):—"Règle Septième pour la Direction de l'Esprit. Pour compléter la science, il faut que la pensée parcoure d'un mouvement non interrompue et suive tous les objets qui appartiennent au but qu'elle veut atteindre et qu'ensuite elle les resume dans une énumération méthodique et suffisante." Some of the very greatest advances which have been made of late in practical diagnosis have been made in the spirit of this recommendation. The application of a chemical test to the urine for information as to the expediency of giving or withholding wine in the case of a sinking life, would have seemed to Swift, could he have had any idea either of such a procedure or of the employment of a sphygmograph for the same object, more absurd than any of the follies he ascribed to the philosophers of Laputa. But as Archbishop Whately, a name to be greatly honoured here, and, indeed, wherever else liberality, and fearlessness, and ability are held in respect, has well pointed out, the absurdities of Laputan aspirations are less wonderful than the actual attainments of modern science. And to these results science has attained, for that her votaries have known that what may seem to Swift, and such as Swift, to be but curious and dilettante, otiose, or even disgusting, may turn out ultimately to be essential elements in problems, the solution of which promote directly and greatly the interests of man, and the glory of Him to whom nothing is common nor unclean. Could anything have seemed at first sight to be more impertinent, more otiosely curious and trifling, than to inquire during an epidemic of cholera what was the nature of the subsoil in the area it was ravaging, to what depth it was porous, and at what level the water was, and had been previously, standing in it? Yet, as I think, Von Pettenkofer has at last fought out and won his battle on these points (see *Zeitschrift für Biologie*, Bd. I, Heft iii und iv, 1865; Bd. II, Heft i, 1866; Supplemental Heft, 1868, p. 54); and the distinguished President of our "Public Medicine" section, Mr. Simon, who is as little prone as most men of science to take up over readily with any new wind of doctrine, has told us (*Report of the Privy Council* for 1866, p. 366 and 457) that certain of his carefully observed cases of the distribution of this disease seem to illustrate and find their explanation in Von Pettenkofer's theory. I have pleasure in adding that I see, by papers published by the illustrious Professor of Munich in the *Allgemeine Zeitung* for June last, that he has been able to show that, amongst all the other circumstances of the case at Gibraltar and at Malta, there were still to be found, all guessing and objections notwithstanding, the porous subsoil and the retreating ground-water, as factors in the complex constituting an area or arena for cholera. Let us attend to and note always all the circumstances in every complex phenomenon which we have to investigate, but let us not betake ourselves over-hastily to the process of eliminating antecedents, until we be quite sure that they do not enter as factors into its causation.

I may say, in conclusion, that attention to this seventh rule of Descartes might have saved such students of Natural Science as have fallen into materialism from falling into it. The Physiologist, as such, has nothing to do with the data of Psychology which do not admit of being weighed or measured, nor of having their force expressed in inches or ounces. This language, which I long ago employed myself (*Nat. Hist. Rev.*, April 1861; *Med. Times and Gazette*, March 15, 1862), coincides with an utterance which I am glad to see in Mr. Herbert Spencer's recently issued first number of his new edition of *Principles of Psychology*. There (part i, chap. i, p. 48) Mr. Spencer says, "It may safely be affirmed that Physiology, which is an interpretation of the physical processes which go on in organisms in terms known to natural science, ceases to be Physiology when it imports into its interpretations any psychical factor, a factor which no physical research whatever can disclose or identify, or get the remotest glimpse of." But, I apprehend, if the Physiologist wishes to become an Anthropologist, he must qualify himself to judge of both sets of factors. There is other science besides Physical Science, there are other data besides quantifiable data. Schleiden, a naturalist of the very first order, compares the Physical Philosopher (Materialismus der neueren deutschen Naturwissenschaft, p. 48), who is not content with ignoring, without also denying the existence of a science based on the consciousness, to a man who, on looking into his purse and finding no gold there, should not be content with saying, "I find no gold here," but should go further and say, "there is no such thing as gold either here or anywhere else." It is interesting to note that here in Oxford, till within a few years of the present, we narrowed the application of the word "Science" in what seems now to be a curiously perverted fashion. For, ignoring all the physical world as entirely as though we had been already disembodied, we used the word to denote and connote only Logic, Metaphysics, and Ethics. By a "student of science" in my undergraduate days was meant a student of the works of Aristotle, Kant, and Sir William Hamilton. The wheel has since made somewhat of a circle; our nomenclature, like much else belonging to us, is altering itself into a closer correspondence with the usages and needs of the larger world outside; the so-called "student of science" of the year 1850 is now said to go into the "School of Philosophy;" and "the student of science," as our terminology runs in the year 1868, will be found at the Museum studying the works of Helmholtz, Miller, and Huxley. I do not say this by way of triumph, but rather in that of regret, little disposed or used though I am, and hope always to remain, to regret or deprecate change as such. For there is a philosophy of both subjects, and a science also in both; and I would hope that both the one and the other might still retain a lien on the two words and the two things, nor suffer its rival to establish a claim for sole possession by its own default in exercising a right of usage.

Advocates of the dignity of man are wont to regard, or to profess to regard, with something like horror, doctrines which would hint that either his bodily structures or his mental faculties, his "more pure and nobler part," may have attained their perfection in the way of gradational evolution. But it is not clear to me that the horror expressed for these conclusions is much more legitimate than the arguments with which they have been assailed by Prime Ministers and others in the Sheldonian Theatre close by and elsewhere within our precincts. For dignity rests upon responsibility—a man is worthy or unworthy, accordingly as he can or cannot make a good answer when called upon by a voice, either from within or without, to account for his conduct or for his character. And just as a man is responsible for the employment of the wealth he possesses to the Government under which he is suffered to enjoy that wealth, no matter in what way he may have become possessed of it, whether by the hereditary transmission of a family estate, or in any other of several feasible and conceivable ways, so is a man responsible for the employment of his corporeal and mental faculties, howsoever he may have been allowed to become seized of them, to that larger and largest Government under which he has his being. I believe, however, that, if men would take as much and the same care in these psychological questions as the physiologist does in his experiments and observations, to overlook none of the conditions and circumstances of the entire complex of phenomena upon which they undertake to decide, they would come to see that above, and often behind, but always beside and beyond the whirl of his emotions and the smoothly fitting and rapidly playing machinery of his ratiocinative and other mental faculties, there stands for each man a single undecomposable something —to wit, himself. This something lives in his consciousness, moves in his will, and knows that for the employment and working of the entire apparatus of feelings and reasoning it is individually and indivisibly responsible. Its utterances have but a still small voice, and the turmoil and noise of its own machinery may, even while working healthily, entirely mask and overwhelm them. But if we withdraw ourselves from time to time out of the smoke and tarnish of the furnace, we can hear plainly enough that, howsoever the engine may have come together, and into its present being, the engineer, at all events, is no result of any processes of accretion and agglomeration. Science, business, and pleasure are but correlatives of the machinery in its different applications and activities; *we* are something besides all this, manifesting ourselves to others in the decisions of our will, and manifesting ourselves to ourselves in our aspirations and consciousness of responsibility.

> "And e'en as these are well and firmly fixed,
> In dignity of being we ascend."

I have heard this line or argumentation likened to an attempt to defend Sebastopol by balloons. "Whilst you are in the clouds, your city will be taken beneath your feet." But a position, though airy, may yet be impregnable. There are those present who will recollect how the highest placed forts of that town were never taken, but continued to the last to answer shot for shot, and shell for shell, to the Allies. The attacking forces knew not the strength of these north forts till they entered them, but when they entered them, they entered them as friends.

ON THE RELATION OF FOOD TO WORK DONE BY THE BODY;

AND ITS BEARING UPON MEDICAL PRACTICE.

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INTRODUCTORY.

Man, like other animals, is born, grows, comes to maturity, reproduces his like, and dies; passing in his lifetime through a cycle of changes that may be compared to a *secular* variation, by a metaphor borrowed from the science of astronomy; while, in his daily life, he passes through a smaller cycle of changes that may be called *periodic*.

From the time of the publication of Bichat's *Essay on Life and Death*, it has been admitted that man and other animals possess a double life, *animal* and *organic*, presided over respectively by two distinct, though correlated, centres of nervous force; of these, one *thinks*, *moves*, and *feels;* the other merely *cooks*, receiving the food supplied, changing and elaborating it into elements suitable for the use of the animal life.

In the lower forms of animals, the organic life becomes almost coextensive with the whole being of the creature, which simply digests, assimilates, and excretes, but barely feels or moves. In the higher forms of animals, and more especially in man, the animal life dominates over the organic life, which becomes its slave; and it exhibits the remarkable phenomena of *mechanical force*, of *geometrical instinct*, of *animal cunning*, and finally, in man himself, produces *intellectual work*, rising to its highest form in the *religious feeling* that recognises its great Creator, and bows in humility before Him. It is a simple matter of fact, and of every day observation, that all these forms of *animal work* are the result of the reception and assimilation of a few cubic feet of oxygen, a few ounces of water, of starch, of fat, and of flesh.

The general question of the relation of Food to Work would involve a consideration of the possibility of throwing a bridge across the gulf that separates the organic from the animal life, so as to connect the products of nutrition (taken in its widest sense) with the work of every kind accomplished by the animal life, whether mechanical or intellectual. We resemble the spiders of the heather on a summer morning, that float their gossamer threads into the air from the summit of a branch, in the hope that some stray breath of wind may fasten it to a neighbouring tuft, and enable the hungry speculator to extend the range of his rambles and his chances of food. Already a few feeble threads connect the chemistry of our food with the *mechanical work* done by our muscles. When these have been securely fastened, from the higher vantage-ground acquired, our little bridge of knowledge may possibly be extended to embrace the phenomena of the geometrical instinct of the bee or the cunning of the beaver; and our successors may even dare to speculate on the changes that converted a crust of bread or a bottle of wine, in the brain of Swift, Molière, or Shakespeare, into the conception of the gentle Glumdalclitch, the rascally Sganarelle, or the immortal Falstaff. At present, such thoughts would be justly regarded as the dreams of a lunatic, and I must claim your indulgence for having mentioned them. The history of science is, however, filled with such dreams; some never realised; others converted by time into realities so commonplace that the genius of their originators is habitually forgotten or underrated.

During childhood and youth, the food that we eat is used for the double purpose of building up the tissues of the bones, the muscles, the brain, and other organs of the body, and of supplying the force necessary for work done, whether mechanical or intellectual. In adult life, the first use of food almost disappears; for the bones, the muscles, the brain, and other organs, have already reached their full development, and act simply as the media of communication between the food received and the work developed by it.

Let us take, as illustrations, the muscles and brain, regarded as the organs by means of which mechanical and intellectual work is done. These organs resemble the piston, the beam, and the fly-wheel of the steam-engine, and, like them, only transmit or store up the force communicated by the steam in one case, and by the products of the food conveyed by the blood in the other case. The mechanical work done by the steam-engine must be measured by the loss of heat experienced by the steam in passing from the boiler, through the cylinder, to the condenser; and not by the loss of substance undergone by the several parts of the machinery on which it acts. In like manner, the mechanical or intellectual work done by the food we eat is to be measured, not by the change of substance of the muscles or brain employed as the agents of that work, but simply by the changes in the blood that supplies these organs—that is to say, undergone by the food used, in its passage through the various tissues of the body, before it is finally discharged in the form of water, carbonic acid, or urea.

The Divine Architect has so framed the animal machine, which moves and thinks, that the same blood, which by its chemical changes produces movement and thought, also repairs the necessary waste of the muscles and brain, by means of which movement and thought are possible; just as if the steam that works an engine were able, without the aid of the engineer, to repair the wear and tear of its friction and waste spontaneously. But no greater mistake is possible in physiology, than to suppose that the products of the changes in the blood, by which mechanical or intellectual work is done, are themselves merely the result of the waste of the organs, whether muscles or brain, on the exercise of which that work depends.*

The ancients, who derived all their knowledge from observation, and not from experiment, were well aware of the double duty imposed upon food in early life—of producing both the *secular* and the *periodic* variations of the body; or, in other words, of promoting growth, and of developing work. Their practical knowledge is summed up by Hippocrates in the aphorism, "Old men bear want of food best; next, those that are adults; youths bear it least, more especially children; and, of these, the most lively are the least capable of enduring it."†

The food consumed in twenty-four hours, including air and water, undergoes a series of changes of a chemical character before leaving the body, in the form of one or other of its excretions. Some of these changes develope force, and others expend force; but the algebraic sum of all the gains and losses of force represents the quantity available for work. This work must be expended as follows:—

1. The work of growth (*secular*).
2. The work of maintaining heat (*periodic*).
3. Mechanical work (*periodic*).
4. Vital work (*periodic*).

During childhood and youth, the work of growth is positive; for a certain proportion of the food used is employed in building up the tissues of the body, instead of being expended in actual work; it is, in fact, "stored up" in the body, as *vis viva* is stored up in the fly-wheel of machinery, and constitutes a reservoir of force that may be called upon at an emergency requiring sudden expenditure of force, or in case of illness, or in the gradual wasting of old age.

In adult life, and in old age, the work of growth ceases completely, except so far as is necessary to repair, from day to day, the small wastes of the organs employed in work; so that nearly the whole of the food employed is expended on the *periodic* work of the body.

Hence we can readily see the reason for the aphorism which asserts that food is more necessary for the young than for the old, and more required by those of a lively disposition, either of mind or body, than by others.

Hippocratic Doctrine of Innate Heat.

Hippocrates was well aware of the connexion between food and animal heat, although he erroneously regarded the animal heat as an innate property of the body that caused an appetite for food, instead of being itself produced by food. If we transpose his cause and effect, *mutatis mutandis*, all his maxims as to animal heat are true. Thus he says:

"Growing animals possess most innate heat, hence they require most food; . . . . but the old have least heat, and therefore require the least fuel."[*]

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* The very skill with which provision is made for the repair of the waste of the organ used as the instrument of work, may mislead the observer into supposing that the work itself may be measured by the waste of its instrument. Thus, it has been shown by Mr. A. Macalister, that the heart, which has imposed upon it the necessity of working day and night without ceasing, during life, is furnished with double the usual supply of blood through the coronary arteries, which are injected twice for every single beat of the heart. If, indeed, it were possible to assume that all muscles wasted equally for equal quantities of work, and also to measure separately the products of that waste, we might then assume the waste of the organ as the measure of its work. Neither of these assumptions, however, can be admitted; for it can be shown that different muscles act under different conditions, more or less advantageously, so that equal wastes would represent unequal works; and also, it is impossible to separate in practice the products of waste of muscles from those of the general changes of the blood.

† Γέροντες εὐφορώτατα νηστείην φέρουσι, δεύτερον οἱ καθεστηκότες, ἥκιστα μειράκια, πάντων δὲ μάλιστα παιδία, τουτέων δὲ αὐτέων ἃ ἂν τύχῃ αὐτὰ ἑωυτῶν προθυμότερα ἔοντα.—Aph. I, 13.

"The cavities of the body are naturally warmest in winter and spring. . . . In these seasons, therefore, most food must be given; and, since there is more innate heat, more nourishment is required, as may be seen in youths and athletes."[†]

These maxims, when translated into modern language, express the well known fact, that the chemical changes of food that take place in the body produce animal heat; and that the necessity for food to supply mechanical work is greatest with the young and active, while the necessity for the production of animal heat is the greatest in the cold seasons of the year. The direct connexion of food with mechanical work is expressed in the following maxims: "There should be no labour when there is hunger."[‡] And its converse, "Let labour precede meals."[§]

On principles such as those just given, the training of the athletes was conducted; and they were compelled to undergo a regular course, commencing with blood-letting and active purgation,[||] and consisting of systematic muscular exercise suited to the nature of the contest intended, accompanied by a dietary, of which the chief ingredients consisted of biscuits and pigs' kidneys, washed down by a minimum of water.

It is, truly, not much to be wondered at, that those who survived the training were formidable in the boxing-ring or racecourse.

The relation of animal heat to respiration is referred to by Hippocrates in a remarkable maxim: "Those persons have the loudest voices who have most [innate] heat, for they inspire the largest quantities of the cold air; and the product of two great quantities must be itself great."[¶]

Galen believed the heart to be the centre of "innate heat"; but he was well aware that increase or diminution of respiration caused increase or diminution of heat, and was intimately connected with it. Thus he says: "Since, therefore, the heart is, as it were, the hearth and fountain of the innate heat, with which the animal is pervaded," etc.[**] "The necessity for respiration is the greatest and most imperious guard of the innate heat."[††] "Those persons in whom the innate heat has been much cooled, breathe but little and slowly."[‡‡]

Lavoisier's Theory of Animal Heat.

The doctrine of "innate" heat, taught by Hippocrates and Galen, ruled in Medicine for 1500 years after Galen's death; until it received its death-blow from the genius of Lavoisier, who demonstrated in his celebrated memoir read before the French Academy of Sciences in 1783, that the source of animal heat is to be found in the combustion of the carbon of the body by the oxygen of the air received into the lungs by respiration. Lavoisier's experiments were repeated and confirmed in 1822 by Dulong and Despretz; and have formed the starting point for all modern investigations on the relation of food to work.

As already stated, the work done by food in the body may be divided into—1, the work of growth; 2, the work of animal heat; 3, mechanical work; 4, vital work.

Lavoisier arranged his experiments so as to exclude almost all kinds of work done, except that of animal heat. A Guinea-pig was placed under a bell-glass inverted over a surface of mercury, and a current of fresh air was allowed to circulate through the apparatus, being passed at its final exit through tubes containing caustic potash, which arrested the carbonic acid produced by the animal. In this manner, it was easy to ascertain the carbonic acid excreted, by the increase in weight of the tubes of caustic potash during the experiment.

Lavoisier found that his Guinea-pig, in ten hours, burned, on the average, 3.333 *grammes* of carbon; and this quantity of carbon he estimated from other experiments as capable of melting 326.75 *grammes* of ice at the freezing temperature. The same Guinea-pig was then placed in an ice calorimeter, and left in it for ten hours, during which time the heat of its body was found to have melted 402.27 *grammes* of ice at the freezing temperature.

If we use, instead of the co-efficient of combustion of carbon employed by Lavoisier, that now generally adopted from the experiments of Favre and Silbermann, the quantity of melted ice represented by $3\frac{1}{3}$ *grammes* of carbon would become 364.78 *grammes*, instead of 326.75 *grammes*.

We are, therefore, entitled to say that the heat of combustion of expired carbon determined by Lavoisier is equal to

$$\frac{36478}{402.27} = 90.68 \text{ per cent.}$$

of the animal heat developed, which is regarded as 100.

Two years later, in 1785, Lavoisier laid before the Royal Society of Medicine of Paris an account of further experiments, also conducted on the breathing of Guinea-pigs, by which he showed, that of 100 parts of oxygen absorbed by those animals, 81 only reappeared in the form of carbonic acid, and 19 parts disappeared altogether. Lavoisier considered that these 19 parts of oxygen were employed in the body in the combustion of hydrogen, the product of such combustion being water.

If we use Lavoisier's data just given, and the known atomic weights of carbon, oxygen, and hydrogen, we shall have, for 81 parts of oxygen in the form of carbonic acid, and 19 parts of oxygen in the form of water, the following quantities of carbon and hydrogen consumed by the respiration of a Guinea-pig in the same time.

$$\text{Carbon} = \frac{6 \times 81}{16}$$

$$\text{Hydrogen} = \frac{19}{8}$$

Multiplying these numbers by the heat co-efficients of Favre and Silbermann, we find—

$$\text{Heat produced by carbon} = \frac{6 \times 81}{16} \times 8080$$

$$\text{Heat produced by hydrogen} = \frac{19}{8} \times 34462$$

It has been already shown that the heat developed by the combustion of carbon in Lavoisier's experiment amounted to 90.68 per cent. of the heat emitted by the animal; hence the heat produced by the combustion of the hydrogen will amount to

$$90.68 \times \frac{19 \times 34462}{8} \times \frac{16}{6 \times 81 \times 8080}$$

=30.24 per cent. of the heat emitted by the animal. By adding together the heats due to the carbon and hydrogen, we find that Lavoisier's experiments, when fairly interpreted by the data of modern science, give the following results.

Heat produced by the combustion of carbon and hydrogen...120.92
Animal heat 100.00

Finally, in 1789, Lavoisier published further experiments, by which he showed conclusively that the consumption of oxygen by the body is notably increased by three causes:

1. By a lowering of the external temperature.
2. By the act of digestion.
3. By muscular exercise.

The experiments of Lavoisier were repeated in 1822 by Dulong and Despretz, and their results, when corrected, like those of Lavoisier, by using the modern heat co-efficients of carbon and hydrogen, are as follows. The mean of Dulong's experiments on sixteen animals and birds is 90.6 per cent. of the animal heat given out; the lowest number, 85.5, belonging to a kitten sixty days old; and the highest number, 99.4, belonging to a puppy fifty days old. M. Despretz obtained an average of 92.3, from sixteen mammals and birds; his highest number being 101.8, derived from an old female rabbit; and his lowest number being 84.2, derived from four owls.

The foregoing experiments left no doubt remaining in the minds of men of science as to the substantial truth of Lavoisier's doctrine of animal heat; and led immediately to a number of supplementary experiments, amongst the most remarkable of which were those of Regnault and Reiset.

Regnault directed his attention especially to the distribution of the oxygen absorbed by animals, between the carbon and hydrogen of their blood, or tissues, which had been laid down by Lavoisier in the proportion of 81 to 19. He found that the proportion was not a fixed one, but varied with the food in a very instructive manner.

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[*] Τὰ αὐξανόμενα πλεῖστον ἔχει τὸ ἔμφυτον θερμὸν, πλείστης οὖν δεῖται τροφῆς......... γέρουσι δὲ ὀλίγον τὸ θερμὸν, διὰ τοῦτο ἄρα ὀλίγων ὑπεκκαυμάτων δέονται.—Aph. I, 14.

[†] Αἱ κοιλίαι χειμῶνος καὶ ἦρος θερμόταται φύσει .... ἐν ταύτῃσιν οὖν τῇσιν ὥρῃσι καὶ τὰ προσάρματα πλείω δοτέον. Καὶ γὰρ τὸ ἔμφυτον θερμὸν πλεῖστον ἔχει, τροφῆς οὖν πλείονος δέονται. σημεῖον αἱ ἡλικίαι καὶ οἱ ἀθληταί.

[‡] Ὅκου λιμὸς, οὐ δεῖ πονέειν.—Aph. II, 16.

[§] Πόνοι σιτίων ἡγείσθωσαν.—Epid. VI, Sect. iv, 28.

[||] Ἕλκεα ἐκφύουσιν ἢν ἀκάθαρτος ἐὼν πονήσῃ.—Epid. VI, Sect. v, 32.

[¶] Οἷσι πλεῖστον τὸ θερμὸν, μεγαλοφωνότατοι, καὶ γὰρ ψυχρὸς ἀὴρ πλεῖστος. δύο δὲ μεγαλων μεγάλα καὶ τὰ ἔκγονα γίνεται.—Epid. VI, Sect. iv, 22.

[**] ἐπεὶ τοίνυν ἡ καρδία τῆς ἐμφύτου θερμασίας, ᾗ διοικεῖται τὸ ζῶον, οἷον ἑστια τέ τίς ἐστι καὶ πηγὴ κ. τ. λ.—De usu partium, Lib. vi, ch. 7.

[††] ἡ χρεία τῆς ἀναπνοῆς ἡ μεγίστη μὲν καὶ κυριωτάτη φυλακὴ τῆς ἐμφύτου θερμασίας ἐστιν—De diff. Resp., Lib. i, ch. 4.

[‡‡] ὥσπερ καὶ ὅταν μικρὸν εἰσπνέωσι καὶ βραδέως, οἷς ἱκανῶς ἔψυκται τὸ ἔμφυτον θερμόν.—De diff. Resp. Lib. i, ch. 20.

The average of his experiments on fourteen animals, including worms, lizards, and insects, as well as birds and mammals, was

Oxygen combined with carbon	80.7
Oxygen combined with hydrogen	19.3

a result identical with that found by Lavoisier. The highest proportion of oxygen combined with hydrogen, occurred in the case of chickens fed on meat, and amounted to 32 per cent.; and the lowest proportion occurred in the case of rabbits fed on bread and oats, and amounted to 1 per cent. only.

Still more recent experiments, made with improved apparatus and methods by Pettenkofer and Voit, in Munich, show, like those of Regnault, that the proportion of the oxygen employed in forming carbonic acid, to the whole oxygen absorbed, varies with the food, ranging in the case of a large dog from 52.4 to 148.2, according as the animal was kept altogether without food, or fed upon a mixed diet of meat and sugar. These investigations have also shown that, under ordinary conditions, it is probable that a dog consumes nearly all the oxygen absorbed in the formation of carbonic acid.

Before leaving the subject of animal heat, it is worth while to estimate its amount in a manner that will bring it into comparison with ordinary mechanical work.

In Lavoisier's experiment with the Guinea-pig, 402.27 *grammes* of ice were melted in ten hours; from this fact, we find, assuming the latent heat of ice at 142 deg. Fahr., and 772 as Joule's co-efficient for converting British heat-units into foot-pounds,

Mechanical work equivalent to the daily animal heat of Lavoisier's Guinea-pig=

$$\frac{402.27 \times 24 \times 142 \times 15.432 \times 772}{7000 \times 10} = 233310 \text{ foot-pounds.}$$

As the average weight of a Guinea-pig is 4 lbs., the preceding amount of work, representing animal heat, would be sufficient to raise the weight of the animal through a vertical height of

$$\frac{233310}{4 \times 5280} = 11.05 \text{ miles.}$$

Ranke has shown, by experiments made upon himself, under various conditions of food and fasting, by means of Pettenkofer and Voit's apparatus, that his daily excretion of carbonic acid varied from 660 *grammes* to 860 *grammes*. His weight was 67 *kilogrammes*; from which fact, and the assumption that an English mile is 1600 meters, we obtain, employing the contents already given, the height through which the combustion of this quantity of carbon would raise the weight of 67 *kilogrammes* in 24 hours—

$$= \frac{760 \times 6 \times 8.080 \times 423}{22 \times 67 \times 1600} = 6.609 \text{ miles.}$$

The extreme values of the carbonic acid excreted; viz., 660 *grammes* and 860 *grammes*, would correspond to the heights of 5.74 miles, and 7.48 miles respectively.

Pettenkofer and Voit succeeded in producing a range of carbonic acid excreted by a large dog, weighing 33.3 *kilogrammes*, from 289.4 *grammes* to 840.4 *grammes*; the minimum corresponding to the tenth day of fasting from solid food, and the maximum corresponding to a diet of 1800 *grammes* of meat, 350 *grammes* of fat, and 1410 *grammes* of water.

It may be easily shown, by a calculation similar to the foregoing, that these excretions of carbonic acid correspond to the mechanical works of lifting the weight of the dog through vertical heights of 5.03 miles, and 14.62 miles respectively.

Combining together the preceding results, and expressing them all in the natural units of the weights of the animals lifted through a height, we find—

Work due to Animal Heat.

1.	Guinea-pig	11.05 miles.
2.	Man	5.74 ,,
3.	Man	7.48 ,,
4.	Dog	5.03 ,,
5.	Dog	14.62 ,,
	Mean	8.784 ,,

Source of Muscular Work.

As soon as it was satisfactorily established by Lavoisier and his successors that the natural combustion of carbon and hydrogen in the blood was sufficient, and rather more than sufficient, to account for the animal heat, it became a matter of great interest to physiologists to ascertain, if possible, how much of the work developed in the blood by chemical changes is employed in producing animal heat, how much in mechanical work, external and internal, and how much in vital or mental operations.

At the outset of this inquiry, it received a misdirection from the conjecture thrown out by Liebig, that the excretion of nitrogen (in the form of urea) gave necessarily the measure of the wear and tear of the muscular tissues themselves, which are composed of proteinic or nitrogenous compounds. This conjecture led to Liebig's celebrated classification of food into *Heat-producing* and *Flesh-forming* foods, which has been unhesitatingly received until lately, in this country, by physiologists and physicians.

Before investigating the truth or falsehood of Liebig's theory, it is worth while to state the most recent results obtained as to the muscular work per day of which man is capable.

From numerous observations, of which some were made by myself on the daily labour of hodmen, paviours, navvies, and pedlars, I have obtained the following mean:—

Daily labour of Man = 353.75 ft. tons = 109549 *kilomètres*.

This quantity of work is the exact equivalent of the work done by a man of 150 lbs. weight in climbing through one mile of vertical height; and is, as I have already shown, less than *one-eighth* part of the work expended in producing and maintaining animal heat.

Even if we add to the external muscular work that of circulation and respiration, which may be estimated at 133-foot tons, the whole work done by the muscles, voluntary and involuntary, of a hard-worked labourer, will amount to less than *one-sixth* of the work expended in maintaining the temperature of his body at 100° F.

I was led to believe, from my investigations as to the quantity of urea excreted in various diseases, that a certain minimum quantity equivalent to 2 grs. per pound avoirdupois of body weight, was excreted quite independently of muscular exertion, and I proved that death was preceded in many chronic diseases by a fall in the urea excreted to 2 grs. per pound. These investigations were made chiefly on patients dying of advanced kidney-disease, in which the excretion of albumen had nearly or altogether ceased, and on patients dying of phthisis.

Pettenkofer and Voit found that the excretion of urea in a dog reduced to 29 *kilogrammes* by 10 days' fast was reduced to 8.6 *grammes*.

And, since 29 *kilogrammes* = 63.8 lbs.
8.6 *grammes* = 132.7 grs.
Excretion of urea = 2.08 grs. per lb. of body weight.

Ranke obtained a precisely similar result from observations made upon himself, after long fasting, continued for several days.

If these views be well founded, it is plain that part only of the urea excreted can be regarded as due to muscular exertion, for 2 grs. per lb. (or 300 grs. for a man weighing 150 lbs.) must be set aside as a constant due to vital work, independent of muscular work altogether. Hence it would follow, supposing the muscular exertion to be measured by the increased excretion of urea produced by it, that the urea will not increase as fast as the muscular exertion, but it ought to increase regularly, although at a slower rate. With a view to settle this important question, I devised the following observations upon myself in the month of July, 1866, which prove conclusively that an increase of muscular exertion, amounting to fourfold, is not accompanied by any corresponding increase in the excretion of nitrogen, in the form of urea.

I had previously ascertained by repeated experiments, extending from 1860 to 1865, that my excretion of urea (under ordinary conditions as to exercise, which did not exceed 5 miles per day), ranged from 465·09 grs., to 537.47 grs. per day; the mean being 501.28 grs.

This quantity of urea I regarded as my natural physiological average, and it was so well established, that I thought I should obtain an important result by comparing it with the average found from several days of unusual muscular exertion. I accordingly walked for five consecutive days in the hilly districts of Wicklow, noting carefully the horizontal distance traversed each day, and the vertical height traversed up and down. The vertical heights were reduced to horizontal distances, on the assumptions (which are well founded) that 20 is the proper coefficient for converting one into the other, and on the assumption that the work of descent is half the work of ascent.

During the five days of observation the work done, expressed in horizontal miles of walking, was as follows:—

		Miles.
First Day.—Miles walked		11.4
Height ascended	1800 ft. =	10.2
		21.6
Second Day.—Miles walked		12.0
Height ascended	2400 ft. =	13.7
		25.7

Third Day.—Miles walked		11.6
Height ascended	1400 ft. =	8.0
		19.6
Fourth Day.—Miles walked		9.3
Height ascended	1400 ft. =	8.0
		17.3
Fifth Day.—Miles walked		10.4
Height ascended	1600 ft. =	9.1
		19.5

From the preceding statement it follows that the average work done each day was 20.74 miles of horizontal walking—the result of which upon the urea excreted was to be compared with the result already mentioned, as a physiological constant determined under circumstances in which the daily muscular work never exceeded 5 miles of horizontal walking.

In order to determine the urea, I collected each day all the urine passed, and kept one-fifth part of it; and at the close of the fifth day examined the mixture formed from the five days' urine.

It was found to contain 501.16 grs. of urea per day—a result identical with the physiological quantity previously found by me under totally different conditions, viz., 501.28 grs.

I was much surprised at this result, for I had previously believed in the theory laid down by Liebig, which attributed the excretion of urea to the disintegration of muscular tissue.

It might be objected to the preceding reasoning that there can be no doubt as to the capability of the combustion of proteinic compounds represented by 501.28 grs. of urea excreted to produce mechanical force sufficient to explain the muscular exertion of walking 20 or 21 miles per day; as may be shown in the following manner:—

1. The urea excreted bears to the proteine consumed the proportion or 24 to 79; as appears from their chemical compositions—viz.,

Urea	$C^2 H^4 N^2 O^2$	60
Proteine	$C^{36} H^{27} N^4 O^{12}$	395

2. In 100 parts of proteine there are 53-7 parts of carbon, and 7 parts of hydrogen; the total heat due to the combustion of 1 grm. of proteine is, therefore,

	Heat-units.
0.537 *gramme* of Carbon	4.3389
0.070 *gramme* of hydrogen	2.4123
	6.7512

This number, 6.7512, represents the maximum quantity of heat-units* that could be produced by the combustion of 1 gramme of proteine; but the term depending on hydrogen in it should be reduced to five-ninths of its amount, in consequence of the hydrogen already combined with oxygen in the proteine. Hence we find—

Combustion of 1 *gramme of Proteine.*

Carbon	4.3389 heat-units.
Hydrogen	1.3402 ,,
	5.6791

3. In 100 parts of urea there are 20 parts of carbon, and 6⅔ parts of hydrogen; the total heat, therefore, due to the combustion of 1 *gramme* of urea is

0.20 *gramme* Carbon	1.6160
0.067 *gramme* Hydrogen	2.3089
	3.9249

The term depending on hydrogen, in this result, should be reduced to one-half, in consequence of the hydrogen already combined with oxygen in the urea. Hence we find—

Combustion of 1 *gramme of Urea.*

Carbon	1.6160
Hydrogen	1.1544
	2.7704

4. From the three preceding statements, it is easy to see that, for every *gramme* of proteine consumed, 0.8416 heat-units are contained in the urea excreted; so that

The digestion of 1 *gramme of proteine gives out* 4.8375 *heat-units.*

It is easy to see that 501.23 grs. of urea excreted correspond to 1650 grs. of proteine in the food, or to 106.92 *grammes;* and the total work due to the digestion of this quantity of food may be found by multiplying it by the "*Digestion-coefficient*" already found, and by 423, which is Joule's coefficient for converting heat-units into kilogrammeters. Hence we have

Work due to production of 501.28 *grs. of urea* = 106.92 × 4.8375 × 423 = 218786 kilogrammeters = 704 foot-tons.

This amount of theoretical work produced by nitrogenous food is more than double the work actually done during the walking excursion.

The average work was 20.74 miles horizontal per day, which may be considered as the exact equivalent of lifting my weight (knapsack and clothes included = 150 lbs.) through one mile of vertical height. Hence the work actually done by me was

$$\frac{150 \times 5280}{2240} = 354 \text{ foot-tons.}$$

I have elsewhere shown that the work done by the heart per day amounts to 122 foot-tons, which should be added to the external work, as well as the unknown work due to the muscles used in respiration, probably amounting to one-sixth of the heart's work, or 21 foot-tons. Adding these quantities, we find—

External Work	354 foot-tons.
Circulation and Respiration	133 ,,
	487 foot-tons.

This quantity represents 69 per cent. of the applied work, which was shown to be 704 foot-tons,

The amount of muscular work accounted for is 354 foot-tons, which is almost exactly half the whole theoretical work supplied by the food that goes to form the urea—viz., 704 foot-tons; but it has been already shown that 2 grs. of urea per pound of body-weight is required to maintain the vital work, including circulation and respiration. This would give from 240 grs. to 260 grs. of urea out of the 501 grs. available for vital work; so that one-half of the available work may be considered as expended on vital work, and the other half as expended on external muscular work. This supposition, however, requires us to believe that the muscles act without loss by friction. This is not admissible; for I have elsewhere endeavoured to show that there is a loss in the force applied by the muscles of various animals, in consequence of the friction of their tendons amounting—

In Man to	35 per cent.
In the Mastiff to	41 ,,
In the Kangaroo to	61 ,,

Hence it may be regarded as certain, that the available force represented by 501 grs. of urea is not sufficient to account fully both for vital work and for the external mechanical work expended by me during the experiments just described.

(*To be concluded.*)

Parasitic Affections of the Urinary and Genital Organs.—Dr. Salisbury, whose views on the cryptogamic origin of measles, intermittent fever, and venereal diseases, are well known to American and British practitioners, has published, in the April number of the *American Journal of Medical Science*, an interesting paper on vegetable and animal parasites found in certain diseased conditions of the urinary and genital organs. When the general system is out of order, and the secretions of the pelvic mucous membranes abnormal, the parent epithelial cells of the uterus, vagina, kidney, bladder, and urethra, afford a fertile soil for the development of low cryptogamic forms, which develope and multiply with great rapidity. The fungoid and algoid spores thus developed produce irritation, set up excessive cell-activity and secretion, and finally result in the formation of pathological products. Fourteen forms of cryptogamic vegetation have been observed by Dr. Salisbury in abnormal conditions of the urinary and genital organs. Among these are included the Botrytis infectans, the fungus which produces the so-called potato-rot; and the Spharrotheca pyra, the active agent in blight of apple and pear trees. The first mentioned parasite sets up great irritation along the urinary passages, and is frequently associated with severe hæmaturia. Animal organisms of inferior types have also been found multiplying rapidly in vaginal discharges and in unhealthy urine. The following are described by Dr. Salisbury:—1. The Trichina cystica, a small parasite found in the bladder; 2. A species of vibrio, resembling that found in vinegar, which is present in urine; 3. The Trichomonas vaginæ. 4. The Ciliaris bicaudalis, a single oval and ciliated cell, furnished with two hair-like caudal prolongations. 5. The Trichomonas irregularis, an oval non-ciliated cell, furnished with a beak and two thin appendages. The last four parasites were found in abnormal urine and vaginal discharges.

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* Heat-unit = 1 *kilogramme* of water raised to 1° centigrade.

A CASE OF AORTIC REGURGITATION FROM INJURY TO THE VALVES DURING MUSCULAR EFFORT.*

By HENRY SIMPSON, M.D., Physician to the Manchester Royal Infirmary.

J. B., a strongly built man of 40, had good health up to the time of this occurrence. About four years and a-half ago he was helping to carry a piano down stairs, when he suddenly felt something give way in his chest, and immediately heard a noise proceeding from it, which he compared to that "made by a young frog," and imitated by a sort of croaking. It was audible to those about him as well as to himself, for about nine months, becoming gradually weaker, and at length ceasing. He felt no pain or faintness at the time, and went on with his work as if nothing had happened. For about two years he felt no inconvenience, but then began to be troubled with tightness in the chest, occasional palpitation, flatulence and giddiness. He, however, followed his work as door-keeper at a railway-station until fifteen weeks before his admission to the Manchester Infirmary. He was then suffering from dropsy, which continued ever since.

On February 5th, 1868, the pulse was observed to be of a typically regurgitant character, and to be remarkably visible in the radial and ulnar arteries, and the dorsal arteries of the feet when the œdematous swelling was pressed aside. The chest resonance was good, and the respiratory sounds normal. The præcordial region to the left of the sternum was rather prominent; the apex-beat was felt over a somewhat extensive area, its limit to the left being an inch and a-half outside the nipple; and the transverse dulness measured five inches and a-half. The first sound was everywhere extremely feeble and unaccompanied by the slightest murmur; but the second sound was almost entirely replaced by a prolonged musical murmur of high pitch, audible over the whole front of the chest, but of greatest intensity just above the level of the fourth cartilage. It was audible from the occiput, on the left of the spine, to the lumbar region, and on the right, to the middle of the interscapular region. The urine was scanty, loaded with lithates, but free from albumen. The tongue was clean and moist. He slept little, and on the least exertion suffered much from dyspnœa. His face was pallid, but there was no lividity. In a day or two some dulness began to appear at both bases with fine subcrepitant *râles*, and the expectoration became hæmorrhagic. Effusion took place into both pleuræ; the urine became slightly albuminous; and his condition more unfavourable. On the 17th, the notes state that he had had a very bad night. The expectoration contained a good deal of blood. Pulse 108; respirations 28. The urine was not sufficient to obtain the specific gravity; it was slightly albuminous. During the day he felt better and conversed cheerfully with the other patients. About six P.M. he suddenly raised himself up in bed, saying he was choking, and fell back dead.

At the inspection, a good deal of fluid was found in the peritoneal cavity, in both pleuræ; and about two ounces in the pericardium. There were no pleuritic adhesions. Both lungs were œdematous, and slightly emphysematous at the interior edges. Several nodules of pulmonary apoplexy were found, all recent, but one of somewhat older date than the rest. There was no tubercle. The heart (which was exhibited) weighed 24 ounces. The right auricle was enlarged and filled with partially decolorised clot, which passed into the right ventricle. This was dilated and its walls flaccid. The left ventricle was dilated and its walls greatly thickened. The aorta was slightly dilated, its coats were thickened, and contained several calcareous plates just above the insertion of the valves. The segments of the valves were rather thick and leathery, and somewhat shrunken. Two of the points of attachment were normal, whilst the third was at a lower level. Before opening the vessel it appeared nearly a quarter of an inch below the others, and the attachment of the adjacent segments was separated by more than the eighth of an inch. This stripping down of the attachment of the valves allowed free bending down towards the ventricle of the two segments, and produced marked incompetency, as was tested by a stream of water from above. The mitral valve was perfectly healthy, and did not allow of the slightest regurgitation. This point was tested most carefully. The abdominal organs were congested, but otherwise healthy, with the exception of one mesenteric gland, which was converted into a bone-like mass nearly as large as a walnut.

The points of interest in this case are:—the distinctness of the history, given by an intelligent man; the absence of pain or faintness at the time of the accident; the slight inconvenience felt for a considerable period; the hypertrophy of the left ventricle; and the production of secondary effects on the pulmonary and systemic circulation without the existence of any mitral insufficiency. Dr. Walshe states that he has scarcely ever seen pulmonary apoplexy except as the result of mitral disease, but that dilated hypertrophy may produce it. In this case there was one mass of the size of a large orange, and several smaller ones. I am of opinion that the great incompetency of the aortic valves allowing of the falling back of a large stream of blood, which interfered with the onward flow from the auricle into the ventricle, must have had a greater share in its production than the hypertrophy.

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* Read before the Manchester Medical Society.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ROYAL SOUTH HANTS INFIRMARY.

POISONING BY THE OIL OF BITTER ALMONDS.

(Reported by Mr. W. B. SHORTS, House-Surgeon to the Infirmary.)

THE following case illustrates the efficacy of the rousing treatment, such as is recommended in poisoning by opium, in a case of poisoning by the oil of bitter almonds. G. G., aged 3, was brought to the Infirmary, June 15th, suffering from the effects of a poisonous dose of the essential oil of bitter almonds, which had been incautiously left within reach of the child. The following were the symptoms: Foaming at the mouth, difficulty of breathing, pupils dilated and fixed, pulse scarcely perceptible, surface of body very cold, and the general condition inanimate. An emetic was administered at once, and the child placed under a powerful cold douche bath, the water being especially dashed over the head and spine. In a few moments she commenced kicking and screaming, but relapsed into the former condition as soon as the douche was suspended. The treatment was accordingly continued for more than half an hour. The child was then removed from the bath, and gently galvanised by the electro-magnetic current. She still remained in a very drowsy condition, but was kept perfectly awake by slapping and shaking her when necessary; and at the end of three hours appeared quite recovered and rather lively. She was brought to the Infirmary again the next day, and was apparently little the worse for the poison, or the treatment she had undergone. According to the father's account, the child had swallowed nearly a tablespoonful of the essential oil.

BEDFORD GENERAL INFIRMARY.

SUPPOSED HYPERTROPHY OF BRAIN.

By W. G. JOHNSON, Esq.

LEWIS GOBLY, aged 29, a drayman, and consequently accustomed to take a liberal allowance of beer, not of a strong habit of body, and subject to headache, was seized with an aggravated attack, whilst employed in the sun making hay, in May 1866. He was brought to the Infirmary in the following August. His suffering then was most intense. He had constant pain in the head, at times so severe that he could hardly control himself. He would lie doubled up in bed, his head supported by his hands, and moaning constantly. The severe pain seemed to be somewhat intermittent. He suffered much from sickness. His pupils were dilated; pulse feeble; countenance pale; bowels constipated; urine free from albumen. When he walked, which was only when the pain was less severe, it was but a few steps, and with a feeble tottering gait. The remedies used were mercury, which was given until it produced slight soreness of gum; and quinine, which was increased in quantity. Repeated blisters were applied to the neck, and the hair was cut close. He left the Infirmary at the end of three months, without deriving any permanent benefit.

He appeared again in April 1867, much better in health, but wishing to gain strength by better diet. He could now walk very fairly, and stated that he had felt sudden and great relief by something giving way in his head. On examining his head, I found that the coronal suture had separated from the great ala of the sphenoid to the junction of the two parietal bones; the other half of the suture was closed. The sulcus caused by the separation of the bones was widest at the outer end, being there sufficiently wide to allow a finger to be placed easily between the two bones. At the centre of the frontal bone, the groove of separation was very small, possibly not more than one-eighth of an inch in width. He remained in the hospital three months, and improved considerably in health. The bones on the opposite side were separating, or, I should say, had separated an inch further than on admission.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 15TH, 1868.

THE ASSOCIATION AT OXFORD.

THE echoes of the Oxford meeting which has just ended will probably be prolonged far into the distance. It was one of the largest assemblages of medical men which has ever been gathered together in these kingdoms; it included everything that is most representative, most illustrious, and most advancing in our profession; and the heads of the departments of business, as well as those who occupied the attention of the general meeting, were men who hold the highest positions with the applause of all their brethren. Such a meeting cannot be held in vain. When five or six hundred men of cultivated intelligence, of scientific pursuit, of social power and activity, meet for a common and public end in general congress, the result must be to consolidate the bases, to widen the sphere, and diversify the conscious ends of their work during the years that follow. Perhaps the most important results may be expected from the unconscious influence of such a congress in widening the appreciation by each man of the value of the objects of his neighbour's work. The man of science comes there with a desire to impress upon all the primary necessity of unselfish, deep-digging, and unrepining research. He is inclined to think therapeutical inquirers premature, and clinical inquirers purblind. Above all, he contemns your "practical man", who has a remedy for every disease, and a belief for every contingency. The man of culture is chiefly distressed at the sordid discussions which are arising as to professional remuneration and sick-clubs, tariffs of fees, and gratuitous services at hospitals. The politician is out of patience with the attention which the Association gives to science—electro-therapeutics, dietaries, the relations of force to food, etc. What are these to an Association which ought to devote its whole energies to the direct representation of the profession in the Council? The state physician, the experimental inquirer, the politician, have all had their opportunities, and each has learnt from the other. The wise and noble words of Acland and of Stokes have left on the minds of all that deep impression which they were well calculated to make: amidst the struggle of opinions and the turmoil of interests, we have been profitably reminded of our highest mission, of our proudest claims, of our best aspirations. We trust always to hear the voices of the leaders of the Association raised in that cause. This must be the cord which binds us in union—a common effort for the common good. This dominant sentiment is wholly accordant with the most energetic efforts to promote a common understanding on all the questions of our mutual and individual interests—with the most earnest endeavours to promote education, to improve sanitary legislation, and to attain a generous agreement amongst ourselves that the poverty of one man shall not be an excuse for his doing that to another, to which, otherwise, his will would not consent. It accords entirely with the encouragement given at this meeting to scientific inquiries such as those of the Edinburgh Committee on the Action of Mercury; to State Medicine inquiries, such as those promoted by the Joint Committee on Public Medicine; to Poor-law Medical Reform, such as that contemplated by the newly appointed Committee to cooperate with the existing Associations of Medical Officers in Ireland and in England; with the attempt to regulate medico-social legislation which is diligently made by our Parliamentary Bills Committee; and with the endless variety of pure and applied scientific labour, of which the results were expressed in the addresses and in the papers read in the sections.

"And to see the dear old things almost fall into each other's arms," said one lady, who had been witnessing the first greetings, in the courtyard, of old friends from far distant places. Yes, that is certainly one of the sights, one of the meanings, of this meeting—the making and the renewal of friendships, the grasping of hands, and the mental estimation of the personal qualities of men whom one had hitherto known only on paper. And to this meeting, as of use, men came from afar. There was a visitor from Cape Clear, and one from Land's End, and from all the great cities and provinces of the three kingdoms. At this meeting, also, there was a larger sprinkling than usual of foreign visitors; and to some of them—Duchenne de Boulogne, Marey, Gross of Philadelphia, and others—special honours were paid. Their presence was very welcome; we hope to have an increasing number of foreign guests at our annual reunions. They brought to us not only the pleasant international sentiment which attached to their mere presence, but scientific contributions of value. We have every reason to hope that they carried away with them agreeable impressions. If not, we shall submit very cheerfully to their criticisms. Something they may have to say, perhaps, of overflowing hospitalities, and of a pervading spirit of holiday-making, little consonant with sober work-day science. But they surely felt that they were heartily welcomed; and they did much to testify their own good-will. Professor Gross expressed the wish of the American Medical Association to receive a return deputation, in recognition of those which have now been welcomed at our meetings. The principle was accepted with acclamation. Nor need we doubt that the delegates would receive a right hearty welcome, and would be amply repaid for the journey. But it may not prove easy to find, as delegates, members adequate to the task of representing the Association, and who would have the wish and the facilities for crossing the Atlantic at the proper time. But the Association is large, and there is time for volunteers to think over the matter.

In reviewing the meeting, it will be acknowledged that it has been in every way a great event; that it will tend to strengthen the highest efforts of the Association, to enhance its reputation, to widen its borders, and to increase its powers of usefulness in England and in Ireland. The presence of so large a number of our eminent Irish associates was a source of peculiar pleasure. Looking back upon all its incidents, it is impossible not to feel grateful to those whose exertions, ability, and generosity were so admirably and successfully applied in organising this meeting. We have already enumerated them; but we cannot omit repeating, as chief among those to whom the Association will owe a permanent debt of gratitude, Dr. Acland, the President of the year, and Mr. Edward Chapman, his indefatigable and hospitable *aide-de-camp* in the arrangements for the meeting.

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THE CHOLERA EPIDEMIC OF 1866.

With the prominent circumstances connected with the Cholera Epidemic which occurred in London two years ago, the weekly returns of the Registrar-General made us all familiar; and with the history of the disease as it appeared in a few specific localities the Ninth Report of the Medical Officer of the Privy Council has already dealt. But a complete account of the extent and fatality of cholera throughout the whole country in 1866 has only now been supplied in the form of an elaborate Report prepared by Dr. Farr, from the official records of the Registrar-General.

In this Report, Dr. Farr states that his aim has been to embody the chief facts and results of previous observations, in conjunction with those collected during the late epidemic. Thus we find, in the valuable series of tables appended to the Report, the statistics of cholera and diarrhœa so arranged as to show the comparative fatality of those diseases in different places, and under various conditions, in each of the three epidemics of 1849, 1854, and 1866. Copious notes are also given of such details of interest in regard to the prevalence of cholera in the several registration-districts of the country as the death-registers supply; to which much additional information has been contributed by medical officers of health and other medical men in reference to places which were visited with particular severity. The London weekly returns for the epidemic period have been reprinted, as the first impressions are unattainable; and by their chronological arrangement, presenting things as they appeared at the time, they form a kind of cholera journal which may be useful for reference in any similar visitation hereafter.

Amongst other matters, there is an account drawn up in narrative form by Dr. Farr of the proceedings adopted at the General Register Office during those months of July and August when the epidemic was raging at the East-end of London, to keep the public fully informed of what was going on. It is not a little curious to read therein how, in a letter to Dr. Frankland under date of August 4th, Dr. Farr expresses a surmise in reference to the pollution of the East London Water Company's supply, which months afterwards was verified to the letter: "My theory is, that in some strait they (the East London Company) supplied for some day or days their water from the uncovered reservoirs at Old Ford, contaminated in some way or other." No clearer case of circumstantial evidence is to be found than Dr. Farr adduced as the ground of his hypothesis, that the diffusion and localisation of cholera in East London was due to the especial contamination of the water-supply. However much may be said against the hypothesis itself—and we know, of course, that it has been the subject of very strong objection—no one can deny that the concurrent testimony of fact does tell most powerfully in its favour. We may observe, in passing, that Dr. Farr grapples courageously with the main objections raised against his water theory, and in some, if not in all, cases he meets those objections in a way calculated to move the assent of his readers.

The chief value of the Report undoubtedly lies in the statistical analysis of the different facts relating to cholera, in which particular line of writing, Dr. Farr has few, if any, equals, and certainly no superior. And, so far as mathematical reasoning can be brought into play, cholera theorists will find in him a doughty opponent or an invaluable ally, as the case may be.

A considerable amount of space is given in the Report to "Theories of Cholera," in which the zymotic, mathematical, atmospheric, contact water, and spontaneous generation theories are discussed; the zymotic principle of cholera is strongly enforced, and its most frequent diffusion hrough water as a medicine is a cardinal point of belief with Dr. Farr.

A chapter on the Scientific Elements of Cholera contains much elaborate statistical reasoning on the effect of elevation, distance, density, wealth or poverty, occupation, sex, and age, on the mortality by cholera; and the relation of meteorological phenomena to the disease is isplayed in diagrams and tables that will, no doubt, be of great value o the student.

With this Report, the history of the cholera epidemic of 1866 may be deemed, for all practical purposes, completed; and the lesson of all others which Dr. Farr most strongly insists should be learnt by the public therefrom is, "the importance of a pure water-supply."

Dr. A. Dickson, Trinity College, Dublin, one of the most accomplished botanists of the day, has been appointed Professor of Botany in the University of Glasgow.

The Library of the Royal Medical and Chirurgical Society will be closed from Monday, August 17th, to Saturday, September 12th, both days inclusive.

SUFFOLK NURSING ASSOCIATION.

We understand that an Association for the training of Nurses has been formed in Suffolk. The Governors of the Bury Hospital have placed their wards under certain regulations at the disposal of the Association.

GYMNASTICS IN SCHOOLS.

There is even in this country a growing tendency just now to make of gymnastics in schools a fatiguing, tedious, and monotonous study, instead of their being an agreeable, diversified, and most invigorating recreation. We invite attention to the recent memoir of Dr. Gallard on this subject. The following are his conclusions. He proposes to proscribe for young people the exercises of the bar and the trapeze, and the monotonous use of "clubs" and dumb-bells; and to replace the factitious exercising in the gymnastic school by free and natural exertion in such games as football, cricket, tennis, etc., in which the masters can take part with their pupils. Long walks may replace other fatiguing exercises; and for boys the rifle drill may be introduced after the age of fourteen. Swimming and horse-riding are invaluable gymnastics; and deprivation of exercise should be banished from the list of punishments.

POLICE DIAGNOSIS OF DRUNKENNESS.

At an inquest held on Wednesday on P. E. Shelford, who died at St. Mary's Hospital, where he was taken suffering from fracture of the skull and compression of the brain, it was proved that he had been lying in an area from shortly after midnight until eight o'clock next morning. Sarah Butcher, who was in charge of the house, deposed that the deceased was brought down into the area by two men between twelve and one on Sunday morning. The deceased continually called out "Oh, my head!" Five policemen came down, but they all said he was only drunk, and told the witness to pour cold water over him, declining to remove the deceased when asked. The jury censured the police for having suffered the deceased to lie for so many hours in the area. The coroner said it was a common occurrence for the police to mistake cases of illness or accident for drunkenness, and said that in all cases open to doubt, a doctor should at once be called. We published some time since, when drawing attention to similar facts, a note of the careful instructions given to the police, with a view to prevent such serious neglect. It might not be amiss to issue a special circular or general order calling the attention of the constables to their duty and responsibility in this matter.

PAID NURSES.

At a recent meeting of the Hull Board of Guardians, we rejoice to see that it was resolved, in spite of ill-judged opposition, to adopt a suggestion of Mr. Farnall, the inspector of the district, backed by the visiting committee, to advertise for a trained nurse. The salary proposed, £15 a-year, will not be sufficient, we fear, to secure a good choice of qualified candidates; but it is a great improvement upon the "one poor old nurse—to nurse the female sick—a pauper who was always requiring stimulants to keep her to her work." The master said he had not one pauper as nurse he could recommend. There are an average of 100 sick in the infirmary. It is strange in this age to have to record strong opposition to such an obvious and necessary act of humanity as that implied in Mr. Farnall's suggestion.

DR. OSCAR CLAYTON.

DR. OSCAR CLAYTON, of Cavendish Square, is gazetted "extra surgeon in ordinary to His Royal Highness the Prince of Wales."

THE BRITISH ASSOCIATION MEETING.

THE thirty-eighth annual meeting will commence on Wednesday, Aug. 19th, at Norwich, at 8 P.M. precisely, when Joseph Dalton Hooker, M.D., F.R.S., will assume the presidency, in succession to the Duke of Buccleuch, and deliver an address. The business of the meeting will be carried on in sections until the following Tuesday, and the concluding general meeting will be held on Wednesday, Aug. 26th. Full information may be obtained of the local secretaries.

HYGIENE AT SLIGO.

DR. TUCKER, the Medical Officer of Health of Sligo, gives the authorities good advice, eloquently expressed in his public health report, under date July 10th. He warns them against supposing that their present freedom from severe epidemic can save them in the future more than in the past from high death-rate and imminent danger. The pump water is polluted; the river a standing stigma and disgrace to the town. The past ravages of cholera at Sligo, the recent histories of Terling and of Guildford, should teach the people of Sligo to be wise in time, and not to be lulled to a fatal security by the absence of any existing epidemic. Dr. Tucker should induce the press of the locality to favour the inhabitants with some extracts from Mr. Simon's last report to the Privy Council, which contains instructive instances and comments much to the point of his argument.

DIRECTIONS FOR BATHING.

THE Royal Humane Society, acting, we believe, upon the advice of Drs. Christian and Sieveking, have issued a set of important directions to bathers, which are just now very seasonable, and have moreover a permanent value. Avoid bathing within two hours after a meal. Avoid bathing when exhausted by fatigue or from any other cause. Avoid bathing when the body is cooling after perspiration: but—bathe when the body is warm, provided no time is lost in getting into the water. Avoid chilling the body by sitting or standing naked on the banks or in boats after having been in the water. Avoid remaining too long in the water—leave the water immediately there is the slightest feeling of chilliness. Avoid bathing altogether in the open air if, after having been a short time in the water, there is a sense of chilliness with numbness of the hands and feet. The vigorous and strong may bathe early in the morning on an empty stomach. The young, and those that are weak, had better bathe three hours after a meal—the best time for such is from two to three hours after breakfast. Those who are subject to attacks of giddiness and faintness, and those who suffer from palpitation and other sense of discomfort at the heart, should not bathe without first consulting their medical adviser.

FEVER PATIENTS AT NEWCASTLE.

ONE excellent effect of the inquiries into the state of workhouse infirmaries in London, to which we may point with pride and satisfaction, is the special recognition by the legislature, under the consequent Metropolitan Poor Act, of the duty of the state to provide hospital accommodation, and to remunerate the medical service of certain maladies amongst the poor, which are matters of state concern. The medical officers hereafter to be appointed to the Metropolitan Fever Hospitals and Asylums now being erected, will have their services remunerated. The Sanitary Act of 1866 recognised the same principle, and confers power upon the corporate or "sewer" authority to build or provide hospitals for the reception of the sick inhabitants within its district; and to such hospitals authority is given to order the removal of any person suffering from any dangerous contagious or infectious disease, being without proper lodging or accommodation, or lodged in a room occupied by more than one family, or being on board any ship or vessel. The cases sent to the hitherto existing Fever Hospital at Newcastle are, within three per cent., all parochial cases. The hospital, moreover, is insufficient for its purposes. It is obviously unjust that the medical officers should be called upon to undertake gratuitous service to such an institution, or that on casual charity should be conferred the recognised functions of the corporation and the guardians. The physicians of the Newcastle Fever Hospital, Drs. Embleton, W. Murray, G. H. Philipson, and J. W. Eastwood, have, under these circumstances, intimated, in a report which the Committee of the hospital has adopted and presented to the Corporation, that, in their opinion, "the present medical arrangements of the institution have been rendered obsolete, and the eleemosynary attendance of honorary physicians supererogatory." The Committee have offered to the Corporation buildings and funds of the value of £4500, on condition that they be maintained for the specified purpose, and that provision be made for the admission of the two or three per cent. of non-pauper cases—sailors, domestic servants, etc.—at the same rate of pay as at present. The urgent necessity for the corporation undertaking this public duty, according to the provisions of the Act cited, and in conformity with the precedents which we have quoted, is shown by the fact that, during the thirty-eight years to 1863 inclusive, the yearly average of patients was under 73, while since, and during the past years, it was 324.5; showing an enormous increase, and indicating the urgent necessity for the employment of means more stringent and efficacious than have hitherto been put in operation. The case is one, then, which leaves on the corporate authorities the perfectly clear duty of adopting the suggestions of the Hospital Committee. The medical officers have shown an excellent example, both in the thing which they have done and the logical and temperate report which they presented on the subject.

MR. SIMON'S LETTER TO MANCHESTER.

MR. LEIGH, the officer of health of Manchester, was recently instructed to proceed to London, with the view of pressing upon Mr. Simon the expediency of the promulgation of an order by the Privy Council, authorising the adoption of special measures for dealing with the almost epidemic form which diarrhœa seems to have assumed in some parts of that city. Mr. Simon's reply, which was read at the last meeting of the Corporation, was to the effect that, so far, no case had been made out for so exceptional a proceeding, but that "my Lords" would at once reconsider the subject if the Council, "on full consideration of the circumstances, should see fit to move their Lordships to put in force the Diseases Prevention Act for Manchester." He then proceeds to point out to the Corporation the necessity which exists in Manchester for a vigorous administration of the ordinary sanitary acts, and observes that no "systematic disinfection" of the great sources of the prevailing complaint has been commenced. "My Lords," he adds, "trust that the Town Council will at once give instructions to have proceedings of this sort carried into effect on a very large scale, and in the most thorough and systematic manner. And their Lordships are prepared to expect more advantage from this and other measures which are within the competence of the Town Council than from any measures of medical relief which could be adopted by the Boards of Guardians if the Diseases Prevention Act were put in force." To this letter a reply was sent expressing regret at the decision of "my Lords," and defending the Council from the charge of having neglected a most important public duty. Mr. Simon's pertinent letter was anything but palatable to the Council, but it very clearly indicates the most pregnant source of danger to the health of Manchester, and will no doubt be useful.

INDIAN MEDICAL NEWS.

DR. T. G. HEWLETT, health officer of the municipality of Bombay, is coming to England on six months' leave of absence, and Dr. Lumsdaine, superintendent of Matheran, who went to Abyssinia with the Pioneer Force, and remained there till the close of the expedition, will act as health officer during the absence of Dr. Hewlett. We (*Bombay Gazette*) are extremely sorry to hear that it is the state of Dr. Hewlett's health which obliges him to proceed to Europe. We cannot, however, say that we are surprised; three years of work such as has fallen to the lot of Dr. Hewlett, whilst holding the appointment of health officer of

Bombay, is enough to destroy the health of a Hercules. The strain has not only been mental, but physical. Dr. Hewlett, besides discharging most ably his legitimate duties as consulting officer of health, has also most energetically superintended the conservancy of the island, and it is to this double strain that his health has in all probability succumbed. It must be a source of regret to the municipality that they did not sufficiently economise the services of so valuable an officer.—*New Hospitals for Madras.* At an anniversary of the Medical College at Madras, on July 1st, Lord Napier mentioned that the local government had proposed for the consideration of the Government of India, the creation of a new Female Civil Hospital, a Lock Hospital, a new Lunatic Asylum, and establishment for instruction of skilled female nurses, a Sanitary Establishment at Ennore in lieu of the obsolete one at Poonamallee, and the organisation of a Sanitary Establishment throughout the Presidency. He added that he did not wish to be understood as saying that all these schemes had received sanction, for "the Government of Madras proposes, and the Government of India disposes."—*The Madras Medical Fund.* A meeting of the subscribers to the Madras Medical Fund on July 7th. Large annuities were granted to retired surgeons A. Lorimer, M.D., and J. R. Scott, M.D. The liberated smal annuities were given to retired surgeons W. W. Rawes, and J. Mackintosh.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

Lecture XXI.

Mollusca.

Odontophora.
Branchiogasteropoda Cephalopoda
Pteropoda
Pulmogasteropoda
Lamellibranchiata.

The various groups of Mollusca, abovenamed, agree with the Arthropoda in that they have no true internal skeleton (such as exists in the Vertebrata), and in that the nervous system is perforated by the gullet. They differ, on the other hand, from the Arthropoda, inasmuch as they have no proper limbs, and in that the body is not segmented. Moreover, in most, if not in all, the hæmal (not, as in Arthropods, the neural) surface is the one which first appears in the development of the embryo.

The Mollusca may be conveniently divided into two groups: 1, those which possess an odontophore, or lingual ribbon beset with teeth; and 2, those destitute of such a structure. The second group includes only the Lamellibranchiate, bivalve shell-fish, sometimes called acephalous molluscs. The first group, on the other hand, embraces: 1, Branchiogasteropoda, or gill-bearing snails and slugs; 2, the Cephalopoda, or cuttle-fishes, squids, nautili, ammonites, etc; 3, the Pteropoda, small oceanic quick-swimming molluscs, such as Pneumodermon, etc.; and 4, the Pulmogasteropoda, or the snails and slugs which breathe air by a pulmonary sac.

Different as is the general outline of the creatures composing all the groups of the Mollusca, they all present, nevertheless, a certain fundamental unity of structure. In its simplest form, it may be said to consist of an antero-posteriorly extended body, supported on a similarly extended locomotive structure, the "foot"; while from the dorsum of the body a fold depends more or less on all sides, and is termed the pallium, or mantle. In Lamellibranchs, this fold is greatly developed on each side of the body, and the latter is prolonged, so that what is in them called "the foot" consists of part of the body, as well as of the foot proper. Between the body and each lateral fold, or lobe, of the mantle are the gills, almost always in the form of lamellæ, the bases of which form a transverse partition separating a small suprabranchial chamber from the large one beneath. The gills are richly ciliated, and thus currents are produced, which flow from the surrounding medium, through apertures in the gills, into the suprabranchial chamber, and thence out of the body. The two lobes of the mantle are often much united in the middle line below the body, and sometimes (as, *e.g.*, in Mya); its posterior end is much produced, prolonging backwards the branchial and suprabranchial chambers, with the median partition, so as to form a long tube enclosing two canals, one inhalent, the other exhalent. In such cases, the body of the animal remains buried in sand or mud, at the surface of which this long tube opens. In some Lamellibranchs, the dorsal line is much shortened, *e.g.*, in Pecten; in others, it is lengthened, as in Solen. It attains its maximum of length in Teredo, which is quite vermiform.

In the Gasteropoda, the foot is well defined, and sometimes divisible in Propodium, Mesopodium, and Metapodium, as, *e.g.*, in Atlanta. The anus, unlike that of the Lamellibranchiata, is scarcely ever opposite the mouth; but is, as it were, thrust round to one side (generally the right) by the excess in development of the other side of the body, which very generally is produced upwards in a spiral manner. The mantle reflected from it encloses the gills or forms the lung-cavity. In Aplysia, there are lateral processes (one on each side of the body) termed epipodia; and in some allied forms, they are brightly coloured, and can be rapidly moved, the animals flapping through the water by means of them like marine butterflies. Traces of the epipodia are to be found in the larvæ of most Gasteropods, though they generally disappear in adults.

In the Pteropoda, these processes are immensely developed, while the head and foot are rudimentary. In Pneumodermon, however, there is a true, though small, foot. The structure of the Cephalopoda is, at first sight, very unlike that of the other molluscs. There is a large body and head, the latter provided with large eyes like those of fishes. In the middle of the head is a mouth, with jaws like those of a parrot, and round it radiate the arms, eight or ten in number, and furnished with curious suckers. The mantle, by its alternate respiratory movements of contraction and expansion, reminds the spectator of the breathing of a mammal; while the water driven out at each contraction passes through a peculiar structure termed the funnel. The study of development, however, reveals the concealed homologies. The arms are nothing but productions of the margin of the foot, and indeed their nervous supply comes from the pedal ganglia. The mouth, at first, is not surrounded by them, but is on the opposite side of the body to the anus. The arms, however, gradually grow round and enclose the mouth. A process appears on each side of the body, which is evidently an epipodium, and by the junction of these epipodia the funnel is formed.

Remarkable blushes of colour pass over the exterior of living Cephalopods. These are produced structures called "chromatophores". Each is a small elastic bag of pigment, which, when contracted, is a mere black speck, but which is expanded, and its colour shewn, by the contraction of radiating muscular fibres implanted into the exterior of the bag.

The shells of molluscs are calcified or horny structures in the outer layer of the epidermis, and thus answer to the exoskeleton of the Annulata. It may be secreted by the pallium, or by the metapodial part of the foot. In the latter case, it is an operculum, or (in the Argonaut) a peculiar pedal shell.

A pallial shell may be either external, as in the common snail, nautilus, etc.; or internal, as in Aphysia, the slug, etc.

Shells may be either bivalve (Lamellibranchs), multivalve (Chiton), or univalve (snail). In the latter case, however spiral it may become, it is always first developed on a cone. In the Cephalopods, we meet with a chambered and Siphunculate shell, as in the Nautilus; the parts of the shell successively quitted by the contained animal being partitioned off, and the partitions traversed by a continuous tube, the syphon.

REPRESENTATION OF THE SCOTCH UNIVERSITIES.

A MEETING of Graduates of the Universities of Glasgow and Aberdeen was held in the Convocation House, Oxford, on Thursday, August 6th, at eleven o'clock; Dr. A. P. Stewart, London, in the chair. The object of the meeting was to consider what steps should be taken to secure medical representation of these Universities in Parliament. The attendance was influential; and an unanimous feeling prevailed that it was now of the greatest importance that the medical profession should be more fully represented in Parliament than it at present is. The following resolutions were unanimously carried. 1. That this meeting form itself into a provisional Committee for the purpose of watching the question of the medical representation in Parliament of the Universities of Glasgow and Aberdeen, and of taking such steps as they may see fit to secure such representation, with power to add to their number. 2. That a subcommittee be formed of an equal number of medical Graduates of the Universities of Glasgow and Aberdeen, to carry out the preceding resolution, with power to add to their number, viz., Dr. Stewart, *Chairman*; Dr. Andrew Clark; Dr. O'Bryen; Dr. A. P. Silver; and Dr. John Murray, *Honorary Secretary*.

THIRTY-SIXTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in OXFORD, August 4th, 5th, 6th, and 7th, 1868.

THE first General Meeting was held at 8 P.M. on Tuesday, August 4, in the grand historic hall of Christ Church. The hall was crowded in every part, and in a semicircle at the end, on a raised platform, were the retiring President (Professor Stokes), the President-elect (Professor Acland), the Vice-Chancellor (Dr. Leighton), the Dean of Christ Church, the late Principal of King's College, London (Dr. Jelf), T. D. Acland, Esq., M.P., with the President of the Council (Dr. Sibson), the Treasurer (Dr. Falconer), and other gentlemen connected with the University and officers of the Association.

Dr. STOKES, the retiring President, delivered a Valedictory Address, which was inserted at page 125 of last week's JOURNAL.

Dr. ACLAND then took the chair, and was welcomed by warm and long-continued cheering. He at once delivered his Inaugural Address, which appeared in our columns of last week. This was listened to with the greatest attention, and at different points was loudly applauded; and when he resumed his seat, the audience testified their delight with what they had heard by applauding for several minutes.

Dr. SIBSON proposed—"That the cordial thanks of the meeting be given to Dr. Stokes for his valuable services as President during the past year, and that he be elected a Vice-President of the Association."

What Dr. Stokes had done during his year of office had convinced all members of the Association that in him they had a truly good and great physician, and one who had been a good and great President of the Association. Of their late President he (Dr. Sibson) need only say that all who knew him must love him, and that to be associated with him had been a pleasure to all. [*Loud cheers.*]

Mr. J. PAGET (London), who was loudly cheered on rising, seconded the motion, and said he did so with what, with some men, were the strongest feelings of their nature—envy and regret. He had not been able to be present at the splendid meeting last year at Dublin, and be one of those who shared there in what he might call the jovial hospitality afforded to the Association. [*Cheers.*] But he knew enough of the late President to say that in counsel he was all that was moderate and wise; learned in science; upright as a man to men; and in social life genial and kind. In all these points the late President set those over whom he had presided an example, and this example and the temper he had shewn would dwell in the minds of the members for many years to come. [*Cheers.*]

The vote was carried by acclamation.

Dr. STOKES, in reply, said—I can simply return to you my thanks, and give you the assurance that, as long as I am spared the power, I will continue every effort to preserve the interests of the British Medical Association. [*Cheers.*]

Report of Council.—Mr. Watkin Williams, General Secretary, read the Report of Council. It was published at page 146 of last week's JOURNAL.

Mr. CORDY BURROWS (Brighton) moved the reception and adoption of the report. The Association, he said, had never had so satisfactory a report as that read, nor had there ever been so influential a gathering of the Association as that now assembled. The report started with congratulating the Association on having secured their present President; and the admirable and eloquent address they had heard that evening proved that they were wise in their selection in this particular, as well as in the choice of their place of meeting. [*Cheers.*] The deep research, the earnest thought, and the eloquent language which marked the address from the President had reminded him of the meeting in this ancient city many years ago; and he knew he should go home from this meeting the more pleased with thinking that the Association had in Professor Acland one who was amply fitted to make this University of practical advantage to the medical profession. [*Cheers.*] On behalf of the profession, he (Mr. Burrows) would ask their President to use his best efforts to make this great mother of learning a place where the sons of medical men could be sent to in preference to their being sent to such nests of profligacy as were presented in large towns. [*Hear.*] It would be far better for the sons of medical men to be sent to Oxford, under the eyes of such men as Professor Acland, than to the metropolis. To speak, however, on the motion before the meeting, it must be noticed that the Association had never before to congratulate itself on such an increase in its numbers as it had at this meeting; for in spite of deaths, resignations, and the names erased for non-payment of subscriptions, the increase was very great, with, of course, a proportionate increase of income. [*Cheers.*] The report also mentioned the efforts which had been made to obtain a larger representation on the Medical Council of Great Britain. [*Hear.*] The report said those efforts had not been successful; but, notwithstanding that want of success, he held, and he spoke the opinions of the general body of practitioners, steps should be continued to obtain the representation they desired in this important body. The report, altogether, was one of a highly gratifying character, and whether as regarded the fact that the BRITISH MEDICAL JOURNAL now held the position as the first medical journal of the day, or in respect to the great increase in importance and numbers of the Association, the members had equally reason to congratulate themselves, and he had great pleasure in moving this resolution.

Dr. JEAFFRESON (Leamington) seconded the resolution.

Mr. GAMGEE (Birmingham) said he rose to avail himself of his constitutional right, as a member of the Association, of reviewing the Report of Council. He desired, particularly, to direct attention to the paragraph in the report in which an account was rendered of the interview with the General Medical Council respecting the direct representation of the registered practitioner in that Council. It was not proposed, it should be remembered, to enlarge the Council at once, but simply to ask for an inquiry whether it would be advisable to widen the basis of representation; but though only an inquiry was asked for by the deputation, the Medical Council rejected the temperate application, and the President told the deputation that they came merely from the Committee of the Council of the Association. He went on to complain that the report of the deputation which appeared in the JOURNAL was less full than the reports which appeared in other papers. He expressed himself as anxious to bear testimony to the exquisite managerial tact of the editor, to the great improvement he had wrought in the BRITISH MEDICAL JOURNAL as a professional newspaper, to the large increase of valuable scientific communications he had received for it; but he could not help expressing regret that general questions should have been discussed when exhaustive treatment of other important questions was needed. Having further touched upon the manner in which the deputation had spoken before the Medical Council, and the votes which had been given against the memorial by the President, President-elect, and two ex-Presidents of the Association, he went on to say that the BRITISH MEDICAL JOURNAL had been altogether silent in its leader columns on this matter. He further said that the representatives of the medical corporations were all against reform; but they must be subjugated, and the profession would accept no amendment of the Medical Act which did not provide for such a practical representation as would enable the practitioners to manage their own affairs in a spirit of progress, and on principles of sound sense and wise economy.

Dr. SIBSON begged to correct Mr. Gamgee in one important particular, namely, with respect to the position in which the deputation attended before the Medical Council. He (Dr. Sibson) assured Mr. Gamgee that the Medical Council were corrected in their statement as to the deputation only representing the Committee of Council; and it was distinctly shown to the Medical Council that the deputation was from the Association, and that the memorial embodied the resolutions agreed to at the meeting held last year in Dublin.

Dr. DAVEY (Northwoods, Bristol) trusted that the "existing circumstances," whatever they were, mentioned in the report, would be removed by the time the matter was again pressed on the attention of the Medical Council as to the representation of the medical practitioner.

After some further remarks, from Mr. HADLEY (Birmingham), the Rev. Dr. BELL (Goole), and Sir W. R. WILDE (Dublin), the motion for the adoption of the Report was put and unanimously agreed to.

Representation of the Profession in the Medical Council.—Mr. BURROWS moved—"That the best thanks of the meeting be given to the Subcommittee which was formed to obtain direct representation of the registered practitioners on the General Medical Council, and that the Committee be requested to continue their labours, and to take the earliest opportunity of bringing the subject before the Government and the legislature."

Mr. BARTLETT seconded the motion.

Mr. NUNNELEY (Leeds), in supporting the motion, said the General Medical Council adopted the unsatisfactory expedient of saying this was not the time for reform. It was part of the original scheme that there should be a representation of the general medical profession on the Council, and it was never dreamt that it would remain as it was now. [*Hear.*] As to the right which the general body of practitioners had to be represented on that Council, he would ask, who supported the Council by the payment of fees but the general practitioner? That being so, he did not see why the medical profession should submit to taxation without representation. [*Cheers.*] He hoped that the profession would never rest until it obtained such an alteration in the constitution of the General Medical Council as would give admission to the representatives of the practitioners. It might be said that this desire was a mere prejudice, a mere fancy, but it was such a prejudice as was most innocent, and as a fancy it would do no harm. Progress was the order of the day; and he should be much surprised if, after the difficulties the Association had already surmounted, it was to be stopped in its efforts to obtain the reform in the Council it sought. [*Hear, and cheers.*]

Mr. HECKSTALL SMITH, as a member both of the Council of the Association and of the Committee of Council, contended that both bodies had done their best to bring about reform in the General Medical Council, and they had not been lukewarm in this work. Bearing in mind that what had been done for the profession had been done by this Association, he was convinced that it was the duty of the Association to persevere, in spite of the opposition it had received. The opposition could be overcome, and should be overcome, so as to obtain for the medical profession representation in the body which it had been the means of raising.

Dr. WEBSTER (Dulwich) said the General Medical Council itself was a body representing a reform. It had created the Medical Act and the Medical Council, and it was time now that that reform to which it had given birth should be itself reformed by it. [*Hear.*] This Association, speaking for the profession, held, he believed, that the gentlemen on the Council should be added to, and not superseded; for in his opinion it would be extremely imprudent to supersede those who were on the Council after the experience they had gained.

Mr. GAMGEE moved that five members from the general body of the Association should be appointed to act with the Subcommittee. He proposed this in no spirit of opposition, but to strengthen the hands of the Association Council.

Mr. HUSBAND (York) seconded the rider, and said he most cordially agreed with the spirit in which it had been proposed. For his part, if any one said that the Committee of Council and the Council of the Association had not done their duty in this matter, he should deny it, for he considered they had pressed the subject forward by all legitimate means, and in a most powerful manner. It was urged, as a reason why there should not be a reform of the General Medical Council, that the profession was not taxed for that body; but every penny of the expenses of that body came from the profession. [*Hear.*] Either the Council should pay its own expenses, or should give the profession a part in the representation. The general practitioners represented the working men of the profession; and he did not wish to say a word which might appear to be against the consulting practitioners—because he acted at times as a consulting practitioner himself—[*A laugh*]; but he held that the consulting practitioners should not alone be looked to as representatives on the Council.

Dr. STEWART (London) said that there was no division of opinion among the Committee of Council on the question that the registered practitioners should be represented in the Medical Council, and the only difference of opinion which existed was as to the mode of carrying out this representation. For his part, he desired to see direct representation on the General Medical Council, and he had heard no valid arguments given in answer to that position. [*Hear, and cheers.*] Whatever difficulty there was in the way of carrying this could be overcome, and the profession would receive a full representation upon the General Medical Council. [*Cheers.*]

Mr. ERNEST HART said that, as his name had been mentioned by Mr. Gamgee, who held it to be a grievance that no leader appeared in the JOURNAL commenting on what had taken place on the General Medical Council, he might be allowed to say a word of explanation. It appeared to him that as the subject was one which would of necessity come before the Association, the constituents alike of the JOURNAL and of the Committee, he was not, with regard to the other subjects, in the position of the mere journalists of whom Mr. Gamgee had spoken, and had no right to anticipate the opinions of the general body of the Association, of which the meeting was fixed to take place so shortly after the meeting of the Medical Council. [*Hear, and cheers.*] The opinions which had been expressed at that meeting had justified his view, and had vindicated the course he took. [*Cheers.*] When the Association could in general meeting speak for itself, no individual utterance could equal it in power, or could usefully anticipate it.

Dr. WATERS (Chester) said that he was present at the deputation to the Medical Council, and in his opinion the Editor of the JOURNAL had acted very judiciously in not anticipating by any strong expression of opinion a matter which was shortly to come before the Association. The Editor was aware that, as Chairman of the Committee on this subject, it was his full and declared intention to submit, at a convenient moment, to the meeting the subject now under discussion, and in the same sense.

The rider was accepted by the mover of the original resolution, and the motion thus added to was agreed to unanimously. The Committee, then appointed, consists of the following gentlemen: E. Waters, M.D. (Chester); W. D. Husband, Esq. (York); G. Southam, Esq. (Manchester); H. Simpson, M.D. (Manchester); T. Nunneley, Esq. (Leeds); T. P. Heslop, M.D. (Birmingham); J. Russell, M.D. (Birmingham); J. Cordy Burrows, Esq. (Brighton); J. G. Davey, M.D. (Northwoods); J. S. Gamgee, Esq. (Birmingham).

Election of General Secretary.—Dr. FALCONER (Bath) moved, Mr. SOUTHAM (Manchester) seconded, and it was unanimously resolved: "That Mr. Watkin Williams be re-elected Secretary to the British Medical Association."

Appointment of Auditors.—Dr. WEBSTER (Northampton) moved, and Dr. WILLIAMS seconded: "That Mr. W. J. Church of Bath and Dr. E. Long Fox (Clifton) be appointed Auditors."

A brief conversation followed, in the course of which Dr. FALCONER said that he always had the accounts examined at his own expense by a public accountant, in addition to the audit by the Association's Auditors.

The resolution was then adopted, and a warm vote of thanks was also given to the Treasurer and to the Auditors for the past year.

Medical Benevolent Fund.—Mr. WATKIN WILLIAMS read the Report of the Medical Benevolent Fund.

Sir WILLIAM WILDE (Dublin) moved, and Dr. WEBSTER seconded: "That the Report of the Medical Benevolent Fund now read be received and adopted." The motion was unanimously agreed to.

Election of Members.—Mr. WATKIN WILLIAMS proposed the following addition to Law xiv:—"Provided he shall have the votes of three-fourths of those present at such meeting." The proposal was carried: and the law for the election of ordinary members, therefore, now stands thus:—"Any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by any three members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch; provided he shall have the votes of three-fourths of those present at such meeting."

The resolution was carried.

Honorary Members. Dr. HENRY moved that Laws iii and xviii be altered as follows: the principal object being to give the Association the power of electing Honorary Members who do not belong to the medical profession. "III. The Association shall consist of Ordinary Members' being duly qualified members of the medical profession, and of Honorary Members having the qualifications described in Law xviii." "XVIII. Honorary Members may be elected by the Association at an Annual Meeting, on the recommendation of the Council. The following classes of persons shall be eligible: *a.* Members of the medical profession, of scientific eminence, residing in the United Kingdom, or in the Colonies or foreign countries; *b.* Gentlemen resident in the United Kingdom, or in the Colonies, or in foreign countries, not belonging to the medical profession, but distinguished in sanitary or in physical science; *c.* Gentlemen who may have rendered distinguished service to the Association. Honorary Members shall not be entitled to any further privilege than that of attendance at the Annual Meetings, and to the receipt by any such Member of copies of any memoir or communication of his printed by the Association."

This motion, having been duly seconded, was unanimously carried.

The General Council of the Association.—Dr. W. ROBERTS (Manchester) moved "That Dr. Sibson, Dr. Russell Reynolds, Dr. Gairdner, Mr. Southam, and Dr. Roberts be appointed a Committee to consider the mode of electing the General Council, and to report to the meeting before its close."

The Rev. Dr. BELL seconded the motion; which was carried.

The Collection of Subscriptions.—The Rev. Dr. BELL moved "That it is desirable to secure a Local Treasurer for the District of each Branch Association (the Secretary or Treasurer of the Branch might be the best suited if it could be so arranged), to whom the subscriptions of members might be paid; and that the gross amounts received should be forwarded to the General Treasurer, and not to the General Secretary, as is now done; and that the list of paid subscriptions might be published in the JOURNAL, instead of separate receipts being given." Dr. Bell explained that he believed in this way the subscriptions might be more readily and completely collected, and the organisation of the Branches might be strengthened.

After some discussion, the subject was referred to a Committee, consisting of the Rev. Dr. Bell, Dr. Falconer, Dr. Henry Marshall, Mr. Griffith (Wrexham), Mr. Ernest Hart, and Dr. Gibbon, to report to the present meeting.

The meeting then closed, shortly before midnight, with a vote of thanks to the President of Council for having, in the absence of Dr. Acland, patiently presided while the notice paper was being cleared.

WEDNESDAY, AUGUST 5th, 1868.

Committee of Council.—The new General Council of the Association met, at 9.30 A.M., in the Convocation House, and elected the following ten gentlemen as members of the Committee of Council for the year: E. Bartleet, Esq. (Campden); R. Ceely, Esq. (Aylesbury); M. H. Clayton, Esq. (Birmingham); W. D. Husband, Esq. (York); T. Nunneley, Esq. (Leeds); T. Heckstall Smith, Esq. (St. Mary Cray); G. Southam, Esq. (Manchester); A. T. Waters, M.D. (Liverpool); C. G. Wheelhouse, Esq. (Leeds); and M. A. E. Wilkinson, M.D. (Manchester).

Honorary Degrees.—At half-past 10, there was a large and brilliant gathering in the Sheldonian Theatre to witness the ceremony of conferring the honorary degree of D.C.L. upon eminent members of the medical profession. The Rev. Dr. Leighton, the Vice-Chancellor, presided; and there were gathered around many of his learned colleagues in their academic robes. The Vice-Chancellor opened the Convocation, and then called for the voice of the assembly as to conferring the degree upon Sir Charles Locock, M.D., F.R.S.; Sir William Jenner, M.D., F.R.S.; the Rev. Samuel Haughton, M.D., F.R.S.; William Withey Gull, M.D.; James Paget, F.R.S.; John Simon, F.R.S.; and James Syme, F.R.S. The call being for the names without any *non placet* whatever, Sir Travers Twiss introduced the gentlemen upon whom the honour was to be conferred. Sir W. Jenner was absent, but his name was received most cordially; and each of the others, particularly Mr. Paget, was loudly cheered as he advanced to the President's chair after having his title to the honour pronounced by Sir Travers Twiss.

At 11 A.M., the members assembled in the Divinity School; Dr. ACLAND, President, in the chair.

Mr. WATKIN WILLIAMS announced that the Duke of Marlborough had very liberally ordered that Blenheim Palace should be open to members of the Association during the meeting; and that Mr. Harcourt had done the same with regard to Nuneham.

Place of Meeting in 1869: *President-Elect.*—Mr. WATKIN WILLIAMS stated that the General Council had resolved to recommend Leeds as the place of meeting for next year.

Mr. NUNNELEY said it had been deputed to him to move—"That the next meeting be held in Leeds; and that Dr. Chadwick be President-elect." The Council had received an invitation from forty medical gentlemen of that town. For his own part, he would say that it would afford him great pleasure to help to make this visit to Leeds of interest and profit. It was now twenty-five years since a visit had been paid to Leeds by the Association, which was then a small provincial body, but had since so enlarged its boundaries that it might now be called a national institution. Though Leeds would form a very strong contrast to the city in which they were at present met, the Association might be sure they would, at least, receive a very cordial welcome. This year and last year, the Association had met at great cities, wherein there were many objects of interest; and it might seem a very bold thing indeed to invite the Association to a large dirty town, the size and smoke of which might seem its only recommendations to notice. But the Leeds people were a bold people, and they asked the favour of a visit from the Association. He believed, if the invitation should be accepted, the Leeds people would be able to present some features of interest to this Association. There was a large mass of human beings in Leeds, and it was with human beings that members of this Association had to deal. There was a large busy manufacturing town to be seen, where the appliances of the profession were made; and without those appliances the learning acquired in such quiet retreats as that in which the Association now met would be of little value. In Leeds, would be seen a noble infirmary, and a town and neighbourhood not devoid of interest, and which, he was sure, his fellow townsmen would make of interest. Unfortunately, the town could not afford such accommodation as Oxford could, and the members would have to depend upon the residents of the town; but they might be sure that the visitors would receive a hearty Yorkshire welcome.

Mr. HUSBAND (York) seconded the motion. Such a visit to Leeds would be taken as a compliment to Yorkshire, and every Yorkshire practitioner would do his best to give the Association welcome. The town, he further observed, which had given birth to the Heys, the Teales, and the Smiths, must be of interest to a profession, the members of which proved by their lives their devotion to their kind.

The resolution was agreed to unanimously.

Mr. NUNNELEY suggested that the meeting should take place a week later or a week earlier, in order to avoid the assize week.—This question was left to the Council.

Dr. CHADWICK, who was cordially received, returned thanks for the honour of being elected President for the next year. He would do all he could to make the visit a happy one; and he had such confidence in his professional brethren of Leeds as to be able to say, on their behalf, that they would do all they could to make the visit profitable and pleasant. His fellow townsmen, too, would value the importance of the honour which had been conferred upon the town, and they would feel it a lasting shame if the visit should fall short, in any particular, from others.

Honorary Members.—Dr. SIBSON proposed the names of gentlemen to be elected Honorary Members of the Association. The Association had visited three Universities; and it proposed to elect gentlemen from each, as well as some among the foreign visitors. The list he had the honour to propose was as follows. The Rev. Dr. Cookson, late Vice-Chancellor of the University of Cambridge; Professor Airy, Cambridge; Professor Stokes, Cambridge; Professor Sedgwick, Cambridge; the Provost of Trinity College, Dublin; the Vice-Provost of Trinity College, Dublin; the Rev. Joseph Carson, D.D., Senior Fellow of Trinity College, Dublin; the Rev. F. K. Leighton, D.D., Vice-Chancellor, Oxford; the Very Rev. the Dean of Christ Church, Oxford; the Warden of New College, Oxford; the Principal of St. Mary's Hall, Oxford; Sir Benjamin Brodie, Bart., Oxford; Professor Phillips, Oxford; Professor Clifton, Oxford; E. Chapman, Esq., M.A., Oxford; M. Duchenne de Boulogne; M. Marey, Paris; Professor Victor Carus, Leipsic; Professor Gross, United States of America; Edwin Chadwick, Esq., C.B.

These were elected by acclamation; the names being put first *seriatim* and then together.

The PRESIDENT expressed his deep regret that the power of the University of Oxford to confer honorary degrees on members of this Association was limited. There were stringent rules requiring particular forms to be gone through before such a proposal; and one of these rules was, that notice should be given before the middle of last June. Before that date, it was not dreamt that visitors whom the University would have been glad so to honour would have been present. The reason the University had not acted in the manner he had mentioned was because they could only do so in term time.

Report on State Medicine.—Dr. STEWART presented the Report of the Joint Committee of the British Medical and Social Science Associations on Public Medicine. [This will be published in our next number.]

Dr. FARR said that the Committee had done the Association's work well; and proposed—"That the Report be received and adopted." As an old member of the Association, he rejoiced that it was still associated with this movement, and that in its actions it was not isolated from the community, but had placed itself at the head of this matter, which was a question of great and national importance. He should also propose that the Committee should be re-appointed, to show those gentlemen that the Association appreciated the good service they had done.

Mr. HECKSTALL SMITH seconded the motion for the reception and adoption of the Report, which was carried.

Dr. FARR then proposed the following gentlemen as a Public Health Committee: Dr. Acland, Chairman; Dr. Arlidge; Mr. T. J. Dyke; Dr. Gairdner; Dr. Alfred Hill; Dr. Mapother; Dr. Maudsley; Dr. Paget; Mr. Arthur Ransome; Dr. Rumsey; Dr. Strange; Dr. A. T. Waters; Dr. Burke; Dr. Falconer; Mr. Ernest Hart; Dr. Lankester; Sir J. Ranald Martin; Dr. J. E. Morgan; Dr. Philipson; Dr. Tindal Robertson; Mr. Heckstall Smith; Dr. J. A. Symonds; and Dr. A. P. Stewart.

Dr. A. FLEMING seconded the proposal, which was carried unanimously.

The Address in Physiology was then delivered by Dr. ROLLESTON, F.R.S. (see p. 155).

Dr. HUMPHRY (Cambridge) proposed—"That the cordial thanks of the meeting be given to Professor Rolleston for his valuable address." In proposing the vote, Professor Humphry congratulated the Association on the initiation of the Physiological Section; and he did so most warmly, on account of the vast importance of Physiology to Medicine, and because he felt, and he would make bold to express the feeling, that the foundations of scientific medicine had yet to be laid on the side of physiology. Such a statement might seem strange; but he thought it would be admitted by those who were accustomed to listen to that voice which, they had just been told, either from within or without, called upon each one to give an account of his conduct, *i.e.*, of his treatment of disease. How little do we really know of the action of our remedies. How poor an answer can we give to the inquiries of intelligent students as to *modus operandi* of the acids and alkalies, of iodide and bromide of potassium, and the other drugs we so freely give. A shrug of the shoulder—a humbling confession of utter ignorance. He was fain to hope that we might discern the dawning of a little light upon this dark scene in the interest which is being now taken in the investigation of electro-magnetism and osmosis in their relation to therapeutics, in the mode of action of poisons, and other kindred subjects, as well in the spirit which is shown by the institution of this Physiological Section. And truly might he congratulate them on the manner in which their work had been inaugurated by an address which, he might confidently affirm, could be given by no other man but the one to whom they had been listening with so much pleasure. Such an amount of material could have been carefully culled from so large an area with due recognition of the sources from which it was obtained, skilfully confined to the elucidation of great principles, ornamented with oratory, enlivened by wit, and communicated in so impressive and agreeable a manner, only by Professor Rolleston. He had strikingly pointed out to them the relations of physiology to philosophy on the one hand, and to the simplest matter of practical routine, such as the oiling of a catheter, on the other. But it was futile to attempt even to allude to the numerous points which had been so ably brought before them; and he would detain them no longer. An address at once so powerful and so charming he had never heard. He would only further remark that, as all which relates to the Universities, especially in the teaching of natural science, is of deep interest to our profession, so we may heartily rejoice that the chair of Physiology in Oxford is filled by one thus eminently able and energetically willing to promote and give interest to this noble study.

Dr. DAVEY seconded the motion, which was carried unanimously.

The meeting then adjourned; and re-assembled in the Divinity School at 2 P.M.

Relation of Food to Force.—The Rev. Professor HAUGHTON (Dublin) read a paper on Sources of Vital and Mechanical Force derived from Food, and its Influence on Medical Practice (see p. 163). The subject was found so interesting that the meeting resolved by a formal vote to adjourn the sectional meetings, in order to allow Professor Haughton to finish his address; and, at its conclusion, thanks were voted to him.

At half-past 3 P.M., meetings of the several sections were held.

The President's Soirée.—In the evening, the President gave a *soirée*, which was very numerously attended by members of the Association, as well as by a large number of visitors, including many ladies, in the University Museum. This noble and exquisitely designed and decorated building was erected a few years since, on the suggestion of Dr. Acland, for the purpose of affording the Oxford student more attractive and available means of cultivating Natural Science than any which previously existed in the University; and, both in the richness and excellent arrangement of the collection, and in the well-known zeal and eminence of the several teachers of Natural Science in Oxford, there is every reason why—as is actually the case—many students should, during term-time, avail themselves of the resources of the institution. The extensive zoological, anatomical, and pathological collections, as well as the simple but complete laboratory of practical chemistry, were objects of interest to many of the visitors. In addition, to these, the indigenous attractions of the place, many others—not to speak of the special Annual Museum of the Association, which we shall describe elsewhere—were placed there for this special occasion.

Professor BEALE exhibited, under a large number of microscopes, placed in the central area and upper corridor, an extensive series of microscopic preparations, illustrating the structure of certain tissues and organs of man and animals in health and disease. The specimens were each accompanied by a description and drawing; and an account of them, with copious illustrations, was also—with a considerate liberality for which Dr. Beale deserves thanks—printed and distributed for the use of visitors. The collection included 22 specimens illustrating the structure of some of the most important tissues in health, and shewing the varying proportions of "germinal matter" and "formed material" in health and disease; 4 specimens shewing the structure of the small arteries in health and some of the changes taking place in disease; 28 specimens of the structure and general arrangement of nerves, including 8 by Mr. Lockhart Clarke, illustrating the structure of different parts of the nervous centres in health and in disease; 20 preparations shewing various points of interest in the structure of the liver of vertebrata; 13 preparations illustrating the structure of the kidney, including 6 made by Mr. Bowman to illustrate his well-known memoir on the Kidney published in 1842; 7 specimens of compound tissues prepared in various ways; and 21 specimens of urinary deposits. Such a complete collection of histological specimens, healthy and morbid, had never previously been produced at an annual meeting of the Association; and hearty thanks are due to Dr. Beale for its formation and exhibitions.. The microscopes and specimens were allowed to remain for examination during part of the next day. Sixty of the microscopes were furnished by Mr. Collins of London; the remainder by the members of the Oxford Microscopical Society.

Professor CLIFTON exhibited and described, in his lecture-room, various modern instruments for physical research, including Helmholtz's apparatus for investigating the nature of sound.

In the large lecture-room of the Museum, M. MAREY of Paris, the inventor of the sphygmograph, gave a description and demonstration of that instrument and of the cardiograph and allied apparatus, which was listened to with much interest by a large audience.

During the evening, the visitors were abundantly supplied with tea and coffee, cider-cup, ice, etc. Everything passed off in the most agreeable manner; and the *soirée* may justly be regarded as one of the most brilliant and successful of any of such reunions which have been held at the annual meetings of the Association. Special thanks are due to Mr. Robertson, the Curator of the Museum, for the very efficient manner in which he aided in carrying out the plans of Dr. Acland and the local secretaries.

THURSDAY, AUGUST 6th.

The members assembled at 10 A.M., in the Divinity School; Dr. ACLAND, President, in the Chair.

The Report on the Action of Mercury as a Cholagogue was read by Dr. HUGHES BENNETT.

Dr. STOKES proposed—"That the Report read by Professor Hughes Bennett be received; and that the cordial thanks of this meeting be given to Professor Bennett and the Committee for their able Report."

Dr. E. WATERS seconded the motion. The Report would tend more to give a scientific character to the proceedings than perhaps any other step at Oxford. He felt glad to think that this Association had been the first to take such a step as the initiation of such inquiries; and he trusted that such inquiries would not cease with this meeting.

The resolution was carried unanimously.

Dr. SIBSON proposed, Dr. STEWART seconded, and it was resolved —"That the debate be adjourned to Friday morning, at 10 A.M."

Dr. STEWART proposed—"That it be a recommendation to the Committee of Council to make further grants to the Therapeutical Inquiry Committee."

Mr. NUNNELEY seconded the motion. It would be out of character for the Association to wish the Committee to be out of pocket by the investigations; and he therefore moved, as an addition to the resolution, that the question of funds be referred to the Committee of Council.

The resolution, as amended, was carried.

The Report of the Committee on Parliamentary Bills was then presented by Dr. GIBBON. (See page 144 of last week's JOURNAL.) A resolution adopting the Report, and thanking the Committee, was passed. The Committee was reappointed, with the addition (at a subsequent stage of the proceedings, on the proposal of Mr. ERNEST HART) of the following members: Sir Dominic Corrigan, Bart. (Dublin); Dr. W. MacCormac (Belfast); Rev. S. Haughton, M.D. (Dublin); Dr. Macnamara (Dublin); Dr. Aquilla Smith (Dublin); Dr. R. McDonnell (Dublin); Dr. G. H. Porter (Dublin); Dr. Mapother (Dublin); Dr. Gairdner (Glasgow); and Dr. Hughes Bennett (Edinburgh).

Poor-law Medical Reform.—The GENERAL SECRETARY said he had received a letter from the Poor-law Medical Officers' Association, asking for the cooperation of the British Medical Association.

Mr. ERNEST HART moved—"That a Committee be appointed to confer with the Council of the Poor-law Medical Officers' Association, and to cooperate in promoting the interests of Poor-law Medical Reform." He proposed also, "That the following gentlemen be appointed to act, with power to add to their number; Dr. Sibson; Dr. Falconer; Dr. Stewart; Dr. Heslop (Birmingham); Mr. Newnham (Wolverhampton); Mr. Fleischmann (Cheltenham); Mr. Heckstall Smith (St. Mary Cray); Mr. Ernest Hart; Mr. Edwin Chadwick, C.B.; Mr. Charles Neate, M.P.; Dr. Armstrong (Cork); Dr. Beatty (Dublin); Dr. T. L. Mackesy (Waterford); Dr. Macnamara, Dr. Quinan, Mr. Tufnell, and Dr. Mapother (Dublin); Dr. Gairdner (Glasgow); and Dr. Hughes Bennett (Edinburgh)." He said that such a Committee might be able, it was to be hoped, to give powerful aid to the Poor-law medical officers of Great Britain and Ireland, and would always be happy to act in concert with and aid of any independent organisations which it might be thought right to originate, and such as now existed with excellent effect in both kingdoms.

Dr. SIBSON seconded the motion, which was carried.

The Fifth General Meeting was held at 2 P.M.

The Address in Medicine was delivered by Dr. GULL. (See p. 131 of last week's JOURNAL).

The meeting was prolonged, in order to permit of the address being finished before the sections were opened.

Mr. PAGET (London) proposed—"That the cordial thanks of the meeting be given to Dr. Gull for his valuable address." Dr. Gull, he said, had given the audience that brilliant essay as the result of his experience in what might be pronounced as his excessive overwork, rather than as work. How much Dr. Gull had thought out and striven to solve would be more plainly still before the Association when the essay they had heard came before them in a readable form; and the profession would be then more grateful still to Dr. Gull for so placing these results of his labours before them. [*Cheers.*]

Dr. RADCLYFFE HALL (Torquay) seconded the motion, and said he looked upon the vote as a second vote, the audience having given one by their deep attention.

After a few words from the President, the vote was agreed to with acclamation.

The Dinner.—The annual dinner of the Association was held in the Hall of Christ Church, where covers were laid for between two and three hundred gentlemen. Even these were not sufficient; for thirty or forty gentlemen, who came late, could not find room at the tables. The President occupied the chair, and was surrounded by the Vice-Chancellor, the Rev. Dr. Jelf, and other of the university authorities, by the foreign visitors, and by the officers of the Association. The Vice-Chancellor received a most cordial greeting at the hands of the Association, in acknowledgment of the kindness which the authorities generally have shown to the members. Eloquent speeches were made by the President, by the President of the Council, by Mr. Paget, and by Professor Rolleston; and, in the course of the proceedings, the healths of the gentlemen who had taken an active part in the proceedings were given and received with cordiality. Professor Gross, in speaking for the foreign visitors, gave the Association a cordial invitation to send delegates to the American Medical Association, and assured the meeting that such a delegation would be attended with the best professional and national benefits. The President, Dr. Falconer (Treasurer), the Editor of the JOURNAL, Mr. E. Chapman and the other Local Secretaries, Mr. Watkin Williams (General Secretary), and other gentlemen, were toasted, and the proceedings closed at about midnight.

FRIDAY, AUGUST 7th.

The Sixth General Meeting was held on Friday morning, in the Divinity School.

The Action of Mercury.—Dr. HUGHES BENNETT, who was called upon to open the debate on the Mercury Report, summarised shortly the results which to his mind were attained by the investigations. He said that medical men had gone on using mercury as a cholagogue, not because their own experience taught them to use it, but because they had been taught in the schools to do so. Mercury was found in the *Pharmacopœia*, because it had been copied from one to the other. However, it was not his duty to go into and explain medical practice; but he had given the results of the investigations, which plainly proved that mercury did not increase the flow of bile, but almost always diminished it. This had been proved by experiment on dog after dog; and, if the meeting would like any other experiments carried out, the Committee were quite willing to go into those experiments. He held that medicine was capable of being brought under the dominion of experiment; and he could not understand why anything in medicine could not be treated as other problems in science. The Association could appoint committees to investigate problems in medicine; and, in making this investigation, the Association had commenced a course which could be most advantageously followed out. This Committee had given much attention to the subject brought before them, and he for one confessed that the result of the investigation had convinced him that the profession had been labouring under a delusion with regard to this drug. He was brought up to regard this drug as one which acted as others supposed it acted, and he was now brought to view this as a mistake. He desired to say that he thought it would be a great work for the Association to take up one remedy after another, and to see by experiments how they acted upon the constitution.

Mr. MEADE (Bradford) said he should not allow himself to be satisfied as to the action of mercury by the result of the experiment upon dogs, and he should like to see experiments on other animals, as herbivorous animals. He proceeded to say experience proved that by the action of mercury the flow of bile was increased in persons when they were in a condition of passing white stools.

Dr. WATERS (Chester) said that the dog was like man in his food, but the herbivorous animal or donkey was not; and the cause of the dog's white fæces was owing to his eating bones and passing mineral matter. He suggested that large doses should not be given, if other experiments were made, which he hoped would be done; and he made this suggestion, because he thought the doses of corrosive sublimate given before were too large.

Dr. STOKES considered that the Committee had done their best so far as the experiments on the dog have gone, and he did not think anything would be gained by having further experiments on dogs when the results were so clear, that mercury did not increase the flow of bile in the dog. Dr. Bennett had arrived at the opinion that the experiments proved that mercury should not be used on man; but this was not clear to his (Dr. Stokes's) mind. He suggested that the investigation as to the use of the drug should be made on the human frame.

Dr. SIBSON said the suggestion of Dr. Stokes was important; but, still in his opinion, more could be obtained yet by experiment on the dog, as he thought the doses given previously were too large. In fact, one dog was cured of his disease, but died of the mercury. He trusted the experiments would be continued.

Dr. H. KENNEDY (Dublin) thought too much attention was given to the quantity of bile to the neglect of its condition when it came from the dog. He held that dogs were very susceptible of the action of mercury.

Dr. HEATON suggested that a pig should be the subject of experiment.

Dr. BROADBENT (London) accepted the result of the experiments on dogs, and thought they should be extended to man. He thought it not unlikely that it would be found that the mercury did not act upon the liver.

The PRESIDENT said he should be satisfied with Dr. Bennett's conclusions so far as they went with respect to the experiments on dogs; but if he said that mercury was of no use to him (the President) because it did not act on the liver of dogs, all he could say was that this was a most dangerous doctrine, and illogical conclusion. He could not get over the fact that, when he had a miserable headache, a small dose of blue pill would make him perfectly comfortable in a few hours. [*Hear.*] Mercury was useful to him, and he could not go so far as to say that its use should be discarded by the whole profession on one series of experiments. There was another point: the results of experiments upon a sick person rather than upon a healthy one should be taken. [*Hear.*]

Dr. BENNETT shortly replied, and said that the Committee were quite willing to go into any experiments which the Association chose.

The question was then remitted to the General Council.

The members then adjourned to the Sections.

The Seventh and concluding General Meeting was held in the Divinity School, on Friday afternoon.

Election of the General Council.—Dr. W. ROBERTS (Manchester) brought up the following report from the Committee appointed to consider the mode of electing the General Council.

"The Committee met on Friday morning, August 7th. Present, Dr. Sibson, Dr. Gairdner, and Dr. Roberts, with Dr. Falconer, *ex officio.*

"After discussion, it was unanimously agreed as follows:—

"1. That the Committee of Council be empowered to propose to the first General Meeting, at each Annual Meeting, a list of persons to serve on the Council for the ensuing year from among the members who do not reside in localities where branches exist.

"2. That the number of persons so proposed shall be in the proportion, as nearly as possible, of one to every twenty such members.

"3. That it be permitted to members residing in localities where no branches exist to nominate (if they so choose) representatives to serve in the Council in the proportion of one to twenty of their number, in which case the Committee of Council shall not nominate for such locality."

A short discussion ensued, and it was shown that the regulation would apply to Scotland and Ireland rather than to England.

Dr. ROBERTS proposed, Dr. GAIRDNER seconded, and it was resolved—"That the report be adopted, and referred to the Committee of Council for execution."

The Collection of Subscriptions.—The Rev. Dr. BELL brought up the report of the Committee on this subject. The suggestions were as follows.

"Your Committee are sensible that the Treasurer's accounts are so admirably arranged as not to require any suggestion. They beg to recommend:

"Tthat, in future, receipts for the annual subscriptions of the Parent Association be given on a form of printed receipt issued by the General Treasurer.

"That the moneys received by the General Secretary from the local secretaries on account of such subscriptions, be paid *direct* into the General Treasurer's banking account.

"Your Committee would further recommend that the counterfoils of the receipts upon all such annual subscriptions be included in the audit.

"And that the auditors should have before them the means of ascertaining the greatest number of JOURNALS issued during the year, as well to members who have paid their subscriptions as to those who are in arrears. DAVID BELL, M.D., *Chairman.*

"SEPTIMUS GIBBON, *Secretary.*

"Oxford, August 7th, 1868."

The Rev. Dr. Bell moved, and Dr. S. Gibbon seconded, the adoption of the Report.

After some conversation,

Dr. Farr (London) moved as an amendment—"That the Report of the Committee, and Dr. Bell's resolution, be referred to the Committee of Council, with a view to consider and, if it appear practicable, to carry it out."

The Rev. Dr. Bell said he was quite willing to withdraw his motion in favour of the amendment, as he was sure the Committee of Council would adopt his proposal.

The amendment, having thus become a substantive resolution, was adopted.

Votes of Thanks.—Dr. Farr warmly eulogised the addresses which had been given, and said he had never heard more brilliant expositions on several subjects than had been given at this meeting. He proposed a vote of thanks to those who had given addresses, and who had presented papers.

The vote having been agreed to with acclamation,

The President said he had never attended any proceedings which, in the retrospect, gave him so much pleasure as this meeting gave him.

Dr. Stewart said it was right that the Council should consider the advisability of sending over delegates to America; and he proposed that the Council take this question into consideration.

Dr. Farr moved, Dr. Burke seconded, and it was unanimously resolved—"That the Association express its grateful acknowledgments to the distinguished visitors who have come as representatives from the American Medical Association, and instruct the Committee of Council to appoint a deputation to attend the next meeting of the American Medical Association, and there reciprocate the cordial feelings expressed by Professor Gross."

The motion was carried unanimously.

Dr. Sibson proposed—"That the cordial thanks of the meeting be given to the Reverend the Vice-Chancellor, the Dean and Governors of Christ Church, the Heads of Colleges, and other members of the University, who have promoted the objects of the meeting."

Mr. Dyke (Merthyr Tydfil) seconded the motion, which was agreed to with cheers.

Mr. Flint (Stockport) proposed, Mr. Jones (Birmingham) seconded, and it was unanimously resolved—"That the thanks of the meeting be given to the Mayor of Oxford for his kindness in granting the use of the Council Chamber for a Reception-room."

Dr. Stewart drew attention to the great amount of work which had been done by the local secretaries, Drs. Gray and Tuckwell and Mr. E. Chapman, and the local treasurer, Dr. Freeborn. Without the aid of those gentlemen, the Association would have been powerless to accomplish all it had accomplished in the last few days. If thanks were due to the professional gentlemen, they were still more due to Mr. E. Chapman, to whom more was owing than could be expressed. [*Hear and cheers.*] He proposed—"That the cordial thanks of this meeting be given to Dr. Freeborn, Treasurer, and to Dr. Gray, Dr. Tuckwell, and Mr. Chapman, Honorary Local Secretaries, for their very valuable services."

The resolution was passed unanimously.

The President said he must say that a debt had been incurred by him to those gentlemen which would last his life-time. It was kind indeed to have the assistance of the professional gentlemen; but in Mr. Chapman they had a gentlemen who was not connected before with the profession, but who had given himself up entirely to the service of the Association during the last three days. [*Cheers.*]

Dr. Stokes moved—"That the special thanks of the meeting be given to Mr. Hart for his unremitting and valuable labours in the editorship of the Journal." He said that it was quite unnecessary to supplement the proposal by any words, for Mr. Hart's unremitting labours both on behalf of the Association and for society at large had been generally acknowledged. [*Hear.*]

Mr. Flint seconded the resolution, which was supported by Dr. Webster, and carried unanimously.

Mr. Ernest Hart acknowledged the vote, and said he accepted it with very deep peculiar pleasure. He had accepted the office of editor of the Journal entirely as a matter of public trust and responsibility, with a desire to serve the Association, and, as the Association represented the profession, to serve the profession. He had, at much sacrifice of time and comfort, endeavoured to serve the cause they had at heart, and the only reward he could have was the enjoyment of their confidence. He did not for a moment suppose that in a large Association such as this there were not some who saw faults, or thought they saw faults, in the conduct of the Journal; indeed it would be strange if the constituency, numbering nearly 4,000 of the profession, could be brought to agree that there were no sins of omission and commission. It could not be but that such should exist. But he felt that he could fairly claim the generous support of the Association. [*Hear*]. If he had carried out all the suggestions he had received, the result would be remarkable. [*A laugh*]. No part of the Journal would remain unaltered. One desired that the paper should be made up of extracted foreign matter; another that hospital reports, another that all leading articles, and another that the advertisements should be omitted. [*A laugh*]. He was well pleased to receive suggestions, but it was not always that they could be acted on. He had received many hundreds of congratulatory letters; he begged to thank their friendly authors, and to express his obligation to this meeting for their appreciation of his labours.

Secondary Education.—A petition to the Houses of Parliament on the subject of Secondary Education was adopted, and ordered to be signed by the President in the name of the Association.

Dr. Stokes moved—"That the warmest acknowledgments of the gentlemen of the Association are due, and are hereby given, to the President for the great services rendered by him to the Association.

Vote of Thanks to the President.—The chair having been taken by Dr. Sibson, Dr. Stokes said he had now to speak regarding the President, and felt it would be the more grateful to Professor Acland if his personal qualities were passed over, particularly by one who had, as he (Dr. Stokes) had, enjoyed the precious gift of his friendship [*cheers*]. The motion which he (the speaker) had the honour and pleasure of moving, as the closing act of the meeting, was—"That the warmest acknowledgments of gratitude are due, and are hereby given, to the President, for the great services rendered by him to the Association." [*Cheers.*]

Dr. Gairdner seconded the motion in a few eloquent sentences; and on being put by Dr. Sibson, it was carried amid acclamation.

The President, in acknowledging the vote, said there were certain landing places in a man's life where he had to pause and think. This seemed to him to be one of those landing places in his life, by his being permitted to take a part in a very important gathering. All who had come there had felt that they had met an unusual number of admirable men, whose example he, for one, would like to follow in act and spirit. He cordially thanked them for the vote they had passed, but as a matter of fact, he considered his thanks were due to them instead of theirs to him. [*Applause.*] He had now learnt the value of professional intercourse, and he was considering how, for the rest of his term of life, he could be of service to this Association. [*Cheers.*] In conclusion, he again thanked them for the vote which had been so kindly proposed, seconded, and carried, in acknowledgment of the attempt he had made to fill the high and distinguished office to which they elected him, and which he had felt it a great honour to fill.

The following names of members and visitors were entered—most of them—in the book provided for the purpose; and were also printed in a list which was placed in the reception-room at the disposal of members.

Acland, H. W., M.D., F.R.S., Oxford
Adams, M. A., Esq., Maidstone
Adams, R., M.D., Dublin
Adams, W. Esq., London
Adams, W. Esq., London
Alford, Stephen S. Esq., London
Allbutt, T. C., M.D., Leeds
Allen, J. Esq., Norwich
Allen, T. Esq., Oxford
Althaus, J., M.D., London
Anderton, H., M.D., Birkenhead
Andrew, J., M.D., London
Anstie, F. E., M.D., London
Anstie, T. B., Esq., Devizes
Arlidge, J. F., M.D., Newcastle-under-Lyme
Armstrong, L., Esq., South Shields
Baker, J. A., Esq., Dublin
Baker, J. W., Esq., Derby
Baker, R. L.. Esq., Leamington
Balding, D. B., Esq., Royston
Ballard, E., M.D., Islington
Ballard, T. M.D., London
Banks, J. T., M.D., Dublin
Barford, J. G., Esq., Wokingham
Barker, F., M.D., New York
Barker, J., Esq., Coleshill
Barnes, R., M.D., London
Barrett, T., M.D., Bath
Barry, D. P., M.D., Twickenham
Barter, C. S., Esq., Bath
Bartleet, E., Esq., Chipping Campden
Bartrum, J. S., Esq., Bath
Bassett, J. Esq , Birmingham
Bateman, F., M.D., Norwich
Batt, A., M.D., Witney
Beale, L. S., M.B., F.R.S., London
Beales, R., M.D., Congleton
Beatty, T. E., M.D., Dublin
Beatty, W. C., M.D., Weston-super-mare
Beckingsale, J. E., Esq. Newport
Beddoe, J., M.D., Clifton
Beddoes, W. M., M.D., Shrewsbury
Beecroft, S., Esq., Manchester
Begley, W. C., M.D., Hanwell
Bell, Rev. D., M.D., Goole
Bellot, W. H., M.D., Leamington-Priors
Bennett, J. Hughes, M.D., Edinburgh
Bennett, J. R., M.D., London
Bindley, S. A., Esq., Birmingham
Birkett, J., Esq., London
Bishop, E., Esq., Culworth
Blaikie, R., Esq., Oswestry
Blandford, G. F., M.D., London.
Bodington, G. F., M.R.C.P , Sutton Coldfield.
Bonnall, Dr., Nice.
Borough, F., Esq., Derby
Boycott, T., M.D., London
Bracey, A., Esq., Birmingham
Bracey, C. J., M.D., Birmingham
Bradbury, T. B., M.B., Cambridge
Braidwood, P. W., Esq., Birkenhead
Brett, A. T., M.D., Watford
Bridges, J., M.D., Bradford
Bright, J. M., M.D., Forest Hill
Broadbent, S. W., Esq., South Heiton
Broadbent, W. H., M.D., London
Bromfield, J., Esq., Whitchurch
Bryan, J. M., M.D., Northampton
Bryant, T. Esq., London
Burd, E., M.D., Shrewsbury
Burke, W. M., Esq., Dublin
Burrows, J. C., Esq., Brighton
Buzzard, T., M.D., London
Campbell, J. A., M.D. Carlisle

Camps, W., M.D., London
Carden, H. D., Esq., Worcester
Carson, Rev. W., M.D., Cashel
Carter, T. A., M.D., Leamington
Carus, Professor Victor, Leipsic
Ceely, R., Esq., Aylesbury
Chadwick, C., M.D., Leeds
Chadwick, E., Esq., C.B., Richmond
Chambers, T., Esq., London
Chambers, T. K., M.D., London
Charlton, E., M.D., Newcastle-upon-Tyne
Cheatle, T. H., Esq., Burford
Chiene, J., M.D., Edinburgh
Cholmeley, W., M.D., London
Church, W. J., Esq., Bath
Church, W. S., M.B., London
Clapham, J., Esq., Thorney
Clark, T., Esq., Clifton
Clarke, H. D., Esq., Ferry Hill
Clarke, J., M.D., Walsall
Clarke, Lockhart, F.K.Q.C.P., London
Clarke, W. Michell, Esq., Clifton
Clarke, W. F., Esq., London
Clayton, M. H., Esq., Birmingham
Clover, J. T., Esq., London
Cockey, E., Esq., Frome
Coe, R. W., Esq., Bristol
Collins, C. H., Esq., Chew Magna
Collis, M. H. M. B., Dublin
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MAGENDIE AND BELL.

SIR,—The last number of your JOURNAL contains the Report of a Paper by Dr. McDonnell, read before the Physiological Section of the British Medical Association, entitled, "On the Relative Claims of Bell and Magendie to the Merit of having discovered the Functions of the Roots of the Spinal Nerves." The judgment pronounced by him in the name, as he says, of truth and justice, is against Bell and in favour of Magendie. His statement is, that, before Magendie published the account of his experiments on the spinal nerves (August, 1822), Bell had given no other description of those which he had performed but what was contained in his pamphlet of 1811, printed for circulation among his friends; he adds, that in this pamphlet there was absolutely nothing which in fairness could be supposed to indicate a knowledge of the true functions of the nerve-roots; accordingly, he assigns to Magendie, and experimental physiology, the merit of having discovered this fundamental fact in physiology.

Dr. McDonnell would have proved himself a wiser judge in this vexed question, if he had taken ordinary trouble to acquaint himself with the original writings of those immediately interested in the controversy. What has he done? He has constituted himself umpire in this debated subject; and has handed over to a Frenchman the honour of discoveries which signalise the present age: yet he has displayed utter ignorance of the publications of a countryman, which entirely annihilate the claims of the foreigner. Dr. McDonnell has nowhere in his paper noticed the works of Mr. John Shaw. Yet, three long months before M. Magendie came forward as an original experimentalist, by publishing the memoir to which Dr. McDonnell refers, Mr. Shaw had published a full and accurate account of a series of experiments on the roots of the spinal nerves, which had been performed by Sir Charles Bell and himself conjointly. The paper which contained this description was read before the Medico-Chirurgical Society on the 30th April 1822, and was afterwards published in the Society's *Transactions.* The conclusions announced in it regarding the functions of the respective roots of the spinal nerves were perfectly correct, according to our present knowledge; the anterior roots were stated to be endowed with motor power, and the posterior with sensation.

Now in every point of view, apart from the merit of priority belonging to it, the account of the experiments and their results given by Mr. Shaw infinitely surpassed in value that given by M. Magendie. The experiments which Mr. Shaw related, he represented as of old date—having been originally performed thirteen years before—he also stated that they had been often repeated, and always with the same results. M. Magendie's experiments were recent; and had not been put to the test of repetition. Again, the most important feature in Mr. Shaw's account was wanting in M. Magendie's. To confirm the statement, that each root was appropriated to a single function; namely, the anterior to motor power exclusively, and the posterior to sensation exclusively, Mr. Shaw adduced the examples of the portio-dura, and the fifth; he showed that the former nerve, in correspondence with its arising from the brain by a single root, was confined to the office of controlling the muscles, and could not bestow sensation, while as the fifth, on the other hand, came off by two distinct roots, just as the spinal nerves do from the spinal cord, it could give motor power by one, and sensation by the other root. M. Magendie made no pretension of knowing anything, from his own researches, of these two important examples of the distinction between nerves of motion and sensation; he brought forward no corroborative proofs of the correctness of his conclusions from the experiments: they were bare, isolated, and unsupported. Lastly, the title which Mr. Shaw's paper bore, "On Partial Paralysis," showed that the subject had advanced from the region of physiology into the domain of pathology. The particular object of bringing forward the experiments on the roots of the spinal nerves, was to solve the interesting pathological problem—"Why Sensation should remain entire in a limb, when all Voluntary Power over the action of its Muscles is lost; or why Muscular Power should remain, when Feeling is gone?" In M. Magendie's Paper, we look in vain for any question of that sort.

I might conclude here, but an expression in Dr. McDonnell's suggests another remark. When he assigns to M. Magendie the discovery of what he terms the fundamental fact in physiology, namely, the distinct functions of the roots of the spinal nerves, he seems to consider the event as a triumph of *experimental physiology.* The characteristic and distinguishing doctrine of the professors of that school is, that, before proceeding to perform an experiment, it is an essential condition, that the mind of the operator should be entirely free from all preconceived ideas of what is likely to happen from the experiment. But, I ask, was M. Magendie's mind in that orthodox state when he performed his experiments on the roots of the spinal nerves? Although repeatedly recorded, the fact does not appear to be known by Dr. McDonnell, that, in the Autumn of 1821, Mr. Shaw had been in personal communication, during a visit to Paris, with M. Magendie; that Mr. Shaw furnished him with various papers which treated of the recent discoveries, among others, with a work of his own containing a diagram that illustrated the common characters of the spinal nerves and fifth; and that, finally, in order to convince M. Magendie that the nerves of motion were distinct from the nerves of sensation, he performed before him the crucial experiments on the portio dura and fifth pair.—I am, etc.,

ALEXANDER SHAW.

HEAT-APNŒA AND SUN-STROKE.

SIR,—Having seen twenty-seven cases of heat appoplexy or apnœa in India during the mutiny, and two cases of sun-stroke in England (the last this afternoon), I am tempted to make a few remarks on Professor Johnsons' extremely clear and interesting paper on that subject, in your issue of August 1.

I agree entirely with all Dr. Johnson says regarding Heat-apnœa, except that the superheating of the blood is the sole cause of the congestion of the lungs. I think, from what I saw of the disease, that the congestion is increased, if not caused, by a disturbance of the balance between the action of the heart and lungs. The effect of extreme heat is to accelerate the pulse and decrease the frequency of respiration; and, as Marshall Hall proved in his work on drowning, apnœa depends for rapidity of its fatality on the ratio of the circulation to the respiration.

I suppose that the heart keeps drawing fresh blood to the lungs, farther than they can aërate it, (the rarity of the heated air diminishing the oxygen and adding to the trouble), its own action becoming at the same time feebler and feebler, until at last it stops overpowered. This will alone to my mind, account for the most usual time for the attack in India being soon after midnight; it seldom occurring when the men are moving about. I did not see one case actually on the march or during an engagement, which took place at noon in the hot weather. I believe there is another disease not unlike this in some of its symptoms, but differing in other very important points, and it is this which we alone see in England, and is properly called sunstroke.

In heat-apnœa, as Dr. Johnson points out, you get "great heat, dryness and redness of the skin, giddiness, nausea, congestion of the eyes, and frequent desire to micturate, the pupils are contracted, the breathing is hurried and laborious, the heart's action is tumultuous, the pulse rapid and soon irregular." To this I would add, it is always preceded by sleeplessness. But in sun-stroke, you often get, as I did in my case today, cold sweat, and pallor of the eyes and skin, dilated and often irregular pupils, slow respiration, and compressible steady pulse (in my case to-day it was 75); and such cases usually take place during violent exertion in the middle of the day, under a bright sun, and are preceded by no marked premonitory symptoms. As to the treatment, I agree to all Dr. Johnson says for the treatment of heat-apnœa; but would add that the sheet-anchor in such cases, if you can get hold of them before coma or convulsions have come on, is opium. I tried it over and over again, and found it answer in a most marvellous manner. At first I gave it cautiously, and not before the bowels had been cleared and not when the skin was dry and burning, but I soon learnt it might be given with advantage whenever they had want of sleep for several nights, and the patient complained of a sense of weight at the epigastrium, the pulse being rapid and the breathing laboured.

The first stage of the disease depending upon over irritation of the great nervous centres, as shewn by the sleeplessness and rapid pulse; the great point is to obtain sleep at all hazards, and this can but be done with opium. But in true sun-stroke, on the contrary, you want to stimulate the great nervous centres, and here you must give brandy, and apply heat and sinapisms, if necessary, to the feet and legs.

In conclusion I may remark, that I believe heat-apoplexy never occurs except where the temperature remains for several days above 100 deg. Fahrenheit, but sun-stroke occurs where there is a sudden rise in the temperature, and the person is exposed to the direct rays of the sun.

I am, etc., E. M. WRENCH.

Park Lodge, Baslow, near Chatsworth, August 1868.

THE ANNUAL MUSEUM.

SIR,—As an exhibitor in the Annual Museum at the Oxford Meeting of the British Medical Association, allow me publicly to express my thanks to Mr. Jonathan Hutchinson for the hint which has added another pleasing feature to our yearly gathering; and also to Dr. Gray, of Oxford, for the zealous and indefatigable way in which he co-operated with Mr. Hutchinson, in carrying out the undertaking; a third gentleman, whose name I did not learn, was also very active and obliging.

On the whole, the arrangements were good; everything shown was well placed and could be seen and thoroughly examined. No doubt next year much will be done in the ways of improving and perfecting, but I am convinced, that on no future occasion can the officials exhibit more courtesy, or manifest a more complete goodwill and heartiness, than at the never to be forgotten inaugurative exhibition of the present year.

I am, etc., VINCENT JACKSON.

Wolverhampton, August 1868.

VOLUNTEER MEDICAL ARRANGEMENTS.

SIR,—In the JOURNAL of Saturday last, there is an article headed "The medical arrangements at Shoeburyness," which I should not have considered it necessary to notice, but for its great inaccuracy. As I was appointed by the Council of the National Artillery Association to the post of surgeon to the meeting at Shoeburyness, and as I know from the best authority, that the name of Staff-Surgeon Thompson was never brought before them, the inference that I "assumed the charge of the medical arrangements in consequence of his absence" is simply untrue.

It is also stated that there was "no regular hospital, and that serious cases had to be sent to the garrison hospital, where by the courtesy of the army medical officers they still remain under the care of the volunteer surgeons."

This statement is untrue in every particular, and it is a great pity that you should have been so misinformed.

There was a regular hospital tent, to which all serious cases, *had there been any*, would have been sent; and I certainly never saw or heard of an army medical officer during my stay in the camp. I am glad to say that the cases of illness were none of them very serious, and that there were no accidents of any importance

I am, etc., FRED. TICEHURST,
Surgeon 4th Cinque Port Artillery Volunteers.

Hastings, August 11th, 1868.

TREATMENT OF SUN-STROKE.

SIR,—In your JOURNAL of 1st August, page 103, Dr. George Johnson, writing on the Pathology and Treatment of Sun-stroke, remarks: —"Dr. Morehead recommends venesection in the early stages of the attack, while Dr. Maclean condemns the practice." It is well that on a question of treatment of a grave disease, there should be no misunderstanding. At page 620 of the second edition of my *Clinical Researches*, it is observed, "in the medical treatment of sun-stroke there is now great unanimity of opinion; and the conclusions so generally admitted are in accordance with the views entertained of the pathology and etiology of the disease. General blood-letting has few supporters. Though it may be admitted that an occasional case occurs in which cautious venesection might be useful, yet the evidence of the great injury usually resulting from it is so conclusive, that there should be no hesitation in altogether interdicting this proceeding in the treatment of sun-stroke."

Dr. Johnson's misapprehension has doubtless arisen from his referring to the first edition of the *Clinical Researches*,—in which sun-stroke is described briefly and not very methodically—but even there venesection is countenanced only when the skin is hot and pungent and the pulse is full and firm; and is condemned when the pulse begins to fail in strength, a change always coincident, in this disease, with commencing coma.

The Indian mutiny intervened between the two editions of my work, and I was therefore in the second enabled to embody much of the information acquired of this disease during that period of undue and unnatural exposure of our troops. The idea that over heating of the blood (first, I believe, suggested at p. 585, vol. 2nd., of the first edition of my *Researches*, and repeated p. 615 and 617, second edition) as an influential proximate cause of sun-stroke, seems now to be generally accepted; but I am desirous of pointing out that it has been applied by me only to the cerebro-spinal and mixed forms of the disease.

If the distinction between the cerebro-spinal and cardiac varieties of sun-stroke is not clearly appreciated and kept in view, we may look for much confusion in the etiology, pathology, and treatment of the most serious affections. I am, etc., C. MOREHEAD, M.D.

1, Clarendon Crescent, Edinburgh, August 1868.

THE ELECTRICAL COMMITTEE OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

SIR,—As a member of the Electrical Committee of the Royal Medical and Chirurgical Society, may I be permitted to suggest that the London correspondent to the *Indian Medical Gazette* should at least have given his own name, when preferring so grave a charge of ignorance against the member of the committee in question, as that contained in your JOURNAL of the 1st of August. Pending such announcement, the London correspondent cannot feel aggrieved if I for one think that he may have been drawing on his imagination for facts. May I also be allowed to state, that there is an efficient electrical room, and an equally efficient gymnastic apparatus at the Infirmary for Epilepsy and Paralysis, Charles Street, Portman Square.

The summary to which you refer on electro-therapeutics, is good evidence of the qualification of its author to write on so interesting a subject with authority; and although many of the committee may not have required such preliminary education, no one can have read the three successive letters without advantage. I am, etc., EDWD. MERYON.

OBITUARY.

WILLIAM MACKENZIE, M.D.,
GLASGOW.

THE famous oculist of Scotland died at a ripe age last week. Dr. Mackenzie became a licentiate of the Faculty of Physicians and Surgeons of Glasgow in 1815, and subsequently Member of the Royal College of Surgeons of England in 1818, and Honorary Fellow in 1843. He early manifested a deep interest in ophthalmic studies, which he pursued with enthusiasm, both at home and abroad. His famous treatise on *Diseases of the Eye* attained an European reputation, and has even recently been translated and re-issued with extensive additions by Warlomant and Giraud-Teulon. His *Physiology of Vision* was a work of considerable labour, but less happy in its influence on ophthalmic science. He held the honourable appointments of Waltonian Lecturer in the University of Glasgow, and of Surgeon-Oculist in Scotland to the Queen. For some years, he edited the *Glasgow Medical Journal*; and throughout a long life pursued with vigour, ability, and usefulness, his favourite branch of surgery. Dr. Mackenzie had long retired from regular duty at the Glasgow Eye Infirmary, but continued to act as a consultant. His name will be remembered among the surgical worthies of Scotland.

THOMAS ELD BAKER, ESQ.

ON July 23rd, died Thomas Eld Baker, Esq., at his residence, 76, Porchester Terrace, Hyde Park. He was born at Margate in 1791. In 1811, he entered as student at St. George's Hospital, under the auspices of Sir Everard Home, and attended the lectures of Brodie, Pearson, Joshua Brookes, and others. In 1813, he obtained the diploma of the Royal College of Surgeons, and the year following an appointment to Bengal. He served two campaigns in the Nepaul war; was Garrison Surgeon at Buxar in 1819; and Surgeon to the 10th Light Cavalry in 1825. By his benevolent and considerate tolerance of their prejudices (a rare qualification in those days), he won the entire confidence and regard of the natives wherever his influence extended. Amongst other literary productions, he wrote an essay on the *Art of Preserving Health in India*, which was circulated by authority.

He returned home in the year 1838, and retired from professional life, devoting himself henceforth, both publicly and privately, with his characteristic philanthropy, energy, and untiring industry, to the welfare of his fellow men, becoming a Magistrate for Middlesex, Treasurer of the Royal Humane Society, and holding various offices in the parish of St. Pancras.

It was whilst in the discharge of his magisterial duties during the Fenian disturbances and Clerkenwell explosion in December last, that his seriously declining state of health became manifest to himself and his medical advisers; his malady assuming the form of climacteric disease, under which he gradually sunk, apparently without any great suffering. A true Christian, death for him had no terrors; and thus, conscious to the last, and affectionately regardful to the last of the welfare of those around him, after a life of exceeding usefulness, at the mature age of 77, passed away a high minded English gentleman, deeply regretted by his sorrowing family and a wide circle of friends.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS.

For the week from August 5th to 11th (both inclusive).

Taken at Kew, by Dr. TREUTLER, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.886
Highest reading of do. (corrected and reduced), on 9th, at 10 A.M.	30.191
Lowest ditto Ditto on 11th, at 2 P.M.	29.590
Range of pressure during the week	00.601
Mean temperature of air in shade	71.0
Mean temperature of evaporation	65.4
Mean temperature of dew-point	61.1
Mean degree of humidity (saturation=100)	70.6
Mean maximum temperature of the week	80.1
Mean minimum temperature of the week	59.9
Calculated mean temperature of the week	70.0
Maximum temperature in shade, on 5th	87.7
Minimum temperature (protected), on 8th	55.9
Minimum temperature (exposed on grass), on 9th	47.5
Range of temperature during week	40.2
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 5th	145.5
Mean amount of clouds (0—10)	6.2
Total rainfall (which fell on 6th, 7th, and 11th)	0.62 inch
Mean amount of ozone (0—10)	3.4

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	0	0	2	0	5	0	0	0	3.4
2 P.M.	0	0	0	1	1	4	1	0	0	3.7
10 P.M.	0	0	0	0	0	3	2	0	2	1.9

Mean force of wind (0—12) 3.0

The weather of the week has been somewhat changeable. Temperature has been high, but more uniform than during the preceding two weeks. The barometer, which was falling at the end of last week, attained its lowest on the 7th, at 10 A.M., being 29.684. It then rapidly rose, reaching its highest on the 9th, at 10 A.M., the reading (not corrected for elevation) being 30.173. Falling again as rapidly, it reached the lowest reading of the week (not corrected for elevation), at 2 P.M., on the 11th; viz., 29.583. Winds have been moderate, and almost wholly from S.W. The general health is satisfactory.

Kew, August 12th, 1868.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows, held on Monday, August 10th, 1868, the following members of the College were duly admitted Fellows of the same.

Heaton, John Deakin, M.D.Lond., Claremont, Leeds
Jackson, John Hughlings, M.D.St. Andrew's, 28, Bedford Place, Russell Square
Morgan, John Edward, M.D.Oxon., St. Peter's Square, Manchester
Moxon, Walter, M.D.Lond., 6, Finsbury Circus
Ogle, William, M.D.Cantab., Derby
Robertson, Charles Alexander Lockhart, M.D.Cantab., County Asylum, Hayward's Heath
Thompson, E. Symes, M.D.Lond., 3, Upper George Street, Portman Square
Thompson, Reginald Edward, M.D.Cantab., 21, South Street, Park Lane
Tuke, Thomas Harrington, M.D.St. Andrew's, Manor House, Chiswick

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APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 6th, 1868.

Abrath, Gustavus Adolphus, Sunderland
Aldrich, Frederick Edward, Mildenhall, Suffolk
Allbutt, Henry Arthur, Leeds
Marsh, John Wilford, Wickhambrook
Milligan, William, Buxton
Rawlings, William Henry, Camelford
Sewell, Allen, Twickenham
Stephens, Richard Frederick, Penryn, Cornwall

At the same Court, the following passed the first examination.

Atkins, Francis Day, Guy's Hospital
Bower, Augst. Edward, King's College Hospital
Clark, Andrew, University College Hospital
Cotterill, Alfred, King's College Hospital
Etheredge, George Ernest F., St. Bartholomew's Hospital
Gibbings, Alfred Thomas, King's College Hospital
Hobley, Simon Halford, King's College Hospital
Lloyd, William Howell, Guy's Hospital
Prigg, Frederick, St. George's Hospital
Simon, Arthur Charles, St. Bartholomew's Hospital
Wearne, Walter, Westminster Hospital

MEDICAL VACANCIES.

THE following vacancies are declared:—

ANDERSON'S UNIVERSITY, Glasgow—Professor of Medical Jurisprudence.
BANDON UNION, co. Cork—Medical Officer for the Templemartin Dispensary District.
BARRA, Inverness-shire—Parochial Medical Officer.
BARTON-ON-IRWELL UNION—Medical Officer for the Stretford District.
CORK UNION—Junior Medical Officer, Cork Dispensary District.
DEVON COUNTY LUNATIC ASYLUM, Exminster—Assistant Medical Officer.
GLOUCESTER COUNTY ASYLUM, near Gloucester—Junior Assistant Medical Officer.
HOSPITAL FOR SKIN-DISEASES—Surgeon; Assistant-Surgeon.
LEEDS PUBLIC DISPENSARY—Resident Medical Officer.
LOCHBROOM, co. Ross and Cromarty—Parochial Medical Officer.
LONDON HOSPITAL—Assistant-Physician; Assistant-Surgeon.
MACCLESFIELD DISPENSARY—House-Surgeon.
MONAGHAN COUNTY INFIRMARY—Apothecary and Registrar.
NEWCASTLE UNION, co. Limerick—Medical Officer for the Workhouse and Fever Hospital.
NEWMARKET UNION—Medical Officer for Isleham District.
ROYAL KENT DISPENSARY—Two Medical Officers for Greenwich.
ST. GEORGE'S HOSPITAL—Lecturer on Botany.
ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street—Surgeon.
ST. MARY'S HOSPITAL MEDICAL SCHOOL—Lecturer on Chemistry and Practical Chemistry.
STAFFORDSHIRE GENERAL INFIRMARY, Stafford—House-Surgeon and Secretary.
TRINITY COLLEGE, Glenalmond—Resident Medical Officer.
WESTMINSTER GENERAL DISPENSARY—Resident Medical Officer.

MEDICAL APPOINTMENTS.

GLASCOTT, Charles E., M.B., C.M., late Resident Surgeon Edinburgh Royal Infirmary, appointed House-Surgeon to the Royal Eye Hospital, Manchester.

HOGG, C. H. Jenner, Esq., appointed Resident Medical Officer to the Children's Hospital, Birmingham, in the place of Horatio Wood, Esq., resigned.

MARRIAGES.

*FREEMAN, Henry W., L.R.C.P.Lond., to Lena, third daughter of the late John HALE, Esq., of Felcourt Hall, Surrey, at East Grinstead, on July 21st.

GREENALL, Jas. B., Esq., of Lingholme, Cumberland, to Fanny G., eldest daughter of Wm. H. MACKINTOSH, M.D., Staff-Surgeon-Major, at St. George's, Hanover Square, on July 14th.

DEATHS.

ADAMS.—On August 8th, at Davenham, Joseph Adams, M.D., late of Waterloo, aged 47.

BALLINGALL, George R., M.D., late Bombay Medical Service, at Altamont, Blairgowrie, aged 42, on July 25th.

DUMINY, Oosterzee, Esq., of Capetown, at Aberdeen, on July 15th.

EARLE.—On July 17th, at Brentford, aged 4, William, son of E. S. Earle, Esq.

GORDON.—On July 18th, at Portsmouth, aged 5 weeks, Jane L. M., infant daughter of W. London Gordon, M.D., R.N.

HANSON.—On July 25th, Sarah Frances, wife of Newton Hanson, M.D.

JOHNSON, H. Scholfield, M.D., at Congleton, on July 20th.

KEARNEY, John, Esq., at Ovoca, co. Wicklow, on July 19th.

*LANGDALE, Henry, Esq., Surgeon, late of Green Hammerton, Yorkshire, at Scarborough, on August 10th.

LE MESURIER, Frederick, M.D., formerly of Guernsey, at Harpford, Devon, aged 55, on June 13th.

LOCKWOOD, Augustus P., K.L.H., late Surgeon-Major Royal Scots Greys, aged 49, on July 26th.

SHEPPARD.—On July 18th, at Knightwick Rectory, aged 75, Maria, widow of James P. Sheppard, Esq., of Worcester, formerly Secretary of the Provincial Medical and Surgical Association.

SOPER.—On August 7th, at 4, Clapham Rise, aged 11 weeks, Mildred Auguste, infant daughter of *William Soper, Esq., Surgeon.

WILLIS, Robert, M.D., of Oughterard, on July 17th.

TESTIMONIAL.—A very handsome testimonial has been presented to T. B. Anstie, Esq., Devizes, on his retirement from the office of Surgeon to the Provincial Dolphin Lodge, as a mark of esteem and respect.

DR. MARION SIMS has been honoured by the King of Portugal with the title and insignia of Commander of the Order of Christ.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

IT is particularly requested that, during the month of August, all communications whatever relating to the JOURNAL should be addressed to the office, 37, Great Street, and NOT TO THE HOUSE OF THE EDITOR, who is absent from town.

THE LICENSE OF THE COLLEGE OF PHYSICIANS.

SIR,—For some time past, many letters have appeared in your JOURNAL urging the College of Physicians to grant their license to the Licentiates of the Apothecaries' Hall without further examination.

Now, such a proceeding, in my opinion, would at once reduce that qualification on an equality with its neighbours. At present, it is the only respectable medical qualification open to the general practitioner without taking out a course of lectures with residence at an University. The examination to obtain it is a fair practical one in medicine, surgery, and midwifery; and any practitioner who could not pass such an examination, is not a proper person to practise as a general practitioner.

I am, as also some of my friends, at present reading for the examination, and hope after a little to pass the same; and we, together with the majority of the profession, sincerely trust that if any change is made in the mode of obtaining same, that it will be by making the examination stiffer, and thus draw a line of demarcation between the holders of such license and the ordinary ruck.

Your publishing this would greatly oblige.

July 1868. I am, etc., H. O.

THE GRESHAM LIFE ASSURANCE COMPANY.

SIR,—I would strongly advise your correspondent (Mr. King) to summons the manager or secretary of the above Company to the County Court of the district where he resides, and thus try the question at issue; viz., whether Assurance Companies are to request medical men to perform certain responsible and delicate duties for them, and then refuse to pay a reasonable fee for the same. I feel certain if Mr. King will but try the question, the result will be favourable to him and the profession. In this case, the Company sent a form to fill up, and to visit a case five miles from his residence. If it were my case, I should charge £2:2:0. I wonder if they would refuse to pay a lawyer for work performed at their request.

August 1868. I am, etc., H. H. R.

ERRATA.—In Mr. Solomon's paper on the Surgery of the Nineteenth Century, published in the JOURNAL of August 1st, the following corrections are required.

Page 104, col. I, line 8 from bottom (of text), *for* "early state" *read* "early date."

Page 104, col. II, line 23, *for* "instances" *read* "utterances".

Same column, line 13 from bottom (of text), *for* "immediately impaired" *read* "irremediably impaired".

SCABIES.

A MEMBER (Stony Stratford) will feel obliged to any brother associate, versed in the subject, to give him some practical information on the following queries.

Does scabies sometimes exist in the blood for months without showing any symptoms on the skin, except an occasional itching and tingling here and there?

Would it be necessary to purify the ticking of a bed or mattrass on which a person slightly affected with scabies had slept for some time, a sheet and blanket intervening?

If so, what is the best process for destroying the contagion?

Would a person suffering from scabies, and being cured, get it again by continuing to sleep on the same bed and bed-clothes which he had used during his cure, they not having been disinfected?

MEDICAL PRACTICE IN BIRKENHEAD.

SIR,—I have been two years in general medical practice here, and during that time have delivered six women only, who have expressed themselves satisfied with my attendance, and promised payment of my ordinary fee; but, strange to say, I have never been paid by one of them without litigation or such other annoyance, trouble, and delay, as one might be supposed to have in recovering stolen property. A man carrying on practice here without any qualification has shown me a list of two hundred midwifery cases he has attended here in the same time without having one defaulter. Such is life in this respectable community.

Birkenhead, August 1868. I am, etc., J. DE COURCY YOUNG.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

RUS will probably remember the name by searching his earlier recollections. This gentleman has recently returned to London.

THE LONDON DIALECTICAL SOCIETY.

SIR,—With reference to the paragraph in the BRITISH MEDICAL JOURNAL of August 1st, concerning this Society, I am directed by the Council to inform you that the article is based upon an unauthorised and inaccurate report of the meetings to which it refers.

It is proper that it should be understood that the Society is not committed to any views whatever. It consists of persons holding varied and diverse opinions upon the leading questions in ethics, politics, metaphysics, and theology; it is established for the purpose of discovering, by means of the dialectic method, the truth upon these and other important subjects; and, in seeking this desirable end, it gives its members the opportunity of comparing their opinions, free, as far as possible, from the disturbing influences of passion and prejudice.

As the writer of the article in question appears to be misinformed as to the principles and conduct of the Society, I enclose a copy of the prospectus and rules.

I am, etc., D. H. DYTE, Honorary Secretary.

32A, George Street, Hanover Square, W., August 4th, 1868.

*** Should not the correction be made where the report first appeared? and would it not be well that Dr. Drysdale and Lord Amberley should correct any inaccuracy? We have only quoted from a published and uncontradicted report; of whose authority we have no other than *prima facie* grounds of judgment.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Times, August 4th; The Wiltshire County Mirror, August 5th; The Exeter and Plymouth Gazette, July 25th and 27th; The Indian Medical Gazette, July 1st; The St. Louis Medical Reporter, July 15th; The Illustrated Australian News, May 2nd; and The Croydon Chronicle, August 8th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Henry Taylor, Guildford; Mr. W. Soper, Clapham Rise; Dr. R. L. Johnson, London; Mr. J. M. Evans, Hull; Mr. H. Hyman, London; Mr. D. Thompson, Launceston; Mr. Nunn, London; Mr. E. M. Wrench, Baslow; Dr. E. Kough, Bagshot; Mrs. Allwork, Maidstone; Mr. MacCurrie, Kimbolton; Mr. R. Pringle, London; Dr. James Edmunds, London; Dr. Heywood Smith, London; Dr. E. H. Blake, Bedford; Mr. W. C. Beatty, Weston-super-Mare; Mr. F. Ticehurst, Shoeburyness; Dr. Andrew Clark, London; Dr. Martin, Warrington; Dr. Bishop, Paris; Mr. Chadwick, London; Mr. E. Chapman, Oxford; Mr. J. V. Solomon, Birmingham; Mr. E. Chapman, Oxford; Mr. Carter, Bath; Mr. W. Date, Abergele; Mr. E. B. Gray, Oxford; Mr. G. F. Atchley, Cosham.

LETTERS, ETC. (with enclosures) from:—

Dr. Rolleston, Oxford; Dr. E. L. Fox, Clifton; Dr. Hilton Fagge, London; Mr. Fennell, Manchester; Dr. Morehead, Edinburgh; Dr. G. M. Humphry, Cambridge; Dr. W. T. Gairdner, Glasgow; Dr. Oppert, London; Mr. G. May, jun., Reading; Mr. Lund, Manchester; Mr. Lambton Young, London; M. A. B., London; Dr. Macloughlin, London; Mr. W. Parker, Bath; Mr. W. Copney, London; Mr. R. Nicholson, Hull; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. J. H. Barnes, Liverpool; Mr. H. Swete, Weston-super-Mare; Mr. Dyte, London; Mr. Vincent Jackson, Wolverhampton; Mr. J. de Courcy Young, Birkenhead; The Secretary of Apothecaries' Hall; The Registrar-General of England; Mr. T. M. Stone, London; Dr. John Murray, London; The Registrar-General of Ireland; Mr. Jonathan Hutchinson, London; Mr. G. Wiley, Norwich; Mr. W. E. Clendinnen, Market Drayton; Mr. G. Greaves, Manchester; The Director-General of the Army Medical Department; Dr. D. Nelson, Birmingham; Dr. W. Foley, Kilrush; Dr. H. S. Purdon, Belfast; Dr. H. Jackson, London; Dr. Acland, Oxford; Dr. Thompson, Torquay; Dr. J. Tucker, Sligo; Mr. G. P. Jemmet, London; Mr. C. H. Crane, Assistant-Surgeon-General, U.S. Army; Dr. Treutler, Kew; Dr. E. Nugent, Drogheda; Dr. John Chiene, Edinburgh; Dr. Guinness, Dublin; Mr. R. S. Smith, London; Dr. Mead, Newmarket; Miss Hinde; Dr. Christison; and Dr. A. T. MacGowan, Martock.

BOOKS, ETC., RECEIVED.

The Indigenous Drugs of India; or, Short Descriptive Notices of the Medicines, both Vegetable and Mineral, in common use among the Natives of India. By Kanny Loll Dey. Calcutta: 1867.

Principles of Organic Life. London: 1868.

The Second Annual Report of the Lothians' Medical Association, 1868.

The British Army in 1868. By Sir Charles E. Trevelyan, K.C.B. London: 1868.

The Canada Medical Journal. Montreal: 1868.

On the Pollution of the Rivers of the Kingdom, etc.

Some of the Educational Aspects of State Medicine. By H. W. Rumsey, M.D., F.R.C.S. London: 1868.

Report of the City of Glasgow Fever Hospital, 1868.

Dover as a Health-Resort and Place of Residence, its Climate, etc. By Charles Parsons, M.D. London: 1868.

Health and Meteorology of Newcastle and Gateshead, 1868.

Theory of the Treatment of Diseases. By W. Macleod. London: 1868.

Schools Inquiry Commission. London: 1868.

Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1867. By Reginald Southey and Alfred Willett.

A Woman's Work on Water-Cure and Sanitary Education. By Mrs. M. S. Gove Nichols. London: 1868.

OF THE
UNIVERSITY OF ILLINOIS

LECTURES
ON THE
PRINCIPLES OF SURGICAL DIAGNOSIS:
ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

BY F. LE GROS CLARK, F.R.C.S.,
Surgeon to St. Thomas's Hospital, and Examiner in Surgery in the University of London.

LECTURE III.—*Continued.*

Pain—Sleep—Objective Signs; viz., Deformity, Colour, Transparency, Temperature, Consistence, Œdema, Crepitation, Crepitus, Fluctuation—Diagnostic Value of Treatment—Shock—Definition, Causes, Physical, Mental, Toxæmic, Predisposing—Effects at Different Ages—Railway Collision—Effects of Shock on Nerve-Centres; on Heart—Temperature in Shock, and Reaction—Shock in Relation to Operations—Value of Stimulants in Diagnosis—Causes of Fatality in Shock.

I HAVE thus, Sir, endeavoured to place before you in a condensed form—too compressed and imperfect to satisfy myself, and needing your indulgent criticism—the leading principles which, I think, should guide the practitioner in the diagnosis of surgical diseases and injuries. I am conscious of having introduced much that is elementary in my observations; but I am not without hope that, in a collected form, these "first lines" may be suggestive, if they do not prove instructive.

In accordance with my proposal, I now proceed to exemplify these principles in their relation to Shock and Visceral Lesions; and I may at once remark that it does not form part of my arrangement or design to import speculative theories into these Lectures, or to attempt an exhaustive treatment of any part of my subject. It is my intention to state simply the results of my own observation, in the diagnosis of the interesting and important class of maladies which are included in the category I have mentioned.

That condition which we denominate Shock is well known to the surgeon by its symptoms. But these symptoms are sometimes present under circumstances which would scarcely justify the use of the expression in its ordinary acceptation; for this word seems to imply that which is the immediate sequence of a sudden cause—a collapse of energy from a diversion of force. Yet this definition is not strictly accurate in all instances in which we meet with those symptoms that, in the aggregate, constitute the vital depression of shock. In the moribund, we constantly notice in many respects a closely allied condition; and this is not surprising, inasmuch as the state of severe shock is in reality a critical one, which sometimes does terminate fatally without reaction. The peculiarity of shock, then, is this vital depression, generally sudden, which follows the exciting cause, whatever that may be, and which is marked by the influence thus exercised primarily on the nerve-centres and on the heart; and, secondarily, by implication or sympathy, and necessarily through the intervention of the nerves, on the organs of respiration, of assimilation and secretion, and on the senses. I say primarily on the nerve-centres or heart, because the immediate consequences of sudden and copious loss of blood are, in effect, those of shock; the diminished quantity of the circulating fluid depressing the action of the heart, and thus influencing the nerve-centres. Where this hæmorrhage is not apparent, the early stage of simple shock is not distinguishable from that resulting from loss of blood. The sudden collapse consequent on the introduction of air into a vein may be placed in the same category. The differences exhibited in some of their details, in these causes of shock, are due to the appeal being made indirectly to the nerve-centres through the medium of the heart. As conventionally understood, the symptoms which collectively are named, or are characteristic of, shock, are essentially those which denote that the centres or sources of nerve-force or energy are under the potent spell of some powerfully depressing agent, whether physical or poisonous, whereby their influence in the animal economy is disturbed, partially suspended, or perverted.

When the causative injury is physical, as in a crushed limb, the effect upon the brain is seen in the mental and muscular prostration. The relaxed sphincters and general atony of the muscles indicate the share of the true spinal centre in the hurt inflicted. The feeble pulse and cold surface measure the impression made upon the heart; whilst the clammy sweat, the arrested or disturbed secretions, the nausea or vomiting, manifest the sympathy of the assimilative organs, consequent on the more direct implication of the cyclo-ganglionic nerve-centres. The expression of the face is in unison with the general condition of the patient, betraying alarm, anxiety, and distress. But, when the shock of an injury is received directly upon the head, the symptoms are modified, but only in so far as the hurt has expended its force chiefly upon the brain. We thus have superadded, in severe concussion of the brain, to the other symptoms, loss of consciousness, which may endure for a considerable time, but which may be regarded as an accidental concomitant, and not an essential feature, of shock.

Again, the rupture of some important viscus—say, of intestine or bladder—is immediately succeeded by all the symptoms of shock: a condition which, in its early stage, is identical with that which is unattended by any visceral lesion.

Extremes of temperature, when sufficiently intense or long continued, are followed by severe and protracted shock, often terminating fatally.

In our surgical operations, we inflict shock upon our patients, varying in duration and intensity according to the severity and protraction of the operation, and the susceptibility of the sufferer.

Mental emotion, apart from bodily hurt, may produce similar phenomena, varying likewise in their degree, in accordance with the exciting cause: and there is no doubt that alarm and anxious suspense, when a surgical operation is impending, tend very much to complicate and aggravate the shock of the operation itself; and herein is chloroform a friendly agent in modifying the depressing effect of our handiwork, in that the mind of the patient is tranquil in the anticipation of passing through the ordeal without pain. Some of the symptoms of blood-poisoning resemble those of shock; indeed, their identity can scarcely be doubted in the early stage of fatal contamination, although the different adventitious and associated circumstances subsequently impart a special type, which is manifested according to the nature and dose of the poison imbibed. The transient shudder consequent on the mechanical irritation of introducing a catheter into the urethra, and the terrible rigor which ushers in pyæmia, are alike due to an impression made on the nerve-centres. I am aware that, in extending such latitude to the interpretation of the word "shock," I am overstepping the limit of its conventional meaning. But, if I am not mistaken in this view, I think it desirable to identify conditions which, though apparently dissimilar, are essentially the same in character, and exhibit phenomena, the analogy of which is not disproved by the variety of the exciting causes, and the consequently modified character of the resulting details. It seems to me that, wherever this can be safely accomplished, an advancing step in generalisation is thereby attained.

There can be no doubt that shock affects various individuals in a very different degree; and this, probably, in strict accordance with their natural or acquired susceptibilities. Certain mental peculiarities, allied with emotional sensitiveness and what is termed the nervous temperament, constitute the natural conditions which predispose to the severest consequences of shock; and disease, whether functional or organic,—especially the degeneration or textural change of some important viscus, operates by aggravating the immediate effects of an injury, but more particularly in protracting and complicating the effects of shock. Unsuspected degeneration of the liver or kidney, and, *à fortiori*, of the heart, are thus not infrequently revealed; and I believe that, in many instances, death after the shock of an injury or operation is due to this cause. For example, the organs of elimination, prior to such injury, were competent to the performance of their ordinary duties, by assisting one another; but, when taxed by the urgent demands of reparation, and impaired still further by the disturbed or perverted nerve-force, the assimilative process is left uncompleted; and death ensues, sooner or later, in consequence of the blood being poisoned by the retention of the products of organic conversion. This appears to me the most probable explanation of death occurring, as a remote sequence of shock, where such visceral deterioration exists; and even under other circumstances, where there is no organic change, it is quite conceivable that the assimilative, and especially the excretory, organs, would be so far prejudicially influenced by the derangement in the supply of nervous energy, that they should be incapable of properly performing their eliminative functions, and the blood should be thereby poisoned. Under these circumstances death may result, and that in some instances speedily, without the presence of pyæmic deposits, or other material effect being discovered after death. Of the direct agency of shock in altering the condition or constituents of the blood, I do not know anything.

As regards the effects of shock at different ages, my own observation has led me to the conclusion that, in the very young, the ordinary impressibility of childhood is manifested, as under most other circumstances in which it is evoked. But the shock is simple, uncomplicated by mental influence; and reaction is rapid in favourable cases. In fact, it would appear that deferred reaction in early life means no reaction. The most frequent opportunity we have of witnessing these phenomena in young children, is in cases of severe burn. Precisely the converse obtains in old age. The aged are less impressible than the vigorous adult; the effect of shock is less profound, but more often fatal, in consequence of the impaired resiliency of the organism,—the incapacity of the controlling centres to recover the equilibrium which has been abruptly disturbed; the enfeebled vessel has been so rudely jarred, that its contents have been spoiled by the commotion; and the lamp never burns brightly again, though the flame may flicker for a while in the socket. It is certainly in the prime of life, when the natural vigour is unabated, that the consequences of shock are most pronounced. And this is what we might anticipate, as the nerve-centres have then attained their full development, their mutual relations and sympathies are matured, and their functions, physical, psychical and organic, are most active. It is these same conditions, also, which determine a more energetic reaction,—proportioned to the vigour of the individual, and, within certain limits, to the gravity of the shock. Beyond such limits, *i. e.* where the shock is severe, the reaction is tardy and protracted in its full re-establishment; although indications of an effort to restore the lost equilibrium may be observed at a comparatively early period.

In that form of shock which is consequent on *Railway collision*, usually the distant sequelæ are more noticeable than the immediate effects; and I may remark that these, as far as my experience enables me to judge, are more often observed in the adult than in the very young and aged. No doubt this relative proportion is in a measure due to the circumstance that there are comparatively few old persons and children who are travellers; yet, I think it may be accounted for, partly, by the relative susceptibility of different ages to which I have alluded. Unfortunately there is one seriously disturbing element in the data on which we may found any conclusions respecting this class of injuries, viz.: the temptation to the patient, from pecuniary considerations, to make the worst of his case; and it is almost impossible to arrive at the truth, where so many of the symptoms rest exclusively upon the sufferer's assertion. I speak especially of that class of cases—the most numerous—where there is no evidence of physical lesion, and in which the symptoms supervene at an interval, longer or shorter, after the occurrence of the shock. Some of these instances are, no doubt, genuine; and in them we have the opportunity of studying the remote effects of shock, in which the spinal cord is the nerve-centre which is often primarily, though not exclusively, involved. In some which are characterised by loss of muscular strength, shrunk limbs, defective power in coordination, feeble exercise of motive volition, and even paralysis and imbecility, there must be organic change, which is often progressive, and marked by corresponding development of the signs and symptoms above enumerated. But in others the morbid condition is evinced by deteriorated health and defective nerve energy; and in these probably the impaired health is due to the indirect influence exercised on the organs of assimilation, and a reactionary impression exerted on the nerve-centres themselves.

Certainly, one general feature which I have noticed in this class of injuries is, that the shock at the time is comparatively slight and usually transient; or, if enduring, unmarked by any extreme symptoms or excessive reaction. Of course I refer to such cases as come within the category of so-called "railway injuries"; and not to those which present the usual characteristics of concussion of brain or spinal cord from other causes; and the shock of which I speak is that which I have already defined. The peculiarity of these accidents appears to be that the spine is roughly jarred, sometimes subjected to a succession of minor concussions or violent oscillations, and that the entire nervous system is simultaneously agitated. There is, consequently, no immediate persistent incapacity, as in ordinary concussions from a blow on the head or spine; but a prolonged series of symptoms ensue, directly traceable to the shock, and often assuming a more aggravated character as time elapses. But I am anticipating the next division of my subject, when I shall again refer to these injuries, and to the diagnostic features by which they are characterised. I may, however, be permitted to make a passing observation in reference to the remarkable, I fear I must say almost uniform, diversity of opinion which these cases elicit in medical witnesses, in courts of justice. This subject, as is not unnatural, is regarded in its moral rather than its scientific aspect by the public, and in a way not very complimentary to the profession. No doubt much of this antagonism is due to a cause which I have already touched upon, viz.: the deception practised by patients, and the consequent suspicion aroused in the minds of those who are required to investigate critically the veracity or probability of their statements. Suspicion may, in some particular instance, ripen into an assurance of fraud; whereas, a confidence, which may be apparently well founded, in the honesty and truthfulness of the same individual, may induce another medical man to take an entirely opposite view of his case, which rests chiefly on assertion, or on symptoms which may be simulated. Nevertheless, after making every allowance for discrepancies arising from this cause, it must be admitted that there is left sufficient to constitute just ground for severe criticism on the part of jurists and of the public at large. I think this state of things is much to be regretted, and that an effort should be made to rid ourselves of the consequent scandal which attaches to the profession. The only remedy which suggests itself to me is, I fear, too utopian to hope for, and too simple to realise. It is that, when medical men are engaged in the prosecution or defence of such claims, they should make it conditional that they be permitted to confer together, and, at the least, attempt to arrive, by consultation, at a joint opinion as to the true nature of the case and validity of the claim; leaving, of course, the amount of compensation, if any, to be assessed by the jury. I trust, Sir, you will not think that I am deviating too far from the path of my duties, in thus glancing at an ethical question which involves the honour and credit of our profession.

To return from this digression, shock and impaired nerve-function are, in one sense, identical; that is, shock is impaired nerve-function, although the converse is not the case. Yet, certain symptoms are present which, in paraplegia, are fully established, and possess an intelligible meaning; such, for instance, is the apparent anomaly of retained urine and involuntary evacuation of the bowels. This, however, is no real anomaly, but a consistent consequence of the cause in operation; for we know that the contractility of the bladder, and the peristaltic action of the intestine, are under the control of distinct nervous centres. Volition is suspended by compression or laceration of the spinal cord, but the cyclo-ganglionic influence is unimpaired. Peristaltic movement, therefore, proceeds; and the resistance,—probably enfeebled by the injury—due to the excito-motor contraction of the sphincter, is overcome by the *vis a tergo*; the action is entirely independent of the will. In some instances, in fact in most, of fracture of the spine, the general symptoms of shock give rise to difficulty in precisely defining the extent of permanent lesion; but as reaction succeeds, and the temporary disturbance in the circulation and respiration subside, the healthy restoration of the upper part of the body offers an interesting contrast to the suspended animal life of the lower half. The influence of shock on the heart introduces the question of the dependence of this organ on nerve-energy for its contractility. Its essential independence has been assumed by physiologists, although nervous *control* has been admitted in its fullest sense. That the muscular tissue of the isolated heart is contractile there is no doubt: but so is that of any other isolated muscle; such, for instance, as in an amputated limb. But I apprehend the rhythmic action of the heart after death or removal, and the peristaltic action of the intestines under similar circumstances, may be explained in the same way, viz.: by the limited generation of nerve-force within the organs themselves, derived from the scattered ganglia which pervade their structure. Rhythmic or regulated action would seem to imply the existence of a co-ordinating influence.

[*To be continued.*]

TETANUS SUCCESSFULLY TREATED BY ATROPIA.

By G. Oliver, M.B.Lond., M.R.C.S., etc., Redcar.

A healthy looking lad, aged 14, was seized with lockjaw and severe pain in the cervical and dorsal regions, with fever, a few days after jumping from a coal-waggon. On my visit (fourth day of symptoms), I noted well marked risus sardonicus; incisors separable for less than half an inch; masseters rigid; cervical and dorsal vertebræ arched forwards; sterno-mastoids and muscles of back rigid; abdomen flat and hard; legs and feet rigidly extended; tenderness along spine; arms free from tetanic symptoms; paroxysms of severe general spasm every few minutes; pulse 140; sleepless. I ordered one-sixtieth of a grain of atropia every three hours; and linimentum belladonnæ to be well rubbed over the spine and rigid muscles every six hours.

Within twenty-four hours, the physiological action of atropia showed itself; then the clonic spasms became less severe, and of shorter duration; and the tonic rigidity gave way, first in the legs and neck, then in back, and last of all in abdomen and masseters. On the sixth day of treatment by atropia, rigidity of the masseters alone remained. He was kept under the influence of atropia for three weeks. He then quickly and completely recovered his usual health under steel and quinine.

It is said by Brown-Séquard, that belladonna reduces congestion of the blood-vessels of the spinal cord and its membranes; that its principal physiological action is "spinal anæmia". I believe that the tetanic symptoms in this case depended on an excitability of the spinal cord, probably caused by "spinal congestion"—a derangement of the vaso-motor nerves of the cord and its membranes, which allowed more blood than normal to circulate through the contents of the spinal canal. If so, we have the *rationale* of the therapeutic action of atropia in this and allied cases.

ON THE RELATION OF FOOD TO WORK DONE BY THE BODY;

AND ITS BEARING UPON MEDICAL PRACTICE.

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Part II.

The foregoing observations and calculations were made in the month of July 1866, but I did not then publish them, as I found afterwards that I had been anticipated by Dr. Fick and Dr. Wislicenus of Zürich, in a paper published in June in the *Philosophical Magazine*, on the urea excreted during an ascent of the Faulhorn. Professor Frankland, in a paper published in the same Journal in September 1866, corrected some erroneous reasoning that found its way into Fick's and Wislicenus' paper, and further supplied, from direct experiment, the *Digestion coefficient* of proteine, which had been obtained by me from calculation. The actual value of this important constant was found by him to be—

Actual value of digestion coefficient of Proteine . . .	4.3155
Calculated value	4.8375

My only object in now publishing an account of the independent experiment and calculation made by myself, is to confirm the certainty of the important fact first proved experimentally by Fick and Wislicenus, that the force due to the urea excreted in a given time is not sufficient to provide the actual work that may be done by the muscles in the same time.

Liebig and his followers, misled by a preconception of the simplicity of nature, assigned to nitrogenous food the duty of providing the force necessary for the production of muscular work, by supplying the waste of muscular tissue; while they supposed the farinaceous and fatty foods to provide the amount of animal heat required by the body.

The opponents of Liebig have fallen into the opposite error, and deny that nitrogenous food contributes any portion of the force employed in muscular work.

The truth, as is usual, lies between the two entreme hypotheses, and we are now compelled to admit that a given development of force, expressed in animal heat, muscular work, and mental exertion, may be the effect of several, perhaps many, supposable supplies of digested food, farinaceous, saccharine, fatty, and albuminous. Just as a given algebraical function may be equated to a given constant, by the use of a certain definite number of values of its variable quantity, so may a given effect of work in the animal body be produced by certain definite, though very different, combinations of various kinds of food, the digestion of which follows each its own law, and developes its own amount of force. The number of roots in our equation of life increases the difficulty of solving it, but by no means permits the acceptance of the lazy assumption that it is altogether insoluble, or reduces a sagacious guess to the level of the prophecy of a quack.

Lavoisier supposed in his earlier investigations that animal heat was developed by the combustion of carbon and hydrogen in the lungs; just as in earlier times it was supposed to be produced spontaneously in the heart, which was imagined to be so hot as even to burn the hand that should imprudently venture to touch it. In like manner, Liebig and his followers supposed the muscular work to be developed in the substance itself of the muscles that were its instruments.

Both of these doctrines are now justly repudiated by physiologists, and the view, proposed, in 1845, by Dr. Mayer of Heilbronn, and recently developed with much ability, by Mr. W. C. Heaton, of Charing Cross Hospital, in the *Philosophical Magazine* for May 1867, that the blood itself is the seat of all the chemical changes that develope force in the body, has gained favour among physiological chemists, and also met with acceptance among practical clinical observers.

Thus the human mind revolves in cycles, and the physicians of the nineteenth century are preparing to sit at the feet of Moses, and learn that the blood of an animal really constitutes its life; whilst South African theologians reject his authority, because he happened to confound a Rodent with a Ruminant.*

No two classes of animals can well differ more from each other than the cats and ruminants, one of which is intended by nature to eat the other. They differ in all respects as to food, the cats requiring a supply of fresh meat and blood for their health, and the ruminants being exclusively vegetable feeders; yet in both classes we find a great development of muscular power, and of rapid action of muscles, qualities alike necessary to the pursuer and to the pursued. There can be no doubt that muscular work is developed in the cats from the combustion of flesh, and in the ruminants, mainly, if not exclusively, from farinaceous food. It is, however, worthy of remark, that the muscular qualities developed by the two kinds of food, differ considerably from each other. The hunted deer will outrun the leopard in a fair and open chase, because the work supplied to its muscles by the vegetable food is capable of being given out continuously for a long period of time; but in a sudden rush at a near distance, the leopard will infallibly overtake the deer, because its flesh food stores up in the blood a reserve of force capable of being given out instantaneously in the form of exceedingly rapid muscular action.

In conformity with this principle, we find among ourselves an instinctive preference given to farinaceous and fatty foods, or to nitrogenous foods, according as our occupations require a steady, long-continued, slow labour, or the exercise of sudden bursts of muscular labour continued for short periods. Thus chamois hunters setting out for several days' chase provide themselves with bacon fat and sugar; the Lancashire labourers use flour and fat, in the form of apple dumplings; while the Red Indian of North America almost transforms himself into a carnivore, by the exclusive use of flesh food; he sleeps as long, and can fast as long as the puma or jaguar, and possesses stored up in his blood a reserve of force which enables him, like a cat, to hold his muscles for hours in a rigid posture, or to spring upon his prey, like a leopard leaping from a tree upon the back of an antelope.

If the preceding view of the muscular qualities developed by the two kinds of food be correct, important inferences suggest themselves as to the food that should be employed in relation to several kinds of work. Of these inferences, I shall select two examples.

1. The nurses of one of our Dublin hospitals were formerly fed chiefly upon flesh food and beer, a diet that seemed well suited to their work in ordinary times, which was occasionally severe, but relieved by frequent intervals of complete rest. Upon the occasion of an epidemic of cholera, when the hospital duties of the nurses became more constant, although on the whole not more laborious, they voluntarily asked for bacon fat and milk, as a change of diet from the flesh meat and beer; this change was effected on two days in each week with the best results as to the health of the nurses, and as to their power of discharging the new kind of labour imposed upon them.

2. I have been informed, on competent authority, that the health of the Cornish miners breaks down ultimately, from failure of the action of the heart and its consequences, and not from the affection of the lungs called "miner's phthisis." The labour of the miner is peculiar, and his food appears to me badly suited to meet its requirements. At the close of a hard day's toil, the weary miner has to climb by vertical ladders through a height of 100 to 200 fathoms before he can reach his cottage, where he naturally looks for his food and sleep. This climbing of the ladders is performed hastily, almost as a gymnastic feat, and throws a heavy strain (amounting from one-eighth to one-quarter of the whole day's work) upon the muscles of the tired miner, during the half-hour or hour that concludes his daily toil. A flesh-fed man (as a Red Indian) would run up the ladders like a cat, using the stores of force already in reserve in his blood; but the Cornish miner, who is fed chiefly upon dough and fat, finds himself greatly distressed by the climbing of the ladders—more so, indeed, than by the slower labour of quarrying in the mine. His heart, over stimulated by the rapid exertion of muscular work, beats more and more quickly in its efforts to oxidate the blood in the lungs, and so supply the force required. Local congestion of the lung itself frequently follows, and lays the foundation for the affection, so graphically, though sadly, described by the miner at forty years of age, who tells you that "his other works are very good, but that he is beginning to leak in the valves." Were I a Cornish miner, and able to afford the luxury, I should train myself for the "ladder feat" by dining on half a pound of rare beefsteak and a glass of ale, from one to two hours before commencing the ascent.

The excretion of nitrogen by the cats and ruminants is very different, as might be expected from their food. I have ascertained that the urea discharged by a Bengal tiger and a sheep daily, is as follows.

Bengal tiger..	4375 grs. of urea.
Sheep..	256 ,,

It is worthy of remark, and serves to throw light on the meaning of the excretion of nitrogen from the body, that causes but slightly connected with muscular exertion in the ruminants increase amazingly the excretion of urea. Thus I have found the following excretion of urea from a ram during the rutting season.

Ram (rutting season).......................... 1493 grs. of urea.

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* No reasonable person can fail to perceive the ignorance of the great Lawgiver, who will apply to him the test first proposed by Swift for Homer; Moses, like the author of the *Iliad*, was totally unacquainted with the discipline and doctrines of the Church of England.

This amounts to a *sixfold* increase of urea, which cannot possibly be accounted for by the food consumed at the time, but requires us to assume a certain storing up of force, represented by nitrogenous compounds, which has been going on for a considerable period previous to the rutting season. A similar and equally remarkable storing up of phosphates and carbonates take place, previous to the rutting season, in the ruminants that shed their horns, which in the *Cervus Megaceros* often weigh 90 lbs.

These remarkable phenomena remind us of the maxim of the wise Hippocrates, who recommends moderation in the use of the gifts of the Golden Venus, as well as in those of Ceres and Bacchus—

πόνοι, σιτία, ποτὰ, ὕπνος, ἀφρυδίσια μετρία,

with which may be compared its converse in the Latin proverb—

Sine Cerere et Baccho, friget Venus.

Application of Theory to Diseased Conditions of Body.

The relation of food to work, complicated enough in health, becomes more so in disease, and the problem to be solved by rational theory becomes still more difficult. I cannot attempt even to sketch an outline of this part of my subject considered in general, but shall content myself with asking your attention to three remarkable examples of disease which illustrate the principles I have attempted to lay down.

These diseases are—

A. Typhus fever.
B. Cholera Asiatica.
C. Diabetes mellitus.

A. *Typhus Fever.*—In typhus fever a prominent symptom is the remarkable elevation of temperature accompanied by an increased excretion of urea and carbonic acid, by the kidneys and lungs, indicating (as no food is taken) an increased morbid metamorphosis of the blood and tissues. The temperature frequently rises to 104 deg. Fahr., representing an increase of upwards of 5 deg. Fahr. above the normal temperature.

If we knew the cause of this increase of temperature, or rather of the increased metamorphosis of which it is the sign, we should know the cause of *typhus* fever, and learn to combat the disease on rational grounds. At present the cause is unknown, and therefore the physician is forced to treat the symptoms as they appear, instead of attacking the cause of the disease. Let us examine for a moment the terrible significance of the symptoms.

Your patient lies for nine or ten days, supine, fasting, subdelirious; the picture of weakness and helplessness; and yet this unhappy sufferer actually performs, day by day, an amount of work that might well be envied by the strongest labourer in the land.

The natural temperature of the interior of the body is 100 deg. Fahr., while the temperature of the corresponding parts in typhus fever is at least 105 deg. Fahr. This seems at first sight a small increase—only 5 per cent. of the whole; but it is in reality two and a half times as great as it appears, and actually amounts to 12½ per cent., or *one-eighth* part of the total animal heat. For the total quantity of heat given out by the heated body is proportional (from Newton's law of cooling) to the elevation of its temperature of equilibrium, towards which it tends. If we suppose this equilibrium temperature to be 60 deg. Fahr., then the quantities of animal heat given out in typhus fever and in health will be in proportion of 45 to 40, showing that the animal heat of typhus exceeds that of health by *one-eighth* of its amount.

We have already seen that the work due to animal heat would lift the body through a vertical height of eight miles per day; and it thus appears that an additional amount of work, equivalent to the body lifted through one mile per day, is spent in maintaining its temperature at fever heat.

If you could place your fever patient at the bottom of a mine, twice the depth of the deepest mine in the Duchy of Cornwall, and compel the wretched sufferer to climb its ladders into open air, you would subject him to less torture, from muscular exertion, than that which he undergoes at the hand of nature, as he lies before you, helpless, tossing, and delirious, on his fever couch.

The treatment of this formidable disease in former times consisted of purging, vomiting, and bleeding the patient, with the view of eliminating an imaginary poison, and so helping nature to terminate the disease. In modern times, thank God, the physician either does not interfere at all, or adopts the rational process of retarding the disintegration of the tissues consumed to supply the fever heat, by furnishing in their stead, fuel, in the form of wine and beef-tea, sufficient to maintain the increase of temperature imperiously required. This practice may be justly considered rational, because the condition of the circulation admits of its application; and it is considered good, because it has been rewarded with success, in the hands of the skilful clinical physician. In concluding this sketch of the prominent symptom of typhus fever, and as an illustration of the eagerness with which every possible combustible in the body is made use of, I may mention, on the high authority of Dr. Stokes, of Dublin, that the very urea excreted by the kidneys is not permitted to leave the body without first paying its tax to fever, by being burned into carbonate of ammonia, thus rendering the urine of an advanced case of bad typhus fever eminently alkaline.

B. *Asiatic Cholera.*—This remarkable disease presents, as every one knows, three distinct stages, viz.—

1. The premonitory stage of diarrhœa.
2. The stage of collapse.
3. The stage of consecutive fever.

The stage of collapse exhibits the following symptoms:—Vomiting or purging; muscular cramps; suppression of bile and urine; lowering of body temperature to 95 deg. Fahr.; extreme prostration of strength; extremities pulseless; and face Hippocratic.

When death occurs during collapse, the following symptoms are usually found, on careful examination, in the corpse. The temperature rises to 103 deg. Fahr.; the muscles give out their characteristic susurrus CCC, and exhibit spontaneous movements; the whole train of symptoms producing the effect of a ghastly attempt at resurrection.*

In this disease we have phenomena respecting animal heat, the very reverse of those found in typhus fever; the body performing one vertical mile short of its daily work, instead of one mile in excess. The prostration of strength resulting from this deficient combustion is so great, that death is often caused by bringing the patient to hospital in a cab instead of upon a stretcher, by his walking up a dozen steps into his ward, and sometimes even fatal results have followed a sudden effort to sit up in bed to vomit.

The rise of temperature after death, and the continuance of muscular susurrus and motion, tend to prove that the impeded circulation, which is the prominent symptom in cholera collapse, is due to constriction (probably vasomotor nervous) of the capillaries, in consequence of which the muscles are deprived of their supply of freshly oxidised blood, the result of which is necessarily contraction and cramp, which produces the excessive agony that characterises this disease.

All authorities on cholera, whether their object be to "impede" or to "assist" nature, are agreed that medicines, whether astringent or purgative, are not only useless, but dangerous in the stage of collapse.

It is useless to give alcoholic fuel to restore the loss of animal heat, for there is no circulation to cause the oxidation of the hydrocarbons.

It is equally useless and more dangerous to give opium, to check the remaining purging that exists; for if vomiting have ceased, your acetate of lead and opium pills lie, as if in the stomach of a corpse, and at the termination of collapse, your patient enters upon the consecutive fever, with perhaps a dozen grains of opium in his stomach, placed there like an explosive shell by your ill-timed zeal, and rapidly passes into a comatose condition, from which he never for a moment rallies. His death is always accredited by the Registrar to cholera morbus, and not to opium.

Purgatives and emetics† in cholera collapse effect the same object as opium, but with greater rapidity. In the stage of blue collapse, the chances of life and death are almost exactly equal, and the slightest additional loss of force turns the wavering beam on the side of death. The effects of a brisk purgative or emetic (if they act) upon a patient, unable to climb a dozen steps, or sit up for a quarter of an hour, without fatal syncope, may be easily imagined; and the use of them cannot be justified by any arguments borrowed from right reason.

A remarkable though transient improvement takes place in collapse by the injection of warm water (brought to the specific gravity of serum by the addition of mineral salts) into the veins or bowels; the patient loses the cramps, feels that he is about to recover, speaks to his friends, and often transacts whatever business is necessary; but speedily falls back into collapse. The improvement in his condition is altogether due to the temperature of the fluid injected, which supplies for a brief period the deficient animal heat, permits a partial oxidation of the blood, restores the capillary circulation in the muscles, and so destroys the cramp; and by supplying the deficient work required, removes for the moment the fatal prostration of strength. Anyone who has witnessed the remarkable effects of warm liquids thus injected in cholera collapse must feel that recovery would be certain, if the improvement could by any possibility be made permanent.

Our hopes for the future as to the treatment of cholera lie, as I believe, in the direction of supplying to the body directly its lost animal heat. I have witnessed the happiest results from an injection of warm salt water into the bowels, assisted by hand friction of the surface with turpentine and chloroform, and the application of bags of hot salt along the spine: in cases treated in this manner, we may expect to witness cessation of muscular cramp, restoration of perspiration to the skin, with increase of capillary circulation, and finally, to reward our efforts, a return of the excretions of urine and bile; when these reappear, all vomiting and purging cease, and our patient is almost cured.

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* It is startling, on making a *post mortem* examination of a cholera patient alone, and by candle light, to witness, on the first free incision of the scalpel, the hand of the corpse rise slowly from its side and placed quietly across its breast.

† When mustard is used, its conservative effects as a stimulant sometimes counteract its destructive effects as an emetic.

After recovery, the contrast between the cholera and fever patient is as great as it was during sickness. The fever patient has been overworked for nine or fifteen days without a suitable supply of food, and when convalescent, experiences a complete exhaustion of strength that lasts for many weeks. The cholera patient, on the other hand, has been prevented from working by constriction of the capillary vessels, caused by the absorption of the cholera poison,* and feels, on recovery, much like a man that has been half drowned, while the fever patient resembles a man that has been half starved: the one is able to return to his work in the course of a few days, the other only after the lapse of as many weeks.

There are two popular superstitions prevalent among medical men respecting Nature, which yearly slaughter hecatombs of victims; viz., that Nature is simple in her operations and beneficent in her intentions; she is often both simple and beneficent, but at other times she is unquestionably both complex and malevolent.

An Egyptian fable informs us, that the votaries of goddess Nature were divided in opinion as to whether she was transcendently beautiful, or hideously ugly; and that, in order to keep up this difference of opinion which suits her purpose, she always wears a thick veil over her face.

> "For, with a veil that wimpled everywhere,
> Her head and face were hid, that mote to none appear;
> That some do say, was so by skill devised,
> To hide the terror of her uncouth hue
> From mortal eyes that should be sore agrised;
> For that her face did like a lion shew,
> That eye of wight could not endure to view;
> But others tell that it so beauteous was,
> And round about such beams of splendour threw,
> That it the sun a thousand times did past,
> Nor could be seen, but like an image in a glass."

Before trusting Nature in the matter of cholera, and proceeding to help her, it would be well to inquire whether she intends to cure the patient by her evacuations, or to put him into his coffin. For myself, I greatly mistrust her, and would wish to ask, previous to assisting her, whether she is really my mother, or only my stepmother. Our experience in Dublin has shown that no more effectual mode of shortening life could be devised in cholera than the "eliminant" treatment; and it was accordingly abandoned as soon as tried in that city.

It is much to be regretted that an authority so deservedly held in high repute as that of Sir Thomas Watson can be now quoted in favour of the treatment of cholera by the maxim *similia similibus curantur.* So far as Dr. Watson has informed us, his change of opinion rests upon the statements of others, and not upon his own experience. He has suddenly become an advocate of the castor oil, rhubarb, calomel, and eliminant treatment of cholera, and writes as follows:—"When I last spoke on this subject in these lectures, I stated that the few recoveries which I had witnessed had all taken place under large and repeated doses of calomel, but I could not venture to affirm that the calomel cured them. At present I am much disposed to believe that, by its cleansing action, the calomel may have helped the recovery; and, after all that I have since seen, heard, read, and thought upon the matter, I must confess that, in the event of my having again to deal with the disorder, I should feel bound to adopt in its generality the evacuant theory and practice."

Sir Thomas Watson omits to add that the cases here referred to were only six in number, of whom three died and three recovered; which is exactly what might have been expected if he had not interfered at all.

Cholera from Bengal visits these islands at intervals of about seventeen years, and it is much to be feared that on its next outbreak hundreds of patients will be sacrificed, in obedience to the dogma that asserts it to be our duty to assist nature.

C. *Diabetes Mellitus.*—This disease furnishes us with one of our best proofs that all the chemical changes, by means of which work is produced, take place in the blood and not in the tissues of the body; and, at the same time, an examination of its phenomena explains satisfactorily the regimen and diet which has been found, by experience, most suitable to the diabetic patient. I shall illustrate the disease by a case which was placed under my control, by Dr. Stokes, some years ago.

A young man, aged 20, named Murphy, suffering from fever (enteric?) in November 1859, and, on recovering, became diabetic. He was admitted into the Meath Hospital in October 1860, where he remained, under my observation, until his death on Jan. 12th, 1861. He was allowed, for nine weeks, to eat as much as he liked of certain kinds of food, which were varied, week by week, to suit his wants, my object being to obtain, if possible, the natural constants of the disease, undisturbed by external interference; the only medicine used, by Dr. Stokes' order, being opium, to produce sleep, and a little kreasote occasionally, to promote digestion. As the details of this experiment have been fully published, I shall confine myself to the final results. His food and excretions were analysed from week to week, so as to determine the total quantities of sugar-forming and urea-producing food, as well as the sugar and urea actually excreted. During six of the nine weeks, the sugar excreted was in excess of the sugar ingested; and the means of the daily excretion and ingestion of sugar were:

Sugar excreted ....9753 grs.
Sugar ingested ....9321 ,,

Diff. .... 452 ,,

During two of the nine weeks of observation, the urea excreted was in excess of the urea ingested; and the mean daily excretion and ingestion of urea were:

Urea excreted ....1182 grs.
Urea ingested ... .1349 ,,

The foregoing facts illustrate strikingly one of the prominent symptoms of diabetes; viz., the canine appetite. The quantity, both of sugar-producing and urea-forming food consumed is more than double what is necessary to maintain a vigorous labourer in perfect health. An examination of the excretions explains the other prominent symptom of diabetes; viz., the complete prostration of strength in the patient, notwithstanding the great amount of food consumed.

In a state of health, food produces three excretions only; viz., urea, carbonic acid, and water. In diabetes, the farinaceous foods appear in the excretions as sugar, and not as carbonic acid and water; and the work necessary to maintain animal heat must be provided altogether at the expense of flesh-food, which is the very form of food least fitted to maintain it.

The diabetic patient resembles a racing steamboat on the Mississippi whose supply of coals is exhausted, and whose cargo furnishes nothing better than lean pork-hams, to throw into the furnace, to maintain the race. It cannot be wondered at that our poor patient, under such disadvantageous conditions, fails to keep in the front.

Let us compare together the minimum of work necessary to keep Owen Murphy alive, with the work actually supplied to him by the food digested.

1. I have already stated that Dr. Ranke found 660 *grammes* of carbonic acid in the extreme fasting condition, when he weighed 67 *kilogrammes.* Now, since

660 *grammes* = 10185.35 grs.
67 *kilogrammes* = 147.71 lbs.

we find 69 grs. per lb. of body weight, as the minimum excretion of carbonic acid, consistent with continued life.

This quantity of carbonic acid represents a work generated by its production that would lift its corresponding pound of body weight through a height of

$$69 \times \frac{6}{22} \times 8080 \times \frac{9}{5} \times \frac{772}{7000 \times 5280} = 5.716 \text{ miles.}$$

Under ordinary conditions, the greater part of this carbonic acid and work is produced by the digestion of farinaceous food; but since, as we have seen, the farinaceous food is excreted as sugar in the diabetic patient, and therefore does no work at all, the whole of the foregoing work must be done by the digestion of other kinds of food.

I have already shown that it follows, from Lavoisier's experiments (confirmed in a remarkable manner by those of Regnault), that the work done by the combustion of carbon in the body is to the work done by the combustion of hydrogen in the proportion of 9068 to 3024, almost exactly 3 to 1; hence we have the work done, by Owen Murphy, as a minimum in health,

Due to carbon ....5.716 miles.
Due to hydrogen ....1.905 ,,

7.621 miles.

This result is somewhat in excess of the truth, for the same reason that the calculated *digestion co-efficient* of proteine is in excess of that found by Frankland from experiment; for the combustion co-efficients of carbon and hydrogen, in organic compounds, are slightly less than when free. If we are permitted to reduce 7.621 miles in the same proportion as in the digestion of proteine—namely, 48 to 43—we shall find:

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* Whatever this may be, its period of incubation is forty-nine hours; that of strychnine is twenty-two minutes.

Owen Murphy: minimum of work consists of body-weight lifted through ....6.83 miles.

Let us now compare this minimum with the work actually performed by him when suffering from diabetes, by the digestion of flesh-food and production of urea.

2. I have already shown that the work produced by the formation of 501.28 grs. of urea is 704 foot-tons, by calculation from the composition of proteine and urea. This result should be reduced in the proportion of 48,375 to 43,155, in order to obtain the work given by Professor Frankland's experiments. Making this reduction, we find that 500 grs. of urea correspond to 626.3 foot-tons of work, or 100 grs. urea to 125.26 foot-tons; or, in other words—

Every four grains of urea excreted correspond to five tons lifted through one foot.

Owen Murphy excreted, on an average, 1182 grs. of urea daily during nine weeks; which, by the foregoing rule, are equal to

$$1475 \text{ foot-tons} = \text{Murphy} \times x;$$

where x represents in miles the height through which the patient could be lifted by the work done per day; and is equal to

$$x = \frac{1475 \times 2240}{93.66 \times 5280} = 6.69 \text{ miles.}$$

This result is almost exactly equal to that already found as the minimum consistent with continued life, and explains in the most satisfactory manner the complete prostration of the patient, notwithstanding the consumption and digestion of more than double the usual quantity of flesh-food.

In corroboration of the foregoing conclusion, I may mention that Murphy's temperature was found to be constantly 2 deg. Fahr. below that of other patients (chronic) placed in the same ward, and, in other respects, under similar conditions. His unfavourable symptoms (so long as his powers of digestion were not impaired) were invariably alleviated by the free use of flesh-food and fat, the latter being, instinctively, preferred by him; so much so that, during the delirium that preceded his death for twenty-four hours, he raved incessantly about "fat, roasted fat, which the angels of Heaven were preparing for him."

I have studied many other cases of diabetes mellitus, and found similar results in all; but I feel it to be unnecessary to describe them, as one well ascertained train of phenomena, carefully observed and recorded, is quite sufficient to establish the order of nature.

Conclusion.

I have now, Mr. President and gentlemen, to apologise for the length of time during which I have spoken, and to thank you for the patience with which you have listened to me. I am well aware how much I am indebted to your kindness; for I laboured under two serious disadvantages in addressing you: in the first place, I had undertaken a task beyond my strength; and, again, my address is made shortly after you had, like myself, been charmed and instructed by the luminous, learned, and eloquent oration of Professor Rolleston. I felt confident, however, that I possessed one advantage that he did not; I was a stranger in Oxford, and believed that my faults in matter and style would be leniently criticised. In this expectation, I am happy to say I am not disappointed; and again I thank you for your kindness. Two other advantages I share with him, which have contributed to his address as much as to my own—a profound respect and reverence for all honest labourers in search of truth, whether they have preceded us by twenty years or by two thousand years; and an unwavering confidence and faith in the future that lies before the science of medicine. We traverse a sea, mapped with imperfect charts, carrying with us a sure guide in our compass and stars; but we cannot afford to neglect a single rock or shoal buoyed for us by the skill and care of those that have preceded us. Let us follow their example, and mark with conscientious care, for our successors, the dangers we ourselves discover and escape.

Assembled as we are, within the halls of the University of Oxford, the centre and heart of all that is intellectual and religious in the life of England; an University that borrows its accurate logic, as well as its refined ethics, from the lips of Aristotle; that reverences Euclid as the fountain and source of its elegant geometry; and sits at the feet of Homer, Pindar, and Æschylus, to learn its poetry; we need not fear that Hippocrates and Galen will ever want admirers and students; but the Oxford of to-day has taught us, what many did not anticipate, that she is equally ready and skilful, as she has proved herself to be in cultivating literature, to devote her vast intellectual energies to the encouragement and development of the natural sciences, based upon the solid, and only permanent foundation of mathematical research. The efforts made within the last few years by Oxford, to encourage within her walls the mathematical and natural sciences, have won for her the respect, and warmed towards her the hearts of all that search for truth in the study of nature. Our brothers in Oxford, like the Athenians at Syracuse, have gone on board the fleet, while we watch them from the shore, sympathising in the sea fight; as they win, we shout; when they fail, we weep.

Long may the union of the far distant, but never to be forgotten past, with the living present, that now exists in Oxford, continue. No science, no profession, can benefit so much by it as that of medicine.

ON CEREBRAL EXCITEMENT FROM THE HEAT.

By JOSEPH BULLAR, M.D.,

Physician to the Royal South Hants Infirmary.

THE object of the following paper is to attract attention, not to severe cases of sun-stroke, but to symptoms of less severity which are by no means uncommon, though an unusual and novel affection in this climate, and are to be attributed to the same cause as sun-stroke—the excitement of the brain and the disturbance of its circulation by the long-continued heat of the weather. These cases are attended with pain in the head, giddiness, faintness, fear of dying, chilliness and shivering, and often with palpitation of the heart, irregular pulse, and distressing nervous and mental sensations and delusions, which, from their similarity, are liable to be mistaken for hysteria, or "nervousness", or "biliousness", whilst the real cause is overlooked.

Before relating instances of the milder affection, I will begin with a serious case of sun-stroke, which shows that the less severe cases are of the same family.

CASE I.—On July 16th, George Reed, a strong labouring man, aged about 35, was brought in a cart from a corn-field four or five miles off, in an unconscious state, to the Infirmary. He had walked into the town for provisions; and, when walking with his hat in his hand (as he afterwards described), felt the sun strike the top of his head, and fell down in a state of insensibility. On admission, he was maniacal, tearing out his hair. His head was immediately shaved, and ice in bladders constantly kept to the scalp. Mr. W. Shorto, the house-surgeon, also put ten grains of calomel on his tongue, followed in four hours by a black draught; and gave him salines with tartarised antimony every four hours. During the rest of the day and the night, he continued unconscious and delirious; but the next morning he was sensible, but complained of intolerable pain in his head. He told the nurse that his violence in the night was from the intense feeling of heat in his head making him anxious, in his delirium, to get into cold water. He referred the pain to his vertex. The leeches and purgative were repeated on the 19th; and as his pulse became slower and cerebral, and he still complained of pain in his head and sleeplessness, one grain of calomel, with one-sixteenth of a grain of tartarised antimony, was given every four hours for two days, with improvement. On the 22nd, as he could get no sleep, and still complained of pain in his head—lying, as he always did, on his back, with his neck stiff, knitting his brows, with closed eyes, and with a distressed, fretful expression—I ordered ten grains of bromide of potassium every four hours, which certainly, in many cases, acts as a cerebral sedative; and on the next day his expression was quite altered. For the first time, he expressed himself as feeling better, and from this time he gradually improved; but it was a fortnight before he could get natural sleep. He continued the bromide until August 5th, and was discharged on the 13th quite well, but looking as if he had recovered from a severe illness.

The protracted sleeplessness in this case, and in other slighter ones, in which the heat and pain in the head and vertigo indicated cerebral congestion, is in accordance with the views of Mr. Durham, who has so clearly proved by experiment and physiological reasoning that the brain is anæmic, and not congested, during sleep—a doctrine which is in complete accordance with the sleeplessness of delirium tremens and other brain-affections, on the treatment and management of which it throws much light.

CASE II.—A lady, aged about 30, with two young children, strong, well-made, stout, and unused to illness, whilst walking in the street, a fortnight ago, was suddenly seized with pain in the head, giddiness, faintness, and a sensation as if she should die. She drove to my house on her way home, looking so ill that I hardly recognised her. I saw her once subsequently; but she was under the care of my friend Mr. Fowler. She was very ill for nearly a fortnight, with sleeplessness, disturbed nights, anxious fearful days; with occasional aggravated attacks of pain in the top of her head, which was hot; confused vision; vertigo; sickness; loss of power in her limbs, as if paralytic; palpitation of th heart; and irregular quick pulse, with a sensation of coldness of th body, and often a distressing anxiety, as if she were going to die. W agreed, besides quiet, cold to the head, and aperients, to give five grain of bromide of potassium every three hours, which she took for four or fiv days, during which she anxiously craved for it, and expressed herself much relieved by each dose. At the end of that period, she relapsed into her old state; and Mr. Fowler prescribed very small doses of calomel, tartarised antimony, and morphia; and this relieved "like a charm"; but a short suspension was followed by the old symptoms, which were instantly relieved on resuming the medicine.

The formula was: Hydrar. chlorid. gr. iv; antim. tartar. gr. j; morphiæ hydrochlor. gr. iij; sacchar. purif. ʒj. M. et divide in chartas xij. One-third of a powder was given every two hours for six times, and afterwards every four hours, and then reduced to a fourth part. She is now convalescent.

In this case, there can be no doubt that the brain was congested; and this was the source of all the nervous symptoms. For the patient was not a nervous subject; and on a very hot day, in good health, whilst walking, she was suddenly seized with giddiness and pain in the head; and the sleeplessness, the vertigo, as well as the relief from remedies adapted to an excited state of brain, indicated that the origin of the symptoms was cerebral. I dwell more on this, as, in many respects, the symptoms were what is usually called hysterical.

A lady between thirty and forty, after a railway journey, was seized in the night with severe pain in the back of the head and behind the ears, and the impression that she should die; and this pain in the head, nervousness, and alarm remained, with greater or less severity, for a month, and was aggravated by her return home by railway.

CASE III.—For the following very clear account I am indebted to the father of a delicate girl of thirteen, whom I once attended, but in this case did not see, as she was taken ill at a watering-place on the coast.

July 25th.—She was flushed, and complained of slight headache.

July 26th (Sunday).—Sharp headache came on during church, and went off partially in an hour or two.

July 27th.—She was in the open air on the beach, with the rest, most of the day, which was very hot. She went to bed with bad headache. At 10 P.M. her mother found her lying with her eyes open, and with a strange, unmeaning expression of countenance. She would not answer when spoken to. At 12 (midnight), she awoke with a violent headache at the top of the head towards the back and left side. The head was bathed with eau-de-Cologne and water for half an hour. She was crying and writhing in the bed with the pain all the time. She then said, "I am getting worse. I can't see; I don't know where I am; I can't remember anything; I shall soon die, I am sure." In a short time, she said, "The pain is just as bad, but I don't feel it so much." A medical man was sent for. He shook her, and tried to rouse her, believing it to be hysteria; gave her some sherry and water; applied hot bottles to the feet, mustard plaster to the back of the neck; but failed to give her relief. He ordered the cold applications to the head to be discontinued, which was not attended to. He showed her several things, but she could not say what they were; nor could she at that time even recognise her mother, though she seemed to distinguish voices. About 3 A.M., she was sick, vomiting watery matter *without* bile. At 4 P.M., the pain seemed to abate; and she suddenly fell asleep, and slept for two hours, waking with less pain.

July 28th.—She was in bed during the day. The pain was gradually subsiding.

July 29th.—She was up all day, but could not see perfectly, not rightly directing her hands when wanting to take up anything. She complained of optical delusions.

July 30th.—She woke at 7 A.M. with recurrence of violent headache, though not quite so severe. Ice was applied to the head for two hours; then sickness came on, and she suddenly fell asleep as before.

July 31st and August 1st.—She was pretty well.

August 2nd.—She had another slight attack. The symptoms were less marked, lasting about an hour, with sickness.

During the whole time, her appetite, usually very poor, was improved. There was no thirst; the skin was moist; the pulse slow and feeble, whereas her natural pulse is quick and irritable. In two or three days, her usual health returned.

CASE IV.—A medical friend informed me that, whilst driving in the sun, he was seized with pain in the back of the head, running down the spine, and with miserable faintness, which, however, soon went off; and a similar case of a lady has been related to me.

To recapitulate: it is important to recognise these sudden attacks of severe pain in the head, sleeplessness or disturbed sleep, faintness, and "anxietas", as an unusual and novel complaint, depending on cerebral excitement from the hot weather, and not to attribute the attendant nervous symptoms, such as palpitation of the heart, irregularity of the pulse, sense of cold, morbid sensations, and mental disturbances, to hysteria or nervousness, which they so much resemble, nor to biliousness; but to recognise and treat them as symptoms of increased cerebral action, by means calculated to allay increased action, rather than to stimulate it on the ground of weakness. Quiet, darkness, coolness, rest, with the head and shoulders raised when in bed; keeping the hair wet with cold water, eau-de-Cologne, and vinegar; unstimulating and light food, with tea, rather than cocoa or coffee; a bladder of ice kept to the head; with bromide of potassium in the milder cases, and, in more severe ones, leeches and antimony with salines, and even calomel and antimony; and, as in all head-cases, acting freely on the bowels,—are the means, according to the case, in which all would agree who recognise excitement of the brain from long-continued hot weather as the cause of the symptoms. Bromide of potassium, which acts as a cerebral sedative in epilepsy, certainly deserves a fair trial.

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

HEAD- AND HAND-PRESENTATIONS.

By W. ALLISON, Esq., East Retford.

IN addition to Dr. Tenison's letter in the number of July 4th, I may add, from my own practice, three other cases: the one in which the head followed the hand; the others in which the fingers' ends were in front of the ear. In each case, the pelvis was large, the uterine action strong, and the labours lingering; nevertheless, ordinarily sized children were expelled without the aid of artificial means.

A CASE OF CONVULSIONS: FLOODING: RAPID RECOVERY.

By MAXWELL REILLY, Esq., Castle Eden.

ON May 3rd, at 7 P.M., I was sent for to see Mrs. T., a little woman, aged 17, who had been in strong labour for six hours. The os was of the size of half-a-crown, rigid and hard. As she was a primipara, and bore her pains well, nothing was done until 11 P.M., when, as there was no advance, in spite of very strong and frequent pains, she was given small doses of tartarised antimony. The posterior circle of the os dilated rapidly, but the anterior circle remained perfectly unyielding. At 3 A.M. the membranes, which were very thin, ruptured; and a powerful pain forced the head, tightly covered by the anterior lips, into the perineum. The next pain forcibly dilated the obstruction, and with an epileptoid scream the woman went into a most violent convulsion, in which the right side of the face and body only were affected. The fit lasted for three minutes, and was succeeded by stertor and insensibility. The three following pains which expelled the child and the after-birth were each attended by a convulsion equally violent, and, as before, affecting the right side only. The pulse was 112, and full, and the right pupil widely dilated. I immediately bled her to sixteen ounces, applied sinapisms to the calves of the legs and nape of neck, and used the *douche* over the head and face. She become semi-sensible, and had no further fit, though the pulse remained at 112. Just an hour afterwards, very sharp hæmorrhage set in; but, warned by the "Churchill pulse," I had infusion of ergot in readiness, with which and cold applications the flooding was arrested after she had lost about three pints of blood, when the pulse fell to 90, and she appeared to recognise her mother. By 10 A.M., however, the pulse had regained its former hardness, and the convulsions, as violent as before, returned. She was again bled to twelve ounces, her head shaved, and a turpentine injection administered; but these measures were quite unsuccessful, as the fits continued, lasting longer, and with shorter intervals than previously. I then put her under the influence of chloroform in the middle of a convulsion with the result of immediately calming her, and she was accordingly kept anæsthetised for six hours. For the first four hours it was necessary to induce full anæsthesia, as a fit threatened whenever the chloroform was diminished, but subsequently slight anæsthesia only was employed as a precautionary measure. On recovering herself, she was quite sensible, and was given tartar emetic mixture with tincture of opium. On the fourth day she sat up, and the fifth day washed and dressed the child. She suffered from œdema during pregnancy, and at the third and sixth months her husband since states she had "a sort of fit like." The urine was not examined.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 22ND, 1868.

PROFESSIONAL POLITICS.

Among the most important and useful acts of every assembly, are those which are carried out quietly and without conflict or dust. In spite of the old proverb, the greatest revolutions have been made with rose-water; and the face of the earth is changed more by the quiet and noiseless process of the silent forces which build up continents and hollow the basins of seas, than by earthquakes and volcanoes. Of volcanoes, as of demagogues, it is true, that the noise bears no proportion to the work. The greatest work of the meeting of this year at Oxford was, perhaps, the unspoken influence of the aggregation of intellect and the friction of many minds. The unrecorded and impalpable impulses and corrections will escape criticism, but are the more irresistible because they are so numerous, so small, and so far beyond reach. But, even amongst the public acts of this congress, we may expect the most lasting effect from some of the most placid and least discussed resolutions of the meeting.

It is well to note, even if we do so without augury or promise, that at this meeting, for the first time, the British profession formally united to form Committees for the purpose of mutual assistance in political matters of common or reciprocal professional interest. Two Committees were appointed—the one to watch over the interests of the Poor-law Medical Services in the three countries, and the other to extend to a more imperial footing the action of the Parliamentary Bills Committee of the Association. These Committees include names which will inspire confidence. The Parliamentary Bills Committee includes, as its basis, a large number of members of the Metropolitan Counties Branch, together with representatives of other Branches, and also Sir Dominic Corrigan, Bart.; Dr. MacCormac; Rev. S. Haughton, M.D.; Dr. Macnamara; Dr. Aquilla Smith; Dr. R. McDonnell; Dr. G. H. Porter; Dr. Mapother; Dr. Hughes Bennett; and Dr. Gairdner. The Poor-law Reform Committee includes the following members: Dr. Sibson; Dr. Falconer; Dr. A. P. Stewart; Dr. Heslop; Mr. Newnham; Mr. Fleischmann; Mr. Heckstall Smith; Mr. E. Hart; Mr. E. Chadwick, C.B.; Mr. C. Neate, M.P.; Mr. Manley; Dr. Armstrong (Cork); Dr. Beatty; Dr. T. L. Mackesy; Dr. Macnamara; Dr. Quinan; Mr. Tufnell; Dr. Mapother; Dr. Hughes Bennett; and Dr. W. T. Gairdner. In each case, the Committee have power to add to their number.

The action of the Poor-law Committee will, it may be hoped, prove of especial value. There are already in each country organisations of the Poor-law medical officers: one of these, the recently formed Poor-law Medical Officers' Association of England, has wisely and gracefully solicited the assistance of the British Medical Association. The first object of the Committee will be to ascertain what are the immediate objects on which these Associations desire to concentrate their exertions, and how they can be strengthened and supported from without. There can, we think, be no question of the great usefulness of such special Associations, wisely conducted. They are apt to be more thoroughly localised, more sensitive to changes which threaten imperceptibly, more intense in their passionate energy, and more thoroughly alert, than any other organisation can be. On the other hand, they labour under special disadvantages. They find difficulty in awakening public interest, by reason of their obviously limited class composition. They are apt to be frankly, nobly, but mischievously egotistical. Composed of official servants of the state, they are more easily rebuffed by their official heads than perfectly independent persons can be; and their claims, assuming the character of persistent official grievances, are constantly relegated into the limbo of bureaucracy. The only immediate effect of the recent denunciations of Gwydyr House, seems to have been to irritate the officials against the medical officers who have met to listen to them and to applaud them; and the very latest act of these officials has been to refuse to sanction even such increase of salaries as the guardians of Paddington and of Mile End have been willing and desirous to make. So, too, the introduction of many of the most valuable provisions of the Metropolitan Poor Act of last year, tending to increase the independence and emolument of these officers, has been deferred. In this position of affairs—the Poor-law medical officers enraged and at bay, and the Poor-law Board defiant and oppressive—a Committee of our great Association, able to assert broad principles with a perfect independence, and without vengeful passion or interest, may find a most useful scope of action. It may confer, mediate, and argue; it may sympathise with the one side, and help to convince the other; and perhaps even, by mutual explanation, some of the irritation on both sides, which is now injuring the service, may be allayed, and a better feeling once more introduced. Again, with the Irish organisation, we may learn from them their wishes, and help to strengthen their efforts. The recent case of Dr. Robert McDonnell affords a proof that one of the principles for which they contend—that of superannuation for lengthened service—is capable of enforcement, when well backed by English, combined with Irish influence; and it remains only to labour at a joint organisation sufficiently powerful to lead to the general acceptance of a principle already applied in particular cases. We hope that the Committee will shortly meet, to take their work practically in hand.

The Subcommittee on the Representation of the Registered Practitioners in the Medical Council has been duly reappointed, with power to take steps to further the direct representation of the medical body, by the side of the existing representation of the corporations and the Crown. It was, of course, at once and immediately understood that the Medical Council, in meeting the action of our Association with a polite negative, which precluded even the necessity of argument, relegated the question to a higher sphere. They simply intimated that they were content with their own organisation; and that, if we wanted it altered, we must apply elsewhere. This the Association will do; and the pending Medical Acts Amendment Bill will afford an opportunity for doing it very effectively. The Committee will consider the best mode of action. There are two obvious modes; the first, by interviews with the Home Secretary and the Prime Minister; the second, by petitions from every Branch, numerously signed, and by making each Branch a centre of extra-sectional action throughout the profession in its district. Petitions, signed by many thousand members of the profession, would certainly lead to a careful consideration of this subject by the Government. We have good reason to believe that it might result in yet wider and more important changes in the constitution of the Council. At present, this Council professes to be solely incorporated, and to have mere regard to registration and education. Other and wider interests of scientific and medico-national relation may possibly be entrusted to a body more compact, more easily put in motion, and more truly representative. This Subcommittee will, no doubt, meet early, and communicate freely with the Parliamentary Committee of the Association, and, through the JOURNAL, with the Branches and the members at large. Their work is of the kind which commands and thrives on sympathy, and is best done promptly and in the eye of the public.

THE EDINBURGH COMMITTEE FOR INVESTIGATING THE CHOLAGOGUE ACTION OF MERCURY.

AT the recent meeting of the British Medical Association in Oxford, Professor Bennett, as convener and reporter of the Edinburgh Committee, read an abstract of the results which have been arrived at.

The Committee which, as our readers will remember, commenced its labours after the Chester meeting of the Association, has, after a laborious investigation on the action of mercurials on dogs, arrived at the conclusion that, whether administered in large or in small doses, the preparations of mercury exert no cholagogue action upon that animal. There can be no question that the investigation, which was carried out by two members of the Committee, Drs. Rutherford and Gamgee, is one of a very elaborate and interesting character; and it is obvious to any one who peruses the tables exhibiting the results of their experiments, that these must lead to a revision of many of our views with regard to the secretion of bile, and the circumstances which modify it. How far such an investigation can serve to throw a light upon the action of mercurials on man is, however, a matter upon which more than one opinion can be held. Physicians are justly disinclined to admit that experiments conducted on animals are sufficient, by themselves, to decide in a positive manner the precise physiological or therapeutical effect which a drug exerts on man. Still there can be no doubt that experiments on the lower animals furnish us, if judiciously interpreted, with most valuable data for arriving at a sound opinion with regard to the action of medicinal agents upon man. If we set aside certain very rare and exceptional cases, we shall find that our active drugs apparently influence dogs and some other animals in the same way as man, any differences which are observed being chiefly differences in the intensity of the symptoms induced by certain doses. In the course of their investigation, the Edinburgh Committee have found that mercurials, when administered in large doses to dogs, purge them; and, when in smaller and frequently repeated doses, induce the same group of phenomena which are observed in men under the same circumstances, viz.—fœtor of the breath, salivation, and ulceration of the gums. Having accurately ascertained these facts, the Committee appear to consider that the fact that mercurials fail to increase the flow of bile in the dog, affords an almost positive proof that these drugs do not exert a cholagogue action in the case of man; and we are certainly inclined to agree with them in this opinion. Several of the most competent and distinguished members of the Association, amongst whom may be mentioned Drs. Acland and Stokes, hesitated to apply the conclusions drawn in the case of dogs to the human species; and it was suggested by some that it would be desirable to extend the experiments to other animals, especially to donkeys and pigs. The chairman of the Committee expressed the willingness of the Committee to do this if sufficient funds were provided for the purpose, and the matter was remitted to the Council of the Association to be dealt with at their pleasure. It appears to us, however, that if a complete and laborious series of experiments on dogs be found insufficient to settle the question as to the cholagogue action of mercury in the case of man, the objection will still continue perfectly valid after other equally laborious and very costly experiments on donkeys and pigs; and considering the great variety of questions which might be worked out at the same cost of time and labour, we think that the money of the Association and the time of the experimenters might be more usefully employed. If endless pigs and donkeys had been kept upon a weighed diet, had their bile collected, weighed, and analysed, both before and after the administration of calomel, we should still have fresh objectors again questioning the worth of the experiments, and suggesting that some other animal, say the monkey, was better suited to throw light upon the question.

But, leaving aside the question as to the expediency of devoting more time and labour and money to the object of demolishing an effete therapeutical dogma, it may be worth while to examine the practicability of the experiments suggested at Oxford. It is curious to think that any one should have suggested the donkey as a suitable subject for experiment, seeing that, as it is an animal destitute of a gall-bladder, the establishment of a permanent biliary fistula ought to be looked upon almost as an impossibility. In the dog, a biliary fistula is established by making an incision in the linea alba, placing a ligature on the common bile-duct, and afterwards stitching the gall-bladder to the anterior part of the wound. In a certain number of cases the experiments succeed, and the animal survives for a considerable time; even in this case, however, there is a great tendency in the fistula to contract and close. In animals destitute of a gall-bladder, the bile-duct would have to be drawn to the surface and fixed to the edges of the wound—an operation which, from the injury it would inflict upon the important plexus of nerves surrounding the duct, would almost necessarily kill the animal. Even assuming, however, that the animal survived, we can have no doubt that exactly the same result would follow which has attended every attempt to establish permanent pancreatic fistulæ—the duct would contract, and, in the course of a few days, become obliterated.

With regard to the proposal made of experimenting on the pig, it may be said that such experiments would be open to the strongest objection, seeing that its bile, instead of containing, like that of man, the ox, or the dog, glykocholic and taurocholic acids, contains another acid—the hyocholic—the mere occurrence of which points unquestionably to a difference in the functions of its liver. But, besides this very valid physiological objection, there are others of a different nature which would probably be raised to the proposed experiments on pigs. We understand that considerable difficulty has been encountered in keeping a kennel in the University of Edinburgh; and, if so, we should anticipate that a pigsty would be an innovation scarcely approved of by the Senatus Academicus.

Whilst we cannot but express our approval of the laborious investigations which have hitherto been conducted by the Edinburgh Committee, we cannot but state our opinion that to extend the same mode of experimenting to other animals would now serve no useful purpose.

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DR. BARRY, the new Principal of King's College, will enter upon his duties in September.

THE University of Bonn has conferred the honorary degree of M.D. on Professor Syme of Edinburgh and Mr. Paget of London.

ON what information, the Spanish sanitary authorities at Carthagena have declared the port of London to be foul, we cannot say. It is not, however, palatable to us to be told so, and that all vessels proceeding from London will be sent to a lazaretto.

OF the thirty-eight candidates who passed for the Army Medical Service at the last examination, twenty-eight were educated in Ireland, and may be assumed to be Irishmen. Four came from Scotland, one studied in London and Aberdeen, one in Edinburgh and Cork, and one in Edinburgh and Dublin. Only three received their medical education in England exclusively. The service still continues to be chiefly recruited from the Irish schools, and as little as ever from those in England. A decrease is observable in the numbers from the Scotch schools.

Professor Fick, of Zürich, has accepted an invitation to the Chair of Physiology in the University of Würzburg.

Cholera is prevalent, according to the news brought by the last Bombay mail, amongst the native population in various parts of the Central Provinces, particularly at Jubbulpore; and the troops at Kamptee are reported to be somewhat seriously affected by the epidemic.

At a recent Court of the Governors of the London Hospital, it has been resolved that the style of Physician or Surgeon shall be conferred on those members of the assistant staff who have held office for seven years. Under this rule, Dr. Langdon Down and Mr. Maunder will have respectively the title of Physician and Surgeon to the Hospital.

The College of Physicians and Surgeons of Lower Canada, at the triennial meeting held on July 9th, agreed to seek to obtain from the legislature power to remove from their Register the names of persons holding the license of the College who may be guilty of acting in a disgraceful manner in a professional respect, and thereby to deprive them of all the rights and privileges granted by the licence.

The thirty-eighth annual meeting of the British Association for the Advancement of Science is now being held in Norwich. The meeting commenced on Wednesday, with an address by the President, Dr. Joseph Dalton Hooker, F.R.S. The principal topics of the address were the theories of Mr. Darwin. In the Section of Biology, the Rev. M. J. Berkeley was chosen President; Mr. W. H. Flower and Mr. E. B. Taylor, Vice-Presidents; and Dr. M. Foster, Mr. H. L. Stainton, the Rev. H. B. Tristram, and Dr. Percival Wright, Secretaries.

The Council of the Society of Arts offers three prizes, consisting each of a silver medal and £10, for the following subjects: 1, an improved method of conveying meat by rail; 2, an improved method of conveying milk by rail; 3, an improved railway milk-can. The objects in view are to reduce to a minimum the changes of temperature and the exposure to handling, dust, etc., to which meat is subjected; and to reduce the liability to heating and churning of the milk. Models and specimens are to be forwarded to the Secretary of the Society of Arts before February 1st, 1869.

The *London Gazette* of August 14th contains a list of army officers on whom the Order of the Bath has been conferred for their services in Abyssinia. Among them is only one medical officer, Surgeon-major E. Mahaffy, M.D., who is appointed an ordinary member of the military division of the third class, or Companion of the Order. The following promotions have been made: Deputy Inspector-General of Hospitals S. Currie, M.D., C.B., to be Inspector-General of Hospitals; Staff Surgeon-major T. Guy, M.D., to be Deputy Inspector-General of Hospitals; Surgeon C. D. Madden, 4th Foot, Surgeon N. H. Stewart, 3rd Dragoon Guards, and Surgeon J. Sinclair, 33rd Foot, to be Surgeons-major. Surgeon J. A. Dick, Royal Navy, has been promoted to the rank of Staff-Surgeon. The promotions are stated to be in consideration of valuable services in the Abyssinian expedition.

The Indian papers report that a sensible order has at last been issued on the subject of removing troops into camp on the appearance of cholera in an epidemic form. In the hot and rainy seasons the camp is to be the last resource, and only such buildings as have actually presented cases are to be vacated. If, for instance, the disease should appear in one building, the whole of the troops are not to be moved forthwith into camp. Only the inmates of that particular building are to be moved. Similarly, when a troop or company is attacked, it should be dealt with in the same way. The whole of the troops in a station are not to be moved into camp, unless it be found that the measures already adopted are insufficient to stop the progress of the epidemic. If we mistake not, the terrible sufferings of the Buffs in camp near Meerut last year have had something to do with the promulgation of the order referred to.

MEDICAL CANDIDATES FOR PARLIAMENT.

Some other additional members of the profession have appeared in the field. Dr. Humphry Sandwith, C.B., who was on the staff of Sir Fenwick Williams during the gallant defence of Kars in the Crimean war, comes forward as an advanced liberal for Marylebone. His high public standing and the interest he takes in all matters concerning the profession, entitle him to very large support from the numerous medical electors of Marylebone.—We understand that Sir Dominic Corrigan has been requested to stand for Dublin, but has declined; he fully intends, however, coming forward for one of the Irish provincial boroughs.—Mr. Alfred Smee, F.R.S., of London, intends to try his fortune again as a conservative at Rochester.—Dr. B. W. Richardson has issued his address as a candidate for the representation of the Universities of Edinburgh and St. Andrew's. He comes forward on independent principles.—Mr. Mitchell Henry, late assistant-surgeon at the Middlesex Hospital, comes forward in the liberal interest for the representation of Manchester. He seems likely to be well supported. He was presented with a requisition, signed, it is said, by 11,000 of the electors of Manchester, inviting him to become a candidate for the representation of the city at the next election.

THE NAVAL MEDICAL SERVICE.

The *Army and Navy Gazette* says: "The dearth of medical officers is still severely felt throughout the navy, and, unless the Lords of the Admiralty shortly adopt some conciliatory measures, the consequences will, at no distant period, be found to be very inconvenient. The candidates at Somerset House are not the best specimens, and perhaps the idea of a naval medical college will crop up again." No one will be surprised at this state of affairs, while the gross injustice of the Admiralty, in the case of Dr. Stirling, is so fresh in our memories. We hope that the dearth may continue until the profession has some assurance that the naval medical officers will not be again exposed to similar indignities. The idea of a naval medical college is no doubt a good one, and, if carried out, would improve the standard of naval medical officers; but there are matters of equally great importance with this, of simple justice, which it would be politic in the Admiralty also to attend to.

THE NEW HOSPITAL AND THE WORKING CLASSES IN EDINBURGH.

We are glad to observe that the United Trades Council, having been requested by the Acting Committee of the Royal Infirmary to undertake the organisation of the subscriptions of the working classes, have received books for that purpose, and have circulated them in the various workshops throughout the city. We also understand that a committee, consisting of a considerable number of representatives of the trades of Leith, has been formed to co-operate with the Provost's Committee, and that the movement in Leith has met with the greatest good feeling and attention from all classes of the community.

MORTUARY FOR MARYLEBONE.

Our remarks on mortuaries in a recent number are likely to be productive of much good. Arrangements are now being made for the rapid construction of the long talked of mortuary for Marylebone in Paddington Street burial-ground. The style will be plain Egyptian; its extent 28 feet long, 19 feet wide, and 17 feet high. The walls will be of brickwork stuccoed, the floor of stone, covered in by an iron roof, the centre part filled in with rough glass. The other portion of the roof, measuring nearly three-fourths of the whole area, will be covered in with slates, boarding, and felt. For the purpose of admitting fresh air to the floor level there will be a trench the whole length on each side of the building covered with an iron grating, each trench will have five communications with the external atmosphere by means of air bricks. For the escape of vitiated air there will be an opening at least three inches wide all round the eaves of the roof, and the upper part will be entirely open, but protected from rain by means of a projecting frame glazed with rough glass, and kept sufficiently high to admit of a very free escape of any impure air which may ascend into the upper part of the roof.

THE EPIDEMIC IN THE MAURITIUS.

In spite of more favourable weather, the fever does not disappear. The general mortality in town and country, and especially in the latter, has certainly diminished; it is, however, far greater than it ought to be, and particularly in Port Louis, where the death-rate is 10 per cent. per annum. The population of the whole island was 340,000 last year, and the mortality over 41,000; yet, notwithstanding this enormous fatality, the authorities kept squabbling in a most disgraceful way. The Government and municipal authorities did not act as they ought to have done; and the General Board of Health, hampered as it was by the Local Board, and by the ill-health of Dr. Reid, the Vice-President, who has just resigned, made little sanitary effort to improve the state of the public health. We are glad, therefore, to see some chance of earnest work being done. His Grace the Duke of Buckingham sent a despatch to the General Board, recommending a system of drainage for Port Louis; and, although many of the local papers resisted the idea on the most absurd and ignorant pretexts, a movement in the proper direction has been taken. A Commission, including the resident engineer of railways (who, we hope, is a good sanitary engineer also), has been appointed to decide on the system of drainage to be sanctioned; and the Commission have resolved to request His Excellency the Governor to order a block contour survey to be made, preliminary to the whole question. The Fever Inquiry Commission have also appointed a subcommittee, including three medical men, to prepare a concise report on the evidence already obtained, which should have been collected in an useful form long ere this. Whether the efforts now being made will come to anything, it is difficult to say; but, should they not have a speedy result, it is the duty of the Government at home to take the matter up in a more earnest spirit, and send out a Commission to investigate what has been shameful, and we might add criminal, mismanagement and neglect, on the part of the authorities, of the sanitary means at their disposal. A letter in the *Times* of Wednesday, dated Mauritius, July 16th, gives a fair idea of what troops living there at present have to undergo. In the case of the troops landed there by the *Tamar* eight months ago, there were of Royal Artillery thirty officers and men; Royal Engineers, thirty-three officers and men, four women, and eleven children; and the 86th Regiment complete. Of the Artillery, every every one has had the fever; fortunately, there have been no deaths as yet. Of the Engineers, every one has had the fever; three men and two children have died. Of the 86th Regiment, more than two-thirds have had the fever; seven men, six women, and thirty-eight children have died. Again, in the 32nd Regiment, the admissions to hospital from fever among the men during the last two months have amounted to 25 per cent. of the total strength; six of these men have died, and this during the cold season in Mahébourg, supposed to be the most healthy quarter in the island. The men whose term of service has expired decline to re-engage. As to the barrack accommodation, it appears to be of the most inferior kind, only about one-seventh of the regulation cubic space per man being afforded, and no means of amusement furnished for the officers or men. Such a state of things is discreditable in the highest degree, and must be remedied, either by furnishing proper accommodation, or by greatly diminishing, if not by entirely doing away with, the Mauritius garrison.

METROPOLITAN FEVER AND SMALL-POX ASYLUMS.

A MEETING of the managers of the Metropolitan District was held recently at the Board-room of the Metropolitan Board of Works, Spring Gardens; Dr. Brewer in the chair. The business in connection with the erection of metropolitan hospitals was very much advanced, and two long reports of the committee, embodying plans and arrangements for the erection of a fever hospital and a small-pox hospital at Homerton, were adopted with but slight alterations. For the fever hospital it was decided to offer a prize of £200 for the best design, and another of £150 for the second best; the successful architect to carry out the plans for £1,000, but that he be not entitled to any prize or payment, unless some substantial contractor undertake the work at a price not being more than 10 per cent. above his estimate of the cost. Accommodation is to be provided for 182 patients in the following proportion for the different classes:—Typhus: males 48, females 48—total 96. Enteric fever and febricula: males 18, females, 18—total 36. Scarlet fever: males 16, females 16—total 32. Other cases: males 6, females 6—total 12. Special cases: males 3, females 3—total 6. Grand total 182. The internal dimensions of the rooms are to be such as to afford at least 130 superficial and 2,000 cubic feet of space to each case of typhus, scarlet fever, and febricula. The arrangements for ventilation and meeting every possible contingency that can be met are excellent, or at least will be so, if carried out as laid down on paper. A prize of £180 has been offered for the best design for the proposed small-pox hospital, and another of £100 for the second best; the winner, as in the previous case, being bound within certain limits as to the cost of carrying out the design. The eight principal wards are to be built to contain 12 patients each, with a width of about twenty-four feet, and are to afford 2,000 cubic and 140 superficial feet to each patient. Special and very necessary arrangements are to be made for the isolation of cases, and for the disinfection of clothing, etc.

EPIDEMIC OF FEVER IN CEYLON.

It is probably known to few that an epidemic of a serious and fatal character, and similar to that decimating the Mauritius, has been raging for some time amongst the natives in the western and north-western provinces of Ceylon. According to most accounts, the state of misery of the inhabitants is almost beyond description; large numbers dying without any or proper attention. A writer in the *Ceylon Observer* says that, in five miserable huts close to each other, he found nine cases of fever, and another account states that, in one small village, with a population of five hundred, only a few miles from Columbo, two hundred and ten were ill with fever, and there had been eight deaths in one week. The epidemic is attributed to various causes. Money has doubtless not been so scarce for many years back among the native community as it has been during the last few months, since the completion of the railway, and many are now in the greatest destitution. Added to this, there has been a long continued drought, which has produced a partial failure of the Maha harvest; and this state of matters will again be aggravated by the failure of the Yala crop, from the inability of the sick villagers to prepare the ground and put in the seed. To relieve the present distress, a committee has been formed to supply rice and quinine to the sufferers, and Government also is assisting. The supply of necessaries from these sources—liberal as the support of the well-to-do native, British, and other residents has been—is totally inadequate; and unless Government be liberal, and relief come from Europe, we cannot but believe that matters, instead of improving, will become more and more hopeless.

NÉLATON A SENATOR.

NÉLATON has been made a Senator—an honour which until now h been withheld from French surgeons. Now that a precedent has been es blished, we hope we shall hear of more liberal honours being bestow on the profession in France than hitherto.

EPPING FOREST ENCLOSURES.

AN attempt is being made by the Buckhurst Hill Society to stay the lord of the manor of Chigwell from cutting down the timber and building upon a piece of beautiful forest land, known as "Lord's Bushes". The opinion of eminent counsel has been obtained to the effect that such an act is illegal. It is to be hoped that every effort will be made to resist this encroachment on a piece of ground of so much value to those residing in the neighbourhood, and indeed to the whole of London.

THE HERBERT MEMORIAL PRIZE.

THIS prize, the first that has been given since its foundation, was lately awarded, at the Army Medical School, Netley, to Dr. Cunningham, of Edinburgh University, after a close competition with Dr. Lewis, of Aberdeen University and University College, London, Medical Schools. Dr. Cunningham took the first place in Her Majesty's Indian Medical Service; and Dr. Lewis occupied the same position in the list of the British Medical Service.

REPORT

OF THE

STATE MEDICINE COMMITTEE.

Presented at the Annual Meeting of the Association, held in Oxford, August 1868.

THIS joint Report owes its existence to a happy suggestion of Mr. George W. Hastings. It was fit and proper that the proposal for the co-operation of the British Medical and Social Science Associations should come from the founder of the one—himself the worthy son of a father, whose name is held in reverent and affectionate remembrance by thousands as the founder of the other. The subject—State Medicine—being one which belonged, in all its breadth of scientific interest and philanthropic effort, to both Associations, the idea, which had already presented itself to several minds, of combining the operations of these two great and influential bodies in the prosecution of a common end, found ready acceptance with the crowded audience which listened with deep interest at Dublin to the luminous and comprehensive address of Dr. Rumsey.

The Committee then appointed by the British Medical Association at once addressed itself to its allotted task, and held two meetings before the Association broke up, having appointed as permanent chairman Dr. Acland, the President-elect of the Association, whose labours in this department during the last seven months have been as earnest and unwearied as if he had no other anxious duties to occupy his time and distract his attention. A brief sketch of the proceedings of the British Medical Committee is essential to a clear understanding of what follows.

The Committee, having been instructed "to collect information in such manner as they might think best, on the subjects brought before the Association by Dr. Rumsey," resolved unanimously, that every endeavour should be used to induce the Government to undertake the necessary inquiry, which they alone could conduct satisfactorily and with authoritative results. But, in the event of this responsibility being declined by them, it was thought advisable that an inquiry should be instituted by the Committee, either singly or in conjunction with the Social Science Association, with the view of shewing, by as large an amount of evidence as they might be able to collect, the existing state of our arrangements in regard to Legal and Preventive Medicine; and the necessity of a comprehensive and searching investigation of the whole subject, in all its bearings, by the legislature.

The extent of the inquiry, both as regards its geographical limits, and the subjects to be included, necessarily engaged the attention of the Committee, who, though at first disposed to restrict it considerably in both respects, ultimately arrived at a unanimous decision in favour of an inquiry which should embrace the whole kingdom, and the subjects of Registration, Medico-legal Investigations, and Sanitary Administration. These resolutions, however, as also the Schedules of Queries which were drawn up, at the request of the Committee, by Dr. Rumsey and Dr. Stewart, were only provisional, being left open for consideration by the joint Committee, whensoever it should be constituted. Meanwhile the chairman was authorised, if an opportunity should present itself, to ascertain the views of the Lord President of the Council or the Home Secretary, in reference to the suggested appointment of a Royal Commission.

The formation and combined action of the Joint Committee having been delayed for a considerable period by circumstances which need not now be detailed, the intervening time was most profitably occupied by the Chairman, who was privately corresponding with several important official personages; and by Dr. Rumsey, who not only printed and circulated extensively his Dublin address, with a corrected report of the discussion which followed it, but drew up and sent round to the members of Committee and others, for their comments and suggestions, an elaborate "Memorandum", containing the materials of an exhaustive inquiry, besides securing, through the kind offices of Dr. Evans, of Gloucester, the hearty co-operation of Mr. George Clive, M.P., whose long Parliamentary experience and official knowledge render his counsel and aid peculiarly valuable.

Finally, at its last meeting in April, the Committee, besides expressing its approval of Dr. Rumsey's amended "memorandum," and recommending for the consideration of the joint Committee a memorial drawn up by the Secretary, adopted a series of Resolutions in reference to the Artizan's and Labourer's Dwellings' Bill, introduced into the House of Commons by Mr. McCullagh Torrens, and a memorial to the General Council of Medical Education, praying them to take steps for defining the special training and qualifications required for Medical Officers of Health. This request has met with prompt and gratifying attention from the Medical Council, which has appointed a Committee of its number to consider this subject, and report to next Annual Meeting.

The Council of the Social Science Association having chosen a Committee, with Sir James P. Kay Shuttleworth as its chairman, the joint Committee met on the 1st of May, and found their proceedings much simplified by the foregoing labours of the Committee of the British Medical Association. The work proposed for the Joint Committee was twofold; viz., to decide

1.—What, in their opinion, should be the mode, nature, and extent of the inquiry, and

2.—What steps should be taken to prevent the introduction of further complications by fresh legislation.

The need of inquiry is disputed by no one. Accurate and trustworthy information, to which all can appeal, is the one great want of the Legislature and the public, who are alike in the dark as to the operation of the laws imagined to be in force; and until that information is supplied, not from a part, but from the whole, of the United Kingdom, satisfactory legislation is impossible. As regards the *mode* of the inquiry, the opinion of the Joint Committee was unanimous in favour of a Royal Commission, as the only agency through which a complete and searching investigation of a very large and complex subject—embracing many local details which could only be ascertained on the spot—could be successfully carried out.

As regards the nature and extent of the inquiry, the absolute necessity now universally acknowledged, both in and out of Parliament, of taking in hand and settling the question of areas of administration, which is involved in almost hopeless confusion, calls for the fullest information as to the jurisdiction, often conflicting, of local authorities. This, again, raises the question of the appointment and removal of the multitude of officers required—or supposed to be required—for the administration of the laws, which in most places are believed not to be administered at all, viz., Officers of Health, as compared with Certifying Surgeons under the Factory Act, Public Analysts, Engineers, Surveyors, Sanitary Inspectors, Inspectors of Nuisances, Inspectors of Lodging and Slaughter-houses, Inspectors of Food and Markets, Inspectors of Gas-works, etc. Out of this naturally arise the questions of the subordination or independence, the remuneration, and the duties required, of these and other officers, with special reference to the extent of the areas and populations of which they are overseers. These questions, again naturally suggest the inquiry whether, by a re-arrangement of districts and duties, and the appointment over large areas of superintending officers specially trained for the discharge of their varied functions, it might not be practicable to combine a considerable economy with an efficiency of administration hitherto unknown.

The great *desiderata* for the future are, in the opinion of the Joint Committee, such an amendment of the present system of Registration of the Causes of Death, as will make the Registrar's certificate a reality instead of being, as it too often is, an illusion; the institution of Returns of Still-births, and of cases of sickness not proving fatal; the appointment of skilled Medical Assessors as advisers in all Medico-legal Inquiries; and the compulsory appointment in large but manageable districts of highly trained and well-paid Officers of Health, to whom all Inspectors should be subordinate and responsible.

The Joint Committee entertain the firm belief, that the facts to be elicited by the inquiry they suggest will go far to settle the questions in regard to which serious doubts are known to exist, whether the functions of Superintending Registrar and Medical Assessor can be combined in the hands of the Officer of Health, and whether the duties of Officer of Health are compatible with private practice; besides throwing a flood of light on various other questions necessarily involved in the consolidation and amendment of the laws relating to the Public Health.

Holding these views, the Joint Committee embodied them in a memorial, which owes much of its completeness to the careful revision of Dr. Wm. Farr, and requested an interview with the Lord President of the Council, the Secretary of State for the Home Department, and the President of the Poor-law Board. This was granted on the 22nd of May, when a large and influential deputation, consisting of the Joint Committee, many of whom had come, at two days' notice, from all parts of the Kingdom, was introduced by Mr. George Clive, M.P., and accompanied by Sir Thomas Watson, Dr. Burrows the President of the General Medical Council, Dr. Sibson the President of Council of the British Medical Association, and the following Members of Parliament, Mr. Cardwell, Mr. Roebuck, Mr. Acland, Sir Thomas Lloyd, and Sir Edmund Lechmere. Various members of the deputation had then an opportunity of fully expounding the views and wishes of the Joint Committee, who have reason to believe that their representations have not been without effect, and that the Royal Commission they have asked for will soon be nominated by the Crown.

Meanwhile, there was quietly passing through the House of Commons a Bill for the Improvement of the Dwellings of Artizans and Labourers, the history of which illustrates, in brief space, most of the vices of our favourite custom of piecemeal legislation. Though dealing with a subject of Imperial magnitude, well worthy the best attention of Her Majesty's Government, it was brought in by a private member, and received the tacit support of the Government, who thus evaded all direct responsibility for its provisions. And if the Joint Committee felt themselves compelled to oppose some of these provisions, it was not, as its promoters well know, from any indifference, far less from any hostility, to the object they had in view, but rather from an earnest wish to insure the efficacy of the measure which is now gravely compromised. Indeed, this very subject was taken up early in 1866 by a special Committee of the Social Science Association, and by them provided for in a very carefully drawn Bill, which unfortunately Mr. Torrens, though an active member of the Committee, was unable to adopt as his own.

In a measure, the object of which was to mark for extensive repair or total demolition whole tenements and even streets, it was naturally to be expected that the officer, on whose report such wholesale interference with the rights of property was to be grounded, would be a man removed by his position and qualifications alike from the recklessness of ignorance and from the fear of interested authority. Yet the "Officer of Health" proposed by the Bill might be not only a Medical Officer, but that undefined and undefinable something called a "Sanitary Inspector," or even an ordinary Inspector of Nuisances; his appointment, salary, and removal being subject to the will of the local authority alone. To these men, so peculiarly open to corrupting influences, it was proposed to confide the task of judging whether, to use the words of the Bill (Clause 6) as originally drawn, "any street or any premises therein contained is or are unfit for human habitation, or in a condition, state, or situation injurious or dangerous to health;" or yet again, (Clause 7) whether "any premises are in a state likely to engender disease, and have in fact occasioned disease." All that the strenuous efforts of the Committee could achieve during the passage of the Bill through the House of Commons, was to elicit a written assurance from Mr. Torrens that, after conference with several friends, who like himself were convinced of the importance of the alterations proposed by the Committee, he would offer no opposition to them, provided the Committee could secure their adoption.

What were the amendments proposed by the Committee? In every place without a Medical Officer of Health, to take a Poor-law Medical Officer as an *interim* Officer of Health for the purposes of the Act, his appointment, salary, and dismissal being subject to the approval of the Poor-law Board; it being provided that his special functions should cease on the appointment of a fully qualified Medical Officer of Health. This self-acting arrangement would have secured the removal of every hindrance to the free action of such local authorities, as might at any time feel disposed to adopt and enforce the provisions of the Public Health and Sanitary Acts.

The Select Committee of the Lords perceived the absurdity—which the authors of the Bill did not seem fully to apprehend—of broadly declaring the competency of uneducated and unqualified men to exercise such powers as those meant to be entrusted by the Bill to the Officer of Health, and struck out "Inspectors of Nuisances" from the Interpretation Clause. They left, however, "Sanitary Inspectors," seemingly under the impression, as conveyed by Lord Chelmsford's remarks on bringing up the Report of the Select Committee's amendments, that these were Medical Officers of some kind or other—a striking commentary on the impolicy of using undefined terms in Acts of Parliament. Yet it was repeatedly and earnestly pointed out to the Lords' Committee that these were men with no necessary or defined qualification; and that in no previous Act had an unqualified man been pronounced fit for the responsible and delicate duties of an Officer of Health. The Committee desire to draw special attention to the fact that, in all the Acts relating to the Public Health, from the Towns Improvement Clauses Act, in 1847, to the Public Health (Scotland) Act, in 1867, the line of demarcation between the qualified and the unqualified, the Medical Officer and the Sanitary Inspector and Inspector of Nuisances, has been deep and strong. Now, for the first time, during these twenty-one years so prolific in Sanitary Statutes, has that salutary distinction been obliterated by the Act which received the Royal assent on the 31st of July. A last attempt to remedy this great evil was made by Mr. Percy Wyndham, while the Commons were considering the Lords' Amendment. At the instance of Mr. Ernest Hart, whose efforts to secure the adoption of the Joint Committee's Amendments have been unwearied, Mr. Wyndham moved, the substitution in the Interpretation Clause of the words "Poor-law Medical Officer" for "Sanitary Inspector"; when the Lord Advocate objected that the state of the Law in Scotland rendered the retention of those words essential. The Joint Committee, while denying the accuracy of this statement, considered it conclusive of the necessity of including Scotland in the Royal Commission of Inquiry.

Within a few weeks or months from this date, every town with 10,000 inhabitants will be compelled to appoint a so-called Officer of Health, not for general sanitary purposes, but for the purposes of this Act. And these men, unless the Home Secretary exercise a vigilant control which cannot be expected of him, will probably be uneducated and unqualified men; for be it remembered, the meaning of the term "Sanitary Inspector" is nowhere defined in any Act of Parliament. It appears, however, that if the qualifications of these Officers may be small, their powers will be smaller still, as the Act permits them only to "inspect" premises, but, as was pointed out to its promoters, gives them *no power of entry*.

But while they deplore this serious retrograde movement, so sadly at variance with the uniform tenour of all our past sanitary legislation, the Joint Committee cannot entertain a doubt of the ultimate triumph of the great principles, which have long commanded the entire assent of the two great Associations which they have had the honour to represent during the past year. Nor, while resigning the trust reposed in them, can they believe that this defect will cause the Associations to falter in their convictions, or to relax for a moment their endeavours to secure that health and welfare of the people, which is the supreme law of a Christian community, or to unloose the ties that have bound them together in so pleasing and so beneficent a brotherhood. And they are fully persuaded that, while engaged in the honest search after truth, and while seeking with a single eye to obtain trustworthy returns of prevailing diseases, to make our records of mortality the means of arresting the hand of the secret murderer, to make scientific medicine far more than it has ever yet been the handmaid of justice and the avenger of crime, and to rescue myriads annually from an untimely grave; the difficulties that now seem formidable will gradually disappear, and present differences of opinion will melt away into a complete and cordial agreement.

Signed in name and by appointment of the Joint Committee,

J. P. KAY-SHUTTLEWORTH, H. W. ACLAND,	*Chairmen.*
WILLIAM CLODE, A. P. STEWART,	*Hon. Secretaries.*

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE annual meeting of the Medico-Psychological Association was held at the Royal College of Physicians on August 4th, Dr. Sankey being president for the year. After a short address from the retiring president, Dr. Lockhart Robertson, the chair was taken by Dr. W. Sankey, who delivered to the meeting an instructive address on the present condition and future prospects of psychological medicine. Dr. Laycock of Edinburgh was elected president for the next year, and it was decided that the place of meeting should be York. A long, desultory, and unprofitable discussion as to the mode of election of president occupied the morning meeting, and it was finally resolved, "that the proposed candidates should be duly nominated and seconded at the general meeting, and that the voting should be by ballot." An important resolution was carried, sanctioning quarterly meetings of the Association for the purpose of scientific discussion. At the afternoon meeting, Dr. Laycock read an elaborate paper entitled, "Suggestions for the better Application of Psychological Medicine to the Administration of the Law," in which he criticised at length the legal views of insanity, and advocated the adoption of means for preventing the propagation of lunacy and crime. After some discussion, a Committee was appointed for the purpose of taking such steps as might seem best to impress upon the Government the unsatisfactory relations at present existing between psychological medicine and the administration of the law. Dr. Kirkman moved a resolution that "medical superintendents of county asylums should be entitled to a compulsory pension at the end of their services, instead of the matter being left to the option of the magistrates;" but the question was referred, after considerable discussion, to the consideration of a Committee.

In the evening, some of the members and their friends dined together agreeably at Willis's Rooms, Dr. Sankey in the chair. A general feeling of regret prevailed that the day of meeting had been so fixed as to coincide with the meeting of the British Medical Association at Oxford.

THE ANNUAL MUSEUM AT THE OXFORD MEETING.

A NEW and interesting feature of the late Oxford meeting of the Association was the Annual Museum. It originated in a suggestion made in this JOURNAL by Mr. Jonathan Hutchinson a few weeks ago; viz., that an exhibition of objects invented or collected during the year—a museum which should, in fact, show "the cream of the year's progress" in medicine and surgery—could hardly fail to be of great practical value to visitors attending the meeting. The local officers of the Association at Oxford immediately took up the suggestion; and their efforts, aided by the prompt and active cooperation of Mr. Hutchinson himself, resulted in a fairly successful realisation of his scheme. The exhibition was held in one of the lecture-rooms of the University Museum. Being the first of its kind, and brought together at short notice, it was not rigidly limited to objects collected or invented during the year. Exceptions were especially made where series of objects, some old, some new, but mutually illustrative, could be placed together. Every specimen was labelled with a clear, concise description. On the whole, the experiment was a success; though, of course, the *impromptu* character of the arrangements precluded that development and organisation which may be looked for at future meetings.

The objects contributed from various quarters on this occasion came under four heads—

1. Pathological Drawings, Preparations, Wax Models, etc.
2. New Instruments and Appliances in Medicine and Surgery.
3. Drugs and Articles of Medical Diet.
4. New English and Foreign Medical Works.

The Pathological Drawings were the most striking features of this exhibition. The great majority of them were contributed by Mr. Hutchinson himself, as illustrative of various interesting points in the pathology and diagnosis of syphilis and skin-diseases, and were not less admired for their artistic beauty than studied for their practical instructiveness. Syphilis was chiefly illustrated by Mr. Hutchinson in its rarer *external* manifestations, primary and secondary; while the drawings of Drs. Hermann Weber and Hughlings Jackson figured the same disease in *internal* organs. The department of skin-diseases contained two drawings and some wax models of that peculiar and rare disease, morphœa (Addison's keloid). The drawings in question were of cases in which the scleriasis was exactly limited to one-half of the face, exemplifying, as in herpes zoster, the influence of the fifth nerve in the localisation of diseased processes. We noticed also some beautiful drawings of molluscum contagiosum—in particular, one of a case in which the contagion had taken place between the mother's breast and the infant's face. One of the tubercles on the mamma had ulcerated, and closely simulated a hard chancre. The rarer forms of herpes zoster, pediculi-eruptions, eczema, scabies, and erythema, were instructively illustrated by a series of portraits from various sources. Some of the drawings showed well the occasionally close anatomical resemblance between certain essentially different diseases, as, for instance, between erythema circinatum, a serpiginous form of ringworm, and tertiary syphilitic eruption. The application of Photography to pathological purposes received good illustration from several contributors, especially from Dr. Allbutt of Leeds in the department of skin-diseases; and from Mr. Hutchinson, in a series of stereoscopic portraits. Dr. Morell Mackenzie exhibited (for Dr. Turck) a beautiful series of coloured drawings of diseases of the larynx; Mr. Hinton, a series of illustrations of the pathology of the internal ear; Mr. Lund of Manchester, showed a probably unique specimen of congenital malposition of the external ear from a child aged about 2½ years. The auricle was placed in the middle of the left cheek, the natural position for it being quite smooth, and the skin perfect. The zygoma and the temporo-maxillary articulation of the same side were wanting, and there had likewise been a fissure at the left labial commissure, a hare-lip, and a cleft-palate. The misplaced ear, on removal, was found to contain traces of a cartilaginous meatus, tympanic bone, membrana tympani, and vesicles; as if, in the progress of growth, the primoidal cell representing these portions of the auditory apparatus, had slipped away from its attachment and fixed itself in this abnormal position. Dr. Peacock, Mr. Vincent Jackson, and others, exhibited various pathological specimens and drawings of high interest.

It was scarcely possible to look through such a collection, even cursorily, without either adding to one's knowledge of the diseases in question, or refreshing one's recollection of them.

There was no lack of novelty and interest in the exhibition of Instruments. We would notice very briefly a few of those exhibited by members of our own profession. Dr. J. W. Ogle showed a dynamometer and an æsthesiometer for testing the loss or gain of power and sensation in paralysis and other states; an instrument with screw-adjustment for keeping open a tracheotomy-wound; and a Middeldorff's harpoon for extracting bits of muscle in search for trichinæ—the characteristic of all these instruments being their small size and extreme simplicity. Dr. Warwick of Richmond exhibited a new form of endoscope; Dr. Heywood Smith, a portable induction apparatus (Trouvé's *trousse électrique*)—battery, coil, etc., all packing into the compass of an ordinary surgical pocket-case, and yet no toy; Dr. Sansom, a demonstrating microscope for class purposes; Dr. B. W. Richardson, an inhaler, an ether-spray apparatus, a series of anæsthetic compounds, together with several other objects of great interest; Dr. Althaus, a set of instruments for the electrolysis of tumours, and for applying galvanism to the œsophagus and prostate; Mr. Teevan, various urethral instruments; Mr. Coleman, an apparatus for economising nitrous oxide gas by re-inhalation.

"The trade" also contributed several novelties in the way of instruments and appliances. In noticing a very few of these in our limited space, we emphatically disclaim any intention to disparage the merits of the rest. Messrs. Ferguson showed, *inter alia*, a new mouth-opener, with some hare-lip and cleft-palate instruments, by Mr. T. Smith. Mr. Coxeter exhibited a Clover's apparatus for inhaling chloroform and nitrous oxide gas; Adams's spray-producer, a cheap, simple, and efficacious apparatus for inhalation or other purposes; a magneto-electric machine with direct negative and positive currents; a new compound hook and ring for an artificial arm socket; with several other instruments. Messrs. Krohne and Sesemann showed a Junker's apparatus for general and local anæsthesia, Beigel's pneumatic enema, various forms of spray-producers, galvano-caustic instruments for laryngeal and other tumours, etc. Messrs. Meyer and Meltzer showed an inhaler and a gas-cautery forceps by Clover, inhalers by Dr. John Murray and others, Hinton's demonstrating auroscope and endoscope combined, various tracheal and laryngeal instruments by Dr. Mackenzie and Mr. Evans, and uterine instruments by Dr. Marion Sims and others.

Among the articles of Medical Diet were several good farinaceous preparations from Chapman, and some unusually palatable diabetic biscuits from Hill and Bonthron. Mr. Morstatt exhibited a series of medicated soaps.

An extensive series of valuable new English and Foreign Medical Works were contributed by Messrs. Macmillan and Co., James Walton, Hardwicke, Lewis, Baillière, and the New Sydenham Society.

We append some remarks which have been forwarded to us by Mr. Jonathan Hutchinson, the originator of the Museum.

"Our Oxford experiment may, I think, be considered to have been a success, with certain drawbacks. As it had, however, been got up in a hurry, almost *impromptu*, one cannot be surprised at its shortcomings. Of its success, I think we may assert that it was sound; that it gave proof that the thing was wanted, and is likely to live. Of its imperfections, we may say that they were the result of haste and inexperience, and may easily be remedied in future. At Oxford, the scheme had the advantage of the cordial cooperation of those in authority on the spot. Dr. Acland, Dr. Gray, and Dr. Tuckwell did everything in their power to ensure its success. No one, however, could tell beforehand what the exact character or size of the exhibition would be. It turned out a much larger collection than we had expected; and the space accordingly proved very inadequate, and the objects were greatly crowded. Then, again, the room itself—a lecture-room in the gallery of the magnificent University Museum—was too far from the other work of the Association, and was difficult to find.

"With the experience of last week fresh in my mind, I may venture a few memoranda for our guidance at Leeds in August 1869.

1. We ought to have a large room or rooms, with abundance of tables and of wall-space. In reason, the larger the room, the better. The objects exhibited should be grouped; and, as the grouping must necessarily be done in a hurry, there is nothing like having plenty of room to do it in. In each department, there should be room to add at a moment's notice, as new objects are brought in; for, however much of early preparation is made, it is certain that many members will prefer to bring their contributions *propriâ manu*, and will bring them late. There ought to be room also, not only for the wide division of subjects and the adequate display of all, but also for chairs, and for pens and ink for note-takers. Room also is wanted in order that discussion or conversation may go on, or explanations be made, without inconvenience to others. It is exceedingly desirable that exhibitors should have every encouragement afforded to come frequently to their tables, and

explain to their friends or others the special points in their specimens, instruments, etc. Written labels will do much; but a few words of *viva voce* explanation are often invaluable.

"2. The room should be, if possible, in the same building as that in which the sections meet. It is essential that the room should be central. It should be so placed that a member waiting for a paper to come on could use it as a lounge, and thus profitably employ minutes which might otherwise be wearisome. A central situation would also allow members to go in and out at pleasure, and to examine the separate departments leisurely. As our exhibition is to present a sort of epitome of a whole year's work, it ought to be worthy not merely of *coup d'œil* inspection, but of detailed examination; and for this every facility should be given.

"3. There should be a few paid officials on the spot—one or two label-writers, a porter, etc. For these the Association ought to pay. It would be a great advantage, if, in addition to an adjacent room for unpacking, etc., there could be a small room for use as an office. The preparation of the room, etc., should begin a week beforehand.

"4. A good, short, but descriptive catalogue should be prepared and printed before the beginning of the meetings. It might even, perhaps, with advantage, be sent out to all members of the Association.

"5. It might be well, in some instances, to specify beforehand certain subjects which it is wished to specially illustrate, and invite the production of specimens. For instance, the precise character of the fracture known as Colles's is yet the subject of much dispute, which arises chiefly from the fact that but few of our museums possess recent specimens, and none of them any large number. Now, I have no doubt that the members of our Association, working together, and bringing up their specimens, one from one place, and another from another, might place on the table such an amount of pathological evidence as would settle for ever the questions most in debate, both as regards its nature and its best treatment. The results of hare-lip operations by the new and the old methods is a subject which, by the aid of photography, might be illustrated in a most instructive manner. It would be easy to mention twenty others; but I give these merely as examples. On the medical side, such subjects as the pathology of Addison's keloid (morphœa), of cicatricial keloid, of Basedow's disease, and of syphilitic affections of internal organs, might each receive a flood of light by the collection, through combined effort, of a considerable group of facts. In one or two of these subjects, important work was done at our last week's meeting.

"It is, perhaps, possible that it may be found a convenient plan to have one or two 'Museum Lectures' put into the programme of our meetings, to be given either by exhibitors of important series of subjects, or by some one appointed to survey and appreciate the whole, who should choose for remark and explanation what seemed most interesting.

"That there will be a large exhibition next year, I think there is no doubt. If the scheme be well organised, we shall probably have contributions from all quarters—from the continent and from America, as well as from all parts of our own islands. It might be well, perhaps, even thus early to appoint a few local secretaries in our several capitals, who should undertake the care of its interests, and receive contributions for it. By their aid, many interesting objects might be secured, which would otherwise not come to us; and much expense to individuals in carriage, etc., would be saved.

"I may record my own experience by simply stating that from the objects brought to our room I have gained information which I could have got nowhere else, and which would have fully repaid me for a far longer journey and much greater loss of time. Nor is this solid gain the less valued, because it will always be associated in memory with a variety of other intellectual benefits and a crowd of social pleasures enjoyed at our Oxford meeting."

HOSPITALS AND ASYLUMS IN FRANCE.—The number of hospitals in France is said to be 337, and of *hospices*, including asylums for the aged, infirm, incurable, orphans, and foundlings, 199, besides 734 establishments which are at once hospitals and asylums, making a total of 1,270, whereas, in 1805, the number was 1,920; this diminution being the result of improved organisation. The average income of these establishments amounted to about 20,000,000 *francs* at the end of the past century, but at present it is nearly triple that sum. The budget of Paris includes 44,000,000 *francs* for charitable purposes, of which 9,000,000 *francs* are devoted to the hospitals, and the remainder to the relief of the indigent; of this latter about one-third is collected by charitable societies, which number more than a hundred. In 1789, the number of persons in asylums was stated at 40,000, but they contain double that number at present, while the sick in the hospitals has risen since the same date from an average of 25,000 to 90,000.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XXII.

THERE is an important morphological difference as regards the disposition of the intestine in the different groups of Mollusca. In the Branchio-gasteropoda, the first important flexure of the intestine, after leaving the stomach, is towards the heart—it is a hæmal flexure. In the other three divisions, it is towards the pedal ganglia—it is a neural flexure. Except in the Lamellibranchiata, an Odontophore is always present at some period of life. This organ consists of a cartilaginous cushion, over which plays, by alternate muscular contractions, a fibrous band, called the lingual ribbon; the latter is beset with transverse rows of chitinous teeth, the arrangements of which afford good zoological characters. Sometimes (*e.g.*, in the Snail) there is a horny, vertical, so-called jaw. Sometimes there are two such structures placed laterally. In the Cephalopoda, the well known horny beak is like that of a Parrot, but reversed.

In many Branchio-gasteropods, there is a proboscis (*e.g.*, in the Whelk), which is usually hidden and enfolded, but can be everted by the compression of the fluid contents of the body. The true mouth is then seen at the end of this organ, which is retracted by complex muscles described by Cuvier. In some (*e.g.*, in Solen), a curious body, of unknown function, termed the "crystalline style", projects into the stomach, which is generally a simple cavity; but sometimes, especially in the hermaphrodite Branchiogasteropoda, is divided into as many as four compartments. There is in some a crop, as in the Whelk; and salivary glands are frequently present. In the Nudibranchiate Gasteropods, two canals proceed from the posterior part of the stomach, and each of them radiates in an arborescent manner. Their nature is probably hepatic. The liver in the Mollusca generally, is a considerable structure communicating with the intestine or stomach. In the Cephalopoda, it is exceptionally solid.

Often a gland which opens in the neighbourhood of the anus has a strongly coloured secretion. In the Dibranchiate Cephalopoda, there is an ink-bag, the contents of which, when expelled, so colour the surrounding water as to facilitate the escape of the animal. In Octopus, this bag is imbedded in the liver.

The organs of circulation are well developed in the Mollusca. The heart always consists, at the least, of two auricles and one ventricle; in the Lamellibranchs, it is traversed by the intestine. The arteries are well developed; but the venous system is lacunar, there being no true veins. This is well seen in such a transparent form as Atlanta. The heart of the Cephalopods is essentially the same as that of the other Mollusca; the auricles being represented by branchio-cardiac trunks.

The organs of respiration vary; generally lamellar in the bivalve molluscs, they are tree-like in the Cephalopoda, and more or less so in most Branchio-gasteropods. In the Cephalopoda, the gills themselves are contractile; and at the root of each is a contractile venous dilatation, or so-called branchial heart. In certain Branchio-gasteropoda, and in the Pteropoda, true gills are wanting, the lining of the mantle being the only respiratory surface; and this brings us towards the Pulmogasteropoda, in which the mantle cavity is modified for aërial respiration.

The renal organ is the structure which has been called the "organ of Bojanus." This, in Anodon, and probably in Lamellibranchs generally, is a folded tube, partly thin-walled, partly thick and glandular. It opens at one end into the pericardium, at the other on the surface of the body. Now the pericardium has certain of the venous channels opening into it, and thus a direct communication is established between the blood-system and the surrounding medium. This provision for a rapid increase or diminution in the quantity of fluid contained in the body is probably related in the protraction and retraction of the foot. An essentially similar structure exists in the other forms; but, in the Cephalopods, the sac which contains the renal organ has not yet been proved to communicate with the vascular system.

The nervous system is fundamentally the same in all Mollusca, and consists of three pairs of ganglia: 1, cerebral; 2, pedal; and 3, parieto-splanchnic. The cerebral ganglia are connected by a commissure, which lies above the gullet. Each cerebral ganglion is connected by a nervous cord both with one of the pedal and one of the parieto-splanchnic ganglia. In some, the parieto-splanchnic ganglia are closely approximated to the pedal ganglia, and altogether fused with them in the Cephalopoda, where the nervous system attains its maximum of concentration in the Mollusca. In this group, also, a cartilaginous structure (comparable to a very imperfect skull) supports the cerebral ganglia. This exists in a still more rudimentary condition in some Gasteropods.

THIRTY-SIXTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in OXFORD, August 4th, 5th, 6th, and 7th, 1868.

SECTION MEETINGS.

THE following are abstracts of some of the papers read in the sections.

A. MEDICINE.—President, Sir WILLIAM JENNER, Bart., M.D., F.R.S.; Secretaries, E. LONG FOX, M.A., M.D., and W. ROBERTS, M.D.

On the Synchronism of Variola and Vaccinia. By ROBERT PRINGLE, M.D.—In bringing this subject before the Association, the author pleaded as his excuse the fact of its having fallen to his lot to see many cases of what, in the absence of another and better term, he called the synchronism of variola and vaccinia. After describing the circumstances under which the cases were met with, and which he considered to be the cause of their numbers, Dr. Pringle drew the following as his conclusions from the long array of 110 cases, which he had tabulated, as having occurred in 1865, and which he laid before the meeting, viz.,—1. That vaccination may be successfully and beneficially performed at any time when variola is imminent, subsequent to the febrile and and prior to the papular stage of that disease; and 2. That vaccination, where thus had recourse to, will reduce the rate of mortality from 40 or 50 per cent. to nearly 6½ per cent., as shown by the cases he had tabulated. Dr. Pringle further pointed out that, in all the cases of this synchronism which he had personally inspected, at the various stages of both diseases, he could not, though he searched for it, detect any modification in either disease; and the only modification which he witnessed, was, as said before, in the rate of mortality. The author also remarked that he had in the two years 1866-7 subsequent to that, viz. 1865, in which these cases were met with, seen several additional instances of this synchronism; and though he had hesitated to bring the subject before the profession, on the experience of a single year, yet, the two following tending only to substantiate his conclusions, he now felt he could do so, supported by the observations and cases of three years.

Intemperance as a Factor in the Production of Epidemic Disease. By R. MARTIN, M.D.—It is of the greatest importance that the amount of force exerted by certain malific agencies, on the public health should be ascertained. Two remarkable examples, showing the potency of intemperance, are presented in the sanitary annals of Edinburgh and Liverpool. In the case of the former, as pointed out by Dr. Christison in his address at the Social Science Congress of 1863, an extraordinary diminution in the number of typhus cases occurred in 1854, in that city, the cause thereof being really unknown, since there had been no improvement in drainage, etc. There was however, in consequence of the enforcement of the Forbes Mackenzie act, an extraordinary declension in intemperance. In Liverpool, in the face of great sanitary improvement, there was an outburst of typhus. Just prior to this there had been an enormous increase in intemperance, in consequence of the adoption of the Free Licensing system. This system was an operation for four years; all that time intemperance raged, epidemic disease raging equally. In 1866, the new system was abolished, and an opposite policy enacted. Almost immediately the death-rate, which had reached the unprecedented height of 64 per 1,000, began to decline, and soon became lower than it had been for years. Thus in cases of an opposite character, the potency of intemperance as a factor in the production of disease, was unmistakably proved.

Ipecacuanha in Emetic Doses as a Stimulant, Restorative, Eliminative, and Adjuvant, in various Cases of Disorder and Diseases. By JOHN HIGGINBOTTOM, Esq., F.R.S.—The author inferred that the interests and advancement of the profession could not fail to be greatly promoted by a long, careful, and practical investigation of a single therapeutic agent. He was of opinion that emetics were much less used than formerly. Ipecacuanha, besides its specific properties as an emetic, expectorant, and diaphoretic, had other valuable properties which he believed had not been particularly noticed by the profession. He had constantly, for more than half a century, administered ipecacuanha in English cholera, fevers, erysipelas, neuralgia, periodical drunkenness, uterine hæmorrhage, complaints in old age, syncope, senilis, etc. The main efficacy of ipecacuanha is in stimulating and restoring the normal action of the capillary system.

The Pathology and Treatment of Acute Capillary Bronchitis. By J. K. SPENDER, M.B.—He noticed, first, the distinct nosological entity of this very fatal disease. The three symptoms specially entitled to clinical study were—the abnormal pulse and breath ratio, with the intense dyspnœa; the character of the sputum, which was partly a true exudation, and partly an effusion from the bronchial veins; and the condition of so-called collapse, with the quasi-cyanosis of the skin. The diagnosis from acute tuberculosis is not always easy at the first glance. The treatment recommended was by small and very frequent doses of alcohol and sesquicarbonate of ammonia, alternating with each other; and as much fresh milk as could be taken. A warm moist atmosphere is of the highest use. Tonics are necessary during the convalescent stage. Any treatment is useless which is not begun very early.

On the Importance of Obtaining Correct Comparative Observations in Estimating the Influence of Light in Health and Disease; illustrated by the Actinograph. By HORACE SWETE, Esq.—After discussing the importance of light to vegetables and animals, and showing the threefold division of light into visual, actinic, and calorific, Mr. Swete exhibited and described an instrument he had constructed, in which a sensitised paper-ribbon was passed by a simple clockwork movement by a chink of light one-tenth of an inch in width, at the rate of five minutes for each tenth; thus the amount of actinism present in each hour was represented by a shaded tape of little more than in inch in length, and compared with a test standard of tint. The author exhibited actinograms produced by the apparatus, and showed the importance of constructing model lodging-houses and dwellings for the poor with sufficient light, so as not to sacrifice the amount of actinism necessary for health to the lattice-panes and architectural windows of the darker ages; and concluded his paper by stating that he would spare no pains to perfect his instrument during the remainder of the year, hoping that some of the associates would unite with him in taking coincident observations in various localities.

On the Limits of Alcoholic Stimulation in Acute Disease. By W. T. GAIRDNER, M.D.—The purpose of this paper was to recommend a very much lower scale of administration of wine and spirits than has been usual of late years in acute disease. The author especially condemned the practice, and also the theoretical views leading to the practice, of the late Dr. Todd. He explained, in answer to certain criticisms, that this discussion involved no disrespect to the memory of a justly distinguished physician; but that the views adopted by Dr. Todd had been so strongly maintained, and so largely influential, as to make it absolutely necessary to bring them under review in any general statements upon the subject. Dr. Gairdner hoped that the pupils of Dr. Todd present at the meeting would correct him if he, in any degree, overstated or misstated what Dr. Todd's opinions and practices were. The author then alluded at considerable length to the evidence already in part published, and now further extended, that typhus fever could be treated, not only safely, but with a diminished rate of mortality, when stimulants are used very sparingly, and (in the majority of cases) altogether withheld. He did not, however, argue for the disuse of stimulants as remedies; but for their administration upon a much lower scale, and with a quite different object in view from Dr. Todd and others, who had advocated very high doses. The arguments advanced in this part of the communication had necessarily to be stated in a very condensed form, and, indeed, the paper, as written, with the details of evidence, will, we believe, be published at no distant date; so that we shall, in the meantime, best fulfil the object in view by giving insertion to the following brief concluding statement. The author, after dealing with the case of typhus fever, and extending the argument to acute disease in general, contended that the fair analogies deducible from the facts, and the gradually and insensibly acquired experience gained from watching individual cases of general acute disease, concur in rendering probable most of the following inferences.—1. The importance of proper nourishment and sustenance in febrile cases is very great; and nothing can be worse than the old, and now happily exploded, system of depletion and starvation. But it is not less an error to conceive of alcoholic stimulation as a proper substitute, in such cases, for ordinary food. Milk is the normal food of most persons in acute disease; and there are very few persons, even in severe fevers, who cannot receive it to the full extent of their powers of assimilation; but most of the other simpler elements of an ordinary diet may be employed with advantage in particular cases. Beef-tea (so much favoured by Dr. Todd, in conjunction with alcohol) is of very inferior nutritive value, and, therefore, of altogether secondary importance to milk; and, further, beef-tea very often disagrees with the stomach, when milk and farinacea can be freely taken. In enteric cases, beef-tea has been found occasionally to increase the diarrhœa, and it is usually to be avoided, or very cautiously given, on that account.—2. The proper mode of administering food in cases of febrile disease is to imitate, as closely as the condition of the patient admits, the usual practice in health; and most patients, even in severe fevers, retain so much of the habits and functions of health as to enable them to digest a good deal of simple food, conveyed into the stomach at proper intervals, and with sufficient intervals of rest to allow of a return of the desire for food in some degree before again giving it. To give brandy and beef-tea every hour or half-hour, and to continue this practice for days and nights together, even wakening up the patient (as is recommended by Dr. Todd) in order to give him his food and stimulant, is the surest of all ways to destroy whatever remains of natural appetite, and to derange altogether the already much weakened function of assimilation. In a few almost desperate cases, where the power of swallowing is nearly lost, it may be advisable to give food at much more frequent intervals during waking hours than in other cases; but rarely, if ever, to disturb the patient when asleep.—3. The proper use of alcoholic stimulants in cases of acute disease, is nearly the same as in other cases, or in comparative health; viz., to quicken and develope the appetite for real food, and the power of assimilating it. The proper and normal time, therefore, for giving these stimulants in fevers is *along with the food*, *i.e.*, at the *regular* meal times, and *not* during the intervals; except in cases where the nervous system is much disordered, and where a moderate dose of the stronger stimulants may sometimes be of great use in procuring sleep.—4. The proper dose of alcoholic stimulant, and also the proper kind of stimulant, to give in each case, is subject to considerations derived much more from the age, sex, and previous habits of the patient, than from the severity or character of the fever. It is an error to suppose that patients affected with very severe symptoms of acute disease are capable of tolerating indefinitely greater amounts of alcoholic liquors than can be given in milder cases, or even to the same persons in health. It is even probable that, in some cases, the susceptibility to over-stimulation is greater in fevers than it is in health. At all events, it is usually a practical error to carry stimulation much beyond the line above generally indicated.—5. In most cases of young persons, and in very many adults not accustomed to the daily or frequent use of alcoholic liquors, these ought not to be given in quantity, or even at all, without the most clear evidence of their being really required. The effect of each dose should be carefully watched, and *it is almost always safer to withdraw the stimulant entirely for a period of hours, than to run the risk of over-stimulation*. It is almost certain, from facts already observed, that, in young persons, the mortality of fevers is greatly increased by the *continuous* administration of alcoholic stimulants, even when the more striking or obvious symptoms of over-stimulation do not become apparent.—6. The effect of stimulants moderately and judiciously used, in certain critical states of acute disease, is to restore and refresh the patient, to favour natural sleep, to lower the rate of the pulse, to quicken the appetite, and increase the power of assimilating food. The effect of stimulants continuously or immoderately given is to destroy the appetite for food, to produce torpor, to give rise to more or less profuse sweating, to dry the tongue, to prolong the febrile debility, and to protract the crisis. There is reason to think that, in typhus fever, the normal crisis may be delayed for several days by the constant administration of brandy, after the manner recommended by Dr. Todd.—7. In the self-limited fevers, in which the phenomena of the crisis are well known, and in which the course of the disease may be easily defined and anticipated, it is usually requisite to be very sparing of stimulants in what may be termed normal cases, because in these the disease is to be recognised as running a definite course; while any considerable excess has a tendency to convert the case into an abnormal one, and to postpone the crisis. It has already been sufficiently indicated that, in the opinion of the author of this communication, alcoholic stimulants rank with drugs and medicines rather than with food. The same minute knowledge of the course of fevers which induces a well educated modern practitioner to abstain from constantly drugging his patient, will also, in most cases, lead him to abstain from stimulation. And, on the whole, it may be confidently anticipated, as a result of improved consideration given to the subject, that the profuse and continuous administration of alcoholic stimulants, with a view to alimentation in acute disease, will ere long be abandoned as inconsistent with an enlightened physiology and a sound practice. While stimulants will continue to be prescribed to the sick, on the same principles and for the same ends as causes them frequently to be taken with refreshing and beneficial results in comparative health, their function in acute disease will more and more come to be recognised as a strictly limited one; so that continuous administration, or administration carried out to such doses as twenty-four, thirty-six, or forty-eight ounces, in the twenty-four hours, will be abandoned, as involving an error in principle, and serious danger to life in actual practice.—8. A subordinate, though still a very important, consideration bearing upon such profuse and continuous stimulation as is above referred to, is that very liberal doses of wine and spirits, given habitually under medical advice, tend to give a wrong bias to public opinion; and (even apart from the grave moral consequences arising from the abuses of alcoholic liquors) tend to involve the whole medical practice of the country in a system of unnecessary, and therefore wasteful, expenditure. It is as nearly as possible a demonstrated fact, that much of what is spent in wines and spirits for the sick in hospitals (and, therefore, probably also in private practice) is unnecessarily, if not injuriously, spent. The more exact evidence of this statement is deducible from the observation of typhus fever; but there is reason to believe that what is true of typhus fever in this respect may with almost equal confidence be affirmed of most other acute diseases. At all events, typhus fever, as it occurs in Glasgow, almost always among the poor, and often among the most ill-nourished, debilitated, and dissipated classes, is the very type of a disease which would appear to require the highest doses, and the most frequent and liberal administration, of alcoholic stimulants. Yet it has been clearly shewn that typhus fever in Glasgow, may be treated, *with a diminished mortality*, with the aid simply of milk-diet and careful nursing; alcoholic stimulation being deliberately maintained upon a scale so low as to make it quite an exceptional, and therefore purely therapeutic, agent. In the City of Glasgow Fever Hospital, the careful and most scrupulously watched experiments of Dr. J. B. Russell* have led, almost insensibly and without any fixed plan, but *with an increased success as regards results*, to lower from year to year the scale of stimulation *on the whole*, until last year the calculated amount of absolute alcohol administered in the form of wines and spirits to each patient, on an average, during each day of the treatment, was less than *one-sixth of an ounce* (0.1630 ounce); and the expense of this quantity was little more than three farthings, while the entire bill for wines and spirits consumed during a year in which 969 cases of febrile disease (mostly typhus) were under treatment was £34:5:6. The mortality of typhus (including all the cases admitted moribund) during the same period, was, in this hospital, only 9.05 per cent.; being the lowest ratio of mortality, I suspect, that has ever been attained in the treatment of so large a number as nearly a thousand cases, accurately distinguished as genuine typhus.

Dr. ANSTIE considered the cases quoted from Dr. Todd's practice exceptional. He denied that Dr. Todd's pupils used alcohol very largely in all cases. The action of alcohol as a food was proved by temperature, by the effects of alcohol in delirium, and by its diminished excretion in the urine. It saved vital force. Cases varied very much in their requirements for alcohol.—Dr. BATEMAN stated that alcohol, in conjunction with raw meat, had been proved to have been a valuable food in advanced phthisis.—Dr. FLEMING said that alcohol was favourable so far as it favoured assimilation; but that it was sometimes a local irritant to the gastric mucous membrane.—Dr. HENRY KENNEDY said that alcohol as alcohol was never given, but in the form of either whisky or wine. He denied that maculated typhus was the same disease in Dublin, Glasgow, and London. In Dublin, extreme stimulation is not practised. Wine is a complicated fluid, composed of elements, all of which are useful to the frame; and this utility is both stimulant and nutritive. Statistics were very unsatisfactory as to the giving of stimulants; and, in spite of Dr. Gairdner's statistics, wine is often useful in children.—Dr. MOORE (Dublin) treated each case on its own merits, as each case differed in its requirements. Delirium very early in typhus was a formidable symptom, and demanded increased stimulation.—Dr. STOKES said the real question was, how we might best treat fever in this or that epidemic, as fever varied at different times in its effects with remedies. Was wine useful, and under what circumstances was it useful? was the main question for physicians. We did not know how to explain the action of any remedy; but, by analogy, as fever was a disease of periodicity it was natural to suppose it was the effect of some poison, which would be eliminated in a certain time, during which the patient would be liable to various modes of death, as from asthenia, complications of internal organs, etc. We could not cure fever; all we could do was to try and obviate the tendency to death. The main point was to know when to add or to diminish stimulants. Many other foods, as well as wine, were useful in obviating this tendency to death.—Mr. STEELE (Liverpool) said that stimulants were not remedies for fever. Sir D. Corrigan's rule was a good one: "Discover the chief lesion; if this be vascular, stimulate; if it be of the nervous centres, stimulation can do no good, unless sleep be first obtained." In the epidemic of 1849 at Liverpool, the mortality was great, and stimulation was not much used; but many cases recovered without any medical treatment.—Dr. T. K. CHAMBERS had two rules: 1, where there is delirium, generally give stimulants; 2, where wine helps assimilation, give it.—Dr. OGLE (Derby) gave stimulants when the tongue was furred and sordes appeared on the teeth, and generally whenever there was delirium.—Dr. HAUGHTON stated that in the Longford Infirmary no stimulants were given.—Dr. GAIRDNER, in reply, stated that he was no bigot on this question. He admitted that epidemics varied in intensity; but denied Dr. Kennedy's statement, that typhus was a different disease in various parts.

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* *A Clinical Study of Stimulation in Typhus* (Glasgow: 1867); and *Third Annual Report of the City of Glasgow Fever Hospital*, 1868. The former of these papers is a most elaborate inquiry into the whole subject.

On the Etiology of Phthisis. By Dr. GIMBERT, Cannes.—Dr. Gimbert had repeated M. Villemin's experiments by inoculation. He had been careful to choose very healthy rabbits, and to keep them in good hygienic conditions. In the experiments in which tubercle was most satisfactorily found after inoculation, the temperature did not rise after the first few days, and the rabbits increased in weight. Whilst Dr. Gimbert allowed the facts of the inoculation of tubercle, he pointed out that it differs from the inoculation of a specific virus, as that of glanders or cholera, in that it excites little or no constitutional disturbance. He denied that tubercle is in any sense contagious. Alluding to the distinction drawn by many observers at the present day between tubercle and phthisis, the latter being the result of chronic catarrhal inflammation, he considered that, as the inoculation of material from either condition produces the same result, this is a strong fact in favour of their identity. Speaking of the *caseous condition*, he said it is not a specific state of organic cells; it is met with everywhere, in cancerous tumours, in fibrous, fibro-plastic, and others; the caseous condition is found in their centres, always at the point where the process of osmosis is most difficult.

Dr. TUCKWELL (Oxford) said that Dr. Gimbert had not seen wasting in the animals inoculated, whilst Dr. Wilson Fox and Dr. Sanderson had noticed it as a prominent symptom. He considered that no anatomical distinction can be made between tubercle in man and the results of inoculation in the lower animals. Tubercle in man may be metastatic.—Dr. HENRY BENNET said that want of vital power was at the bottom of all tuberculous affections. Dr. Gimbert's negative results depend on the fact that inoculation was practised by him on very healthy animals, as in such animals the poison may be eliminated. Dr. Bennet's experience of tubercle in his own person followed severe poisoning by a dissection-wound. Dr. Gimbert did not keep his rabbits long enough. Tubercle in man is encouraged by the feebleness of individuals consequent on their being the offspring of old men, or of persons affected with syphilis.—Dr. CAMPS said that Dr. Eade's views had been anticipated by Dr. Thorowgood and others.—Dr. EADE said that, although this was the case with reference to the nervous origin of tubercle, yet he differed from Dr. Thorowgood in considering tubercle as a cell-growth, and not a deposit of poisonous matter in the lungs.—Dr. STOKES mentioned cases seized with symptoms of local suffering in almost every organ in the body in the course of severe typhus, with deposits of miliary tubercle found in all the organs after death.

On some Kinds of Visceral Neuralgia. By FRANCIS E. ANSTIE, M.D., F.R.C.P.—The author had originally intended to sketch out the whole subject of Visceral Neuralgia; but, finding it impossible to do this effectively in a short space, now confined himself to Neuralgias (I) of the Heart, and (II) of the Ovary and Uterus. I. Under the heading of Cardiac Neuralgia, the author included every variety of angina pectoris—*i. e.*, every case marked by attacks of sudden and spasmodic cardiac pain, in the evident embarrassment of the heart's movements, and a subjective sense of impending dissolution. He endeavoured to show that, whatever the degree of organic change present in the heart or vessels, the essential feature of the disease is the element of neuralgic pain, or rather the nervous condition expressed by that pain. In fact, the cases of angina, in which no disease whatever of non-nervous tissues can be detected after death, are often not to be distinguished by their symptoms from cases in which there is extensive ossification of the coronary arteries or of the aorta, or well-marked fatty degeneration of the heart-walls. The author combated the popular idea of the connection between angina pectoris and some lesion of the heart or great vessels. In very many cases precisely similar organic lesions produced totally different symptoms, and proved fatal without anginal spasm; while many cases of true anginal spasm had proved fatal without any recognisable organic heart-disease. The author was further convinced, from his own experience and from recorded cases, that in the great majority of cases the affection was decidedly chronic, with intermissions which were completely characteristic of the neurotic origin of the disorder. In support of this position, three series of facts were adduced. The first series included cases in which the anginal spasms recurred during fifteen or twenty years, and death at last took place from degenerative disease of the nervous centres. The second series of facts pointed to the evidently close relations between angina and ordinary neuralgias, and the intimate connexion between spasmodic asthma and angina pectoris. The third series of considerations included the arguments from hereditary taint. Not only was angina itself frequently a direct inheritance, but anginal patients would be found very frequently to have descended from a race strongly marked by tendencies to the more severe neuroses. The following general conclusions were drawn. 1. The essence of angina is a neuralgic condition, which, by reflex action, may produce either cardiac spasm or cardiac palsy. 2. The tendency to this neurotic condition is constitutional, and nearly always congenital. 3. The various organic lesions from time to time found in anginal patients acted merely as greater or lesser provocatives to the neurotic disorder. In discussing the treatment of cardiac neuralgia, the author dwelt chiefly on the value of the persistent use of arsenic, either by the stomach, or by inhalation of the smoke of arsenical cigarettes; and upon the use of certain neurotic remedies, hypodermically injected. Among the latter, the greatest novelty newly found was the use of hypodermic injections of strychnia, in doses ranging from 1-120th to 1-40th of a grain. The author related instances in which remarkable success had attended its administration in presence of a threatening paroxysm, and its continuance, twice daily, for several weeks. A less potent but still very useful remedy is ether, given internally, in doses of forty to sixty minims. This was simply a palliative, though a very efficient one for the moment. Strychnia and arsenic had higher pretensions. II. Uterine and Ovarian Neuralgia were distinguished from other neuralgias by the frequency with which *peripheral* sources of irritation were the most important factors of the neuralgic state. It would not be correct to give the name of neuralgia to the pain suffered in many cases of dysmenorrhœa, and entirely dependent on the obstruction to the escape of menstrual fluid. There was, however, a truly neuralgic dysmenorrhœa, the subjects of which had an exaggerated sensitiveness of the pelvic organs, and were, besides this, liable to neuralgia of other parts. In the virgin condition, they suffered at every period from frightful pain, unrelieved, or only most imperfectly relieved, in the flux. These young women were usually perfectly apt for conception and child-bearing, and were also evidently benefited by the exercise of these functions. The principal sources of irritation giving rise to uterine or ovarian neuralgia were not always in these organs themselves. Ascarides in the rectum, purely functional leucorrhœa, calculus of the kidney or ureter, scybalous fæces in the rectum, and even the irritations of more distant parts, might produce pelvic neuralgia. One of the most frequent of all exciting causes of uterine and ovarian neuralgia were displacements and flexions of the womb. The pain in these cases, although more or less continuous, was liable to periodical aggravations; the severity of which was largely commensurate with the sensitiveness of the general nervous system. In the treatment of ovarian and uterine neuralgia, temporary and extrinsic sources of irritation must, when possible, be removed. As palliatives, ether in forty to sixty minim doses, and belladonna in one-sixth grain doses of the extract, were very useful. But the subcutaneous injection of morphia, and, still better, of sulphate of atropine, was far more efficacious, and especially more permanent in effect. Sulphate of atropine, in doses of 1-120th to 1-60th of a grain, injected twice daily, and continued for several weeks (carefully keeping within the line of toxic symptoms, and at once reducing the quantity when marked diplopia or dryness of the throat appeared), was sufficient, in many cases, permanently to remove the neuralgic tendency. There were constitutions, however, to which atropine, or indeed belladonna in any shape, was not suitable; and such patients exhibited toxic symptoms even with the smallest doses. Many of these patients proved to be unusually susceptible of the beneficial influence of morphia, subcutaneously injected. After failing to produce good effects, or after producing actual toxic effects, with atropine, the author had several times found that a few injections of one-sixth of a grain of acetate of morphia had produced the best possible result, the pain altogether disappearing.

Dr. GAIRDNER agreed with Dr. Anstie, that we should look on visceral neuralgia as a neurosis.—Dr. LEARED treated angina with arsenic, from having seen the great advantage of giving arsenic in gastric neuralgia.—Dr. H. KENNEDY mentioned some cases in which angina alternated with natural eruptions. Angina occurred in gout. He treated the attack by dry cupping over the heart.—Dr. SIMMS thought arsenic a hazardous treatment. A patient under care was at rest, and it was the rest that benefited.—Dr. CAMPS thought angina a pure neurosis. Arsenic was good between the attacks; Hoffman's anodyne was good in the attack; strychnia was hurtful.—Dr. EADE thought angina might arise as a symptom of reflex irritation from parts not connected with the heart itself, and mentioned a case of chronic diarrhœa in which this seemed to occur.—Dr. STOKES had seen a case, that for many days resisted all treatment, cured by accidental vomiting.—Dr. ANSTIE, in reply, considered that angina depended on essential conditions of parts supplying the heart itself; and that, without these conditions, no reflex action could cause angina.

The Pathology and Significance of Certain Endocardial Murmurs. By T. HAYDEN, F.K.Q.C.P.—He commenced by classifying murmurs originating within the heart under two heads, namely—those occurring simultaneously with the sounds, and usually designated "systolic" and "diastolic" respectively; and those which occur during the intervals or periods of silence. The latter are likewise of two kinds; those, namely, which are heard during the short pause between the first and the second sound; this pause he distinguishes by the title of "systolic pause," because it occurs simultaneously with the acme of ventricular contraction;

and those which occur within the period of the long pause, or, as he preferred to designate it, the "diastolic pause" between the second and the first sound. Systolic murmurs are of two kinds, viz., those which accompany, and those which supersede the first sound. Diastolic murmurs are similarly classified. The relative significance of these two kinds of murmur in association with the two sounds respectively was next dwelt upon, and the condition of the valves to be met with in each case was pointed out. Murmurs occurring within the time of the short pause are theoretically of two kinds, viz., "postsystolic", which immediately follow, and are in direct continuity with the first sound, extending to a variable length into the short pause, but in most instances falling short of the second sound. Such murmurs, he showed, were of mitral origin, and due to simple valvular incompetence without organic valvular disease. The second kind of murmur falling within this period, viz., towards its close, and immediately preceding and continuous with the second sound, he designated "prædiastolic". Practically, the latter kind of murmur is exocardial; he had not met with a single example of such a murmur due to an endocardial cause. Murmurs developed within the period of the long or "diastolic" pause are of two kinds, namely, "postdiastolic," which are continuous with, and, as it were, appended to, the second sound, but falling short of the first. These murmurs are usually aortic, and expressive of imperfect closure of the aortic valves, the consequence of incipient, and as yet very partial structural change confined to the edges of the valvular segments. Finally, the murmurs which occupy the terminal portion of the long pause, he designated "præsystolic", in preference to the title "auricular systolic" given them by Dr. Gairdner. These murmurs are by no means uncommon, are usually confined to the area of the apex, and pathognomonic of mitral constriction. Numerous examples were given of the several species of murmur mentioned, with detailed history of cases; and the classification of murmurs, with their relationship to the several phenomena constituting the cycle of cardiac action, was illustrated by diagrams.

On Colour-Blindness. By Dr. GALEZOWSKI (Paris).—The following were the most important points of this communication. Colour-blindness has long been known in England, but only as a congenital affection. Dr. Galezowski considers that the cones of the retina are the special organs of the sensation of colour; that certain alterations of the retina and optic nerve hinder partially or wholly accuracy in the perception of colours; that, in apoplexy of the retina, chromatic disturbances only exist when the effused blood attacks the bed of the cones; that in the retinitis of albuminuria the same phenomenon is observed when the macula or the bed of the cones is attacked; that in atrophy of the papilla we observe from the commencement a loss of the faculty of distinguishing red and green colours; that in alcoholic amblyopia there is a kind of paresis or anæsthesia of the retina for colours—thus, after having looked at any colour, the patient remains with this same impression for some minutes; that in syphilitic affections of the retina and optic nerve the faculty of distinguishing green, red, and even sometimes blue colours, may be in abeyance for some time; and that these symptoms are dissipated under the influence of treatment.

B. PHYSIOLOGY.—President, Professor ROLLESTON, M.D., F.R.S.; Secretaries, W. S. CHURCH, M.A., M.B., and Professor BEALE, F.R.S.

The Administration of Nitrous Oxide as an Anæsthetic. By J. T. CLOVER, Esq.—After a brief history of the gas as an anæsthetic, Mr. Clover described his apparatus for administering it, consisting of a face-piece made of sheet-lead, so as to be easily moulded to the face, and edged with India-rubber tubing, so that the nose and mouth may be completely covered with an air-tight cap, obviating the necessity for pinching the nose. Two valves prevented the gas from being breathed a second time. When a patient breathed in a rapid and forcible manner, to prevent any air from being admitted by the falling of the cheek, a supplemental bag holding about 200 inches was connected by a stop-cock to the face-piece. The anæsthesia might be prolonged through a nose-cap alone. It was well to avoid giving the gas after a full meal, or with tight dresses. Whilst fitting the mouth-piece, the patient should breathe air only by means of a stop-cock contrived by Mr. Clover, and the gas should not be turned on until the patient breathed steadily. As long as he breathed calmly, the supplemental bag should be empty, but when he began to pant, the stop-cock should be opened. The gas received into this bag was so readily yielded during inspiration, that no air was sucked under the face-piece. When the breathing had become so calm as scarcely to raise the expiratory valve, the supplemental bag should be compressed at every fifth or sixth inspiration, and allowed to refill with fresh gas. Lividity after twenty or thirty seconds was no sign of anæsthesia. In about fifty seconds the expression altered, the eye became unsteady, the hands slightly convulsed; inhalation might be continued ten or fifteen seconds longer, unless respiration became very slow, or stopped, or the pulse very quick or unsteady. Sudden dilatation of the pupil should cause immediate removal of the gas. If general muscular rigidity did come on during inhalation, it often did when the operation began, and then the breathing might cease for ten or fifteen seconds without alarm if the pulse could be felt. The next gasp of pure air produced immediate restoration; but the inhalation should be at once discontinued if the pulse threatened to stop. Slight hysteria sometimes supervened for a few minutes, but it never lasted so long as after chloroform. Mr. Clover had given nitrous oxide in 387 cases, in all of which the patients had been able to walk away after the operation. Only three cases of sickness had occurred. Two patients who took it well were subject to epilepsy. Whether it would supersede chloroform in long operations was exceedingly improbable; but for short operations, in rapidity of recovery and absence of unpleasant consequences, it contrasted favourably with that agent. In experiments on various animals, he had always noticed that respiration stopped before the circulation; and he was convinced that, in case of danger, artificial respiration was the proper remedy.

On the Manufacture of Nitrous Oxide. By CHARLES JAMES FOX, M.R.C.S.—In this paper the author especially dwelt upon the value of Sprague's Regulator for working the apparatus with rapidity, yet steadiness of action, and insuring, with a minimum of labour, the production of a pure and efficient gas. In conclusion, he said that as he had always urged his dental brethren to secure the aid of their medical friends, so he would now urge medical practitioners to render themselves ready to afford such aid by a careful study of the mode of administration and action of the gas. The paper was illustrated by diagrams.

At the conclusion of the papers, Mr. Fox suggested that, as many of those present had not witnessed the effect of the gas, he should take it. Mr. Clover accordingly administered the gas to him; and, after those present had made their observations, a long and interesting discussion ensued.

On Wednesday, the 5th, and Thursday, the 6th, through the active exertions of Dr. John Murray, and the courtesy of Mr. Winkfield, the House-Surgeon, nitrogen was administered by Dr. Murray, and nitrous oxide by Mr. Clover, as anæsthetics, at the Radcliffe Infirmary, in the presence of many members of the Association. Mr. Winkfield operated on the surgical cases, Mr. Fox, at the House-Surgeon's request, undertaking the dental cases.

Air of Hospitals, in Reference chiefly to the Presence of Microscopic Germs. By E. LUND, Esq.—The author detailed some experiments which he had made on the air in one of the surgical wards of the Manchester Royal Infirmary. The ward, in which the experiments were conducted, contained four beds, and had a cubic capacity of about 5,400 feet. A fluid ounce of distilled water was placed in a pint stoppered glass bottle; and, by removing the stopper, raising the bottle sharply through the air, reclining and quickly shaking it, the water and the air were intimately mixed. This process being repeated fully 500 times, the water became opaque and deposited a sediment which was examined under the microscope. After forty-eight hours, there were distinct evidences of the presence of organic life, and on the fifth day there were found in it, numerous actively moving vorticellæ with abundance of monads in ceaseless motion. From this result, Mr. Lund inferred that, if the experiment were repeated under more varying circumstances, it might be shown that the presence in air of microscopic organic germs was a constant condition and easily detectable.

Complete Obliteration of the Cœliac and Mesenteric Arteries at their Origin. By JOHN CHIENE, M.D.—This case, in which there was complete obliteration of the cœliac axis and mesenteric arteries at their origins, and a consequent enlargement of the extraperitoneal system of arteries for the supply of the viscera, occurred in a female, aged 65, dissected in the Practical Anatomy Rooms at the University of Edinburgh in May of the present year. The abdominal aorta was extensively diseased, a large pear-shaped aneurism being connected with its lower half. Laminar old-standing clots filled the entire vessel anteriorly. The cœliac axis and mesenteric arteries were converted into fibrous cords to the first branch given off. Their branches were fully filled with injection; the cœliac axis system through anastomoses between the left phrenic (which arose, in this instance, from the cœliac axis) and lower intercostal on the same side; also through a plexus between the axis and the left renal, suprarenal, and lumbar arteries. The mesenteric arteries were filled from the internal iliac, through a plexus of large tortuous arteries in the pelvis which communicated with the superior hæmorrhoidal, the blood flowing thence into the colica sinistra, colica media, colica dextra, and ileocolic arteries. There was an anastomosis between the last dorsal artery on the right side and the ileo-colic. The injection reaching the viscera through these branches, it was to be presumed that they were supplied with blood through the same channels. The lumbar, epigastric, and circumflex ilii arteries were enlarged. The viscera were normal. This case presents several interesting practical aspects. 1. It proved that between the visceral and parietal branches of the abdominal aorta a free communication exists through the sub- or extra-peritoneal system of arteries, first systematically described by Professor Turner of Edinburgh in the *British and Foreign Medico-Chirurgical Review* for July 1863. 2. Enlargement of this system, not only in the abdomen proper, but in the pelvis, may take place to such an extent as to become the channel of blood-supply for the abdominal viscera, where their main arterial trunks are obliterated. 3. Blood can be drawn directly from the abdominal viscera by the application of depletory measures to the walls of the abdomen. 4. The case shows satisfactorily the course that the blood takes in obliteration of the aorta below the mesenteric arteries from disease, or after ligature.

The Physiology of Anæsthesia. By George Johnson, M.D.—The late Dr. Snow proved that anæsthetic vapours prevented the combination of oxygen with the tissues in the same way as they lessened combustion. Dr. George Harley proved that narcotics mixed with the blood lessen the amount of oxygen absorbed and of carbonic acid exhaled. Unconsciousness or anæsthesia is immediately due to defective oxidation of the nervous tissue. The causes of this defective oxidation are various. 1. A mixture of narcotics with the blood. 2. An arrest of the circulation, as in syncope and epilepsy. 3. The circulation of unoxygenised blood, as in apnœa, and when the oxygen of the blood is replaced by nitrogen or by the protoxide of nitrogen.

C. Surgery.—President, James Paget, F.R.S.; Secretaries, T. P. Teale, M.A., M.B., and W. Stokes, M.D.

Improved Method of Exposing Vesico-Vaginal Fistula. By T. Spencer Wells, Esq., F.R.C.S.—The instruments used by Beaumont, Jobert, and others, before Marion Sims introduced his speculum, and Sims's instrument as altered by Simon, were shewn and described. The apparatus of Ulrich of Vienna, in its complete form, and the portions of it used by the author, were shewn separately. The objections to fixing a speculum in any other way than upon the body of the patient were explained; and Dr. Emmet's self-retaining speculum was exhibited. As the fulcrum of this instrument is fixed upon one hip, the side or semi-prone position is necessary during the operation; and the instrument, even when enlarged, does not answer well in large or fat women. An instrument was then shewn which has been altered from Emmet's for the author by Messrs. Weiss. As the fulcrum is fixed upon the back, any portion of the patient may be selected for operation, and the speculum may be so fixed in the vagina that it is not displaced by any movement of the patient. The author had operated with this instrument, and found that it enabled him to dispense almost entirely with any aid from an assistant.

In the discussion which followed, Dr. Protheroe Smith remarked that he had found Dr. Marion Sims's speculum all-sufficient for operations on the vagina and bladder; but he thought his own double cylindrical speculum, of which he published an account in 1842, was necessary to the correct diagnosis of the diseases of the cervix uteri, as it offered the advantage of visual inspection and tactile examination simultaneously, as in the instance of diseases of the surface of the body, for which the surgeon could not be satisfied with either sight or touch alone for diagnosis. It facilitates the exposure of the os and cervix uteri, however displaced; and makes the operations on and applications to the labia uteri more easy and certain than any other form of speculum.—Dr. Heywood Smith thought that, in addition to the observations that had been made by his father, the cylindrical speculum was peculiarly suitable where the application of caustics was deemed necessary to the os uteri, since it allowed the use of a pond of neutralising fluid under the cervix, by which any chance of injury to the vagina was wholly avoided. He was, however, fully sensible of the advantages of Dr. Marion Sims's speculum in many other operations on the cervix uteri and vagina.

Amputation of the Right Arm at the Shoulder-joint and Excision of the Scapula for Severe Injury of the Limb. By Vincent Jackson, Esq.—The case was that of a man admitted into the Wolverhampton General Hospital, December 1864, having previously been knocked down on the railway by the buffer of an engine, the wheel of which passed over his arm. The injuries were so severe that the removal of the limb at the shoulder-joint, followed by excision of the scapula, offered the only chance of saving life. The author drew particular attention to the fact that the scapula had been excised by sawing through the acromion process, thus saving the point of the shoulder. This was the first time that this had been done, all previous excisions of the entire bone having involved a portion of the clavicle. There were only two other cases on record in which, for injury of the limb, a similar operation had been performed; one by Mr. Cumming in 1808, for a gun-shot injury; and a second, also for gun-shot injury, by Gaetani Bey, in 1841. The paper concluded by a reference to all the published cases, in which the operation of amputation of the shoulder-joint and excision of the scapula had been performed, whether for injury or for disease, and appended to it was a table with full particulars of these cases, and also of all cases in which the scapula had been excised alone.

Treatment of Acute Orchitis. By Furneaux Jordan, Esq.—The author referred to the variety of orchitis sometimes called epididymitis, which was usually acute or subacute, and which followed or was consecutive to urethral lesion, especially gonorrhœa and gleet. The treatment consisted in the application of a strong solution of nitrate of silver to the scrotum of the affected side, followed by gentle pressure. The first occasion on which Mr. Jordan adopted the treatment was in the case of an in-patient of the Queen's Hospital, Birmingham, suffering from gonorrheal rheumatism of the knee. An acute synovitis of one knee was cured, as most cases are, in twenty-four hours, by nitrate of silver applied almost to vesication. Then acute orchitis set in, a strong solution of nitrate of silver was applied; and, in twelve hours, swelling, pain, and tenderness had disappeared. For several years he had uniformly adopted this treatment, and with unvarying success. It did not possess the heroism of a knife-plunge into the testicle or into the tunica vaginalis, but it was as quick and effective in its results as the bolder methods.

Further Observations upon an Improved Method of Extracting, in Cases of Cataract. By Charles Taylor, M.D.Edin.—The author in his method of extracting employed two small knives about a line in breadth and bent at an angle like the ordinary iridectomy knives, one with a sharp end, the other with a blunt or bulbous extremity. The patient is anæsthetised; and the lids separated with the stop-speculum: the sharp knife is then entered at the summit of the cornea, and an incision from two to three lines in extent completed. The lens may be extracted either with an iridectomy with a mere slit in the constrictor fibres of the iris; or, if circumstances be very favourable, the iris may be left intact. The previously dilated pupil will to a considerable extent maintain this condition with the small incision until the capsule is opened. Owing to the small size of the opening, the globe may be manipulated to any extent and the capsule rendered tense without danger. When the cataract is loosened, the wound should be enlarged with the blunt pointed secondary knife to each side, the eye being fixed first with one hand and then with the other; a shallow flap is thus formed, through which the lens may be extruded without introducing any instrument into the eye. Owing to the precision with which the wound may be localised, a smaller flap suffices for removal of the lens than is required in the old flap method, even if the iris be left intact; but if a portion be removed, a shallow elongated flap is formed, situated well back in dense tissue, with sloping sides and transverse centre, which last occupies the summit of the true cornea. Such a flap is sufficiently elastic to close without any artificial apposition or external support, strong enough to resist protrusion by advancing vitreous body, and too resilient to permit of accidental reflection. When the lens is fixed by adhesions or the hyaloid is ruptured, the author uses his wire or skeleton spoon, a mere loop of flattened wire of extreme tenuity, which assists the exit of the lens *without adding to its bulk*; if the lens be tilted over, this may be used without dipping it into the vitreous cavity, even when the iris is left untouched. Closure of the eye with a wet pad, and two days' confinement to the couch in a partially darkened room, are all the after treatment required; and, as a rule, the patients return home in a week with restored vision. The advantages claimed for this method are: that the right hand may be used for either eye, so that ambidexterity is not necessary on the part of the operator, nor is there risk of that increased mortality, which from the greater difficulties of extraction, has hitherto attended operations upon the left eye; that, up to the last moment, indeed until success is almost certain, the operator is not committed to any special form of operation, but may extract either with or without iridectomy, or may defer the operation until after removal of a portion of the iris, utilising the experience of the individual thus gained, to the evident advantage of both patient and operator when extracting some weeks later. Numerous other advantages were claimed; from the facility of execution, the ease with which accidents are met, and the small size of the wound, the greater safety and certainty of success, and the slight after treatment required. The author reported ninety cases operated on in succession, without selection, and including many persons over 80 years of age, and others suffering from various forms of senile marasmus, decrepitude, and disease, in which three eyes only were lost from suppuration of the flap.

The Influence of Shock in the Production of Cutaneous Disease. By Erasmus Wilson, Esq., F.R.S.—The paper was a further illustration of a subject first brought under the notice of the British Medical Association in 1863; the purpose of the author being to shew that irritation of the organic nervous plexuses, whether occasioned by direct or reflex lesion or by mental shock, is capable of disturbing the process of sanguification and of perverting the pigmentary function of the skin. As an illustration of his views, he narrated the case of a young lady of about twenty years of age, who, in consequence of a fright received four years before, had remained liable to hysteria up to the present time, and had within the last two years become the subject of melanopathia and leukopathia of the skin of the neck.

On the Impacted Fracture of the Neck of the Thigh-bone, more particularly in Reference to its Diagnosis; with Cases. By THOMAS BRYANT, Esq., F.R.C.S.—The author commenced his communication by dwelling on the importance of the diagnosis of cases of impacted fracture, and that too, in the very earliest period of the case, and expressed an opinion that the diagnosis of such form of injury is not one of difficulty. He referred in complimentary terms to the work of Professor R. W. Smith of Dublin, and stated his own investigations tended to support the opinions of that eminent surgeon. He believed with Mr. Smith, that all extracapsular fractures of the neck of the thigh-bone are in the first instance impacted fractures; and that many intracapsular fractures, and all the mixed forms, are of a like kind. The impacted bones are loosened in some cases by a second fall, in others by excess of violence received in the original accident, and in too many instances by the surgeon in his anxiety to make out the presence of a fracture by the detection of crepitus. He said that this looking for crepitus, in all cases of fracture, is a practice of considerable danger; in fractures of the neck of the thigh-bone it is not only unnecessary but it is unjustifiable. It is unnecessary, because the diagnosis of the case can be made out without the help of such a symptom; it is unjustifiable, because in every case of impacted fracture the attempt to find it is attended with irreparable mischief. Twelve cases of impacted fracture were then read in detail, and some preparations exhibited. The following summary of the symptoms, by which the nature of the injury was determined, was then given. In all, the injury to the hip-joint was communicated through the trochanter. In all, as an immediate result of such an accident, there was more or less complete inability to move the limb; but in two of the cases the patients, when in a recumbent position, could slightly flex the thigh upon the pelvis, and in one instance rotate the limb. In all, the injured limb was found to be shorter than its fellow by almost an inch, and in no case did careful extension make any perceptible diminution in the amount of shortening present. In all, the foot was either slightly everted or straight, but in no case was it everted as it is usually in the non-impacted fracture. In one case however, this eversion was less marked than in the sound limb. In all, the head of the femur could be made to rotate in the acetabulum, and the trochanter moved with it. In few of the cases was crepitus felt, and when felt it was indistinct. In all the cases, the major trochanter was clearly placed nearer the median line of the body than on the sound side, and nearer also the anterior superior spine of the crest of the ilium. The author concluded by expressing his belief that the symptoms enumerated clearly indicated an impacted fracture; and stated that, as a rule of practice, it would be far safer to regard all cases of injury to the hip-joint, received through the trochanter, as examples of the impacted fracture, and to conclude only that such was not the case when the symptoms clearly proved a different condition to exist, than to leave the suspicion of such a form of injury out of consideration altogether, or only to entertain the idea of its presence when the symptoms which the case presents are clearly inconsistent with the existence of any other form of recognised injury.

A New Instrument for Investigating the Field of Vision. By M. A. ADAMS, Esq.—The instrument consisted of a hollow hemisphere of glass divided into meridians and parallels, as an ordinary globe. The eyepiece was at the centre of the concave side, and the surgeon traced the field of vision upon the exterior surface. The examination could be made with great ease and perfect accuracy. The author considered that the instrument would supply a want long felt by ophthalmic surgeons.

D. MIDWIFERY.—President, Sir CHARLES LOCOCK, Bart., F.R.S.; Secretaries, J. G. SWAYNE, M.D., and HEYWOOD SMITH, M.B.Oxon.

On Prolonged Hypodermic Injection. By J. HARRISSON, M.R.C.S.—The author narrated a case where severe sickness had been present during two months, neither food nor medicine being retained. [The illness was imagined by the patient to have commenced with conception. Her friends, however, attributed it to a cold caught during menstruation.] The os uteri was swollen. Sedative enemata and vaginal injections were tried without avail. Hypodermic injection was then commenced. One grain of acetate of morphia was dissolved in six minims of water, and one minim was injected three times a day; and at once the vomiting abated. The strength was increased until fourteen minims were used twice a day; and the injections were continued from April 13th to July 1st. By means of ergot and drastics, the patient aborted; nevertheless, the gastric irritation continued. On July 9th, the injection was reduced to ten minims once a day. When this was intermitted, the vomiting recurred. On July 20th, the injections were discontinued, as the catamenia returned. The patient was reluctant to leave off the injections. The skin of the arm was pierced two hundred and sixty times, with very slight unpleasant effect. Suppuration did not occur. A slight disorder of the liver yielded readily to treatment.

Dr. ROUTH wished to know whether, amongst all the remedies that had been used, belladonna had been tried; for he had found that large doses of the tincture (twenty to thirty minims) every three or four hours had been of great service in arresting vomiting. In one case, a young woman, after seduction, vomited after every kind of food. Every sort of remedy was tried without success, till Dr. Routh applied Dr. Chapman's ice-bag to the spine for an hour in the morning, and again at night, when the sickness passed away entirely, and she went to the full term well.—Dr. GREENHALGH mentioned the case of a lady one or two months advanced in pregnancy, who came under the care of Dr. West for sickness. Dr. West advised abortion to be produced, but which was not agreed to. She had been kept alive by nutrient enemata. In this case, the sickness was stopped by belladonna. In cancerous vomiting, he had found belladonna, or atropia, or morphia, of great use, administered *per vaginam*. In the use of vaginal remedies, it is very important to see previously what is the condition of the uterus, as, if there be no abrasion of the mucous membrane, there is no risk; but, if the surface be abraded, the risk is considerable. A lady was in this manner nearly poisoned by one-sixteenth of a grain of atropia.—Mr. HARRISSON said that, in his case, belladonna had been used on spongio-piline externally, and also as a vaginal application.—Dr. HALL said that he knew a case nearly terminate fatally by a prescriber writing so badly that one-sixteenth was mistaken for seven-sixteenths.—Sir C. LOCOCK questioned the justifiability of bringing on premature labour for sickness in advanced pregnancy. For his own part, he was against the practice; for he remembered a case in which profuse hæmorrhage occurred after the attempt, and the patient died. No patient had, so far as he knew, died after sickness in pregnancy. Ten grains of calomel would often stop the most violent sickness; and chloroform, given almost to insensibility, was very useful.—Dr. PRIESTLEY mentioned a case in which, if abortion had been used, the patient might have been saved. A lady had suffered from vomiting for five or six months, was constantly tossing about, and was much exhausted by it. Every remedy had been tried without success. There was a consultation with regard to abortion. The night previously, a grain of opium had been given. The opinion was, that, if the operation were performed, the patient would sink. Two more grains of opium were administered; and the patient became comatose, and died from narcotism. The question arose, whether, if abortion had been brought on, the patient might not have been saved. Dr. West's opinion was that abortion, in some cases, should be procured.—Dr. MARION SIMS gave the following cases. A lady conceived in November, and vomited till February. Dr. Campbell and others in Paris had been consulted. She aborted, and died the same night. Another had been operated on for vaginismus. She conceived in May, and vomited till July. Her mother had vomited throughout all her pregnancies, and opposed any operative interference. On August 17th, she rose to satisfy a call of nature; and, as she got out of bed, she fainted, and died in two hours. Two lives might have been saved, if the operation had been performed sooner. In another case, in which Trousseau gave as his opinion that abortion should be procured, a dead fœtus came away, and the woman's life was saved.—Dr. WILTSHIRE advocated, in these cases, the tincture of nux vomica.—Dr. BEATTY never saw a death occur from sickness of pregnancy. He would not hesitate to produce abortion, if he saw a patient dying. He did not think any one was justified in using such a dangerous remedy as atropia when belladonna could be used.

Transfusion of Blood in Hæmorrhage; with a Description of a New Mode of Management. By J. BRAXTON HICKS, M.D., F.R.S.—(The abstract of this paper was given at p. 151 of the JOURNAL for Aug. 8th.) In the discussion, Dr. PROTHEROE SMITH said that he thought that the great value of Dr. Hicks's mode of operation consisted in the prevention of coagulation, and considered that the operation was difficult, and failed, where it did, chiefly from the introduction of coagulated fibrine into the vein of the patient. During the cattle-plague, he had, in the hope of finding a remedy for that fatal malady, tried several experiments on the inferior animals; but, though at first unsuccessful, by practice he was enabled with impunity to transfuse whipped or defibrinated blood both into sheep and oxen. He desired now to suggest the propriety of using such defibrinated blood, either of sheep, oxen, or other inferior animals for the human subject, since it offered a more likely means of augmenting the diminished bulk of blood in the anæmic, than by any artificial fluid, and could be obtained with readiness at all times, which was not the case with human blood. It might, he thought, be used in extreme cases, especially when death was otherwise inevitable. He begged to recommend this to the serious consideration of the profession.—Dr. GRAILY HEWITT said that his experience of transfusion was not very favourable, and insisted on the necessity of transferring the blood very quickly. He regarded jactitation as a most unfavourable symptom, and thought that Dr. Hicks's would supersede other methods of performing the operation.—Dr. ROUTH had collected histories of forty-eight cases in which transfusion had been performed both in man and the lower animals, and the result was found to be unfavourable in every instance where more than four ounces had been infused. He recommended that smaller quantities should be injected than were usually employed, and would suggest the use of subcarbonate instead of phosphate of soda, which he thought likely to produce poisoning.—Dr. G. H. KIDD mentioned a case in Dublin, in which the blood was defibrinated by whipping. A double-acting syringe was used, with an elastic tube and small glass tube attached, so that the operator could see whether any bubbles of air were mixed with the blood, and at once stop the injection, if necessary.—Dr. P. SMITH said that he could see no reason why the whipped blood of the lower animals should not be used.—Dr. HICKS exhibited the instrument he used for transfusion; and stated, in reply to Dr. Routh, that Dr. Pavy, whose judgment he relied upon very much in these matters, objected to the use of subcarbonate of soda, on account of its being likely to produce disintegration of the blood.

The Treatment of Flexions of the Uterus by Means of an Elastic Pessary. By PROTHEROE SMITH, M.D.—[The abstract of this paper was published at p. 151 of the JOURNAL for August 8th.]

The Treatment of Versions and Flexions of the Uterus. By GRAILY HEWITT, M.D.—[For the abstract, see JOURNAL of Aug. 8th.]

Dr. SWAYNE said that one important condition of the os uteri was often left out of sight; viz., that, when the flexion is acute, the circulation is arrested by the bend, and engorgement and ulceration are produced. The proper treatment is, first to cure the ulceration and relieve the uterus of its engorgement, by leeches, scarification, etc., replacing the organ, and afterwards to retain it in its normal position by the use of instruments. The stem produced evil in many cases; in one it brought on peritonitis and death; in another, the stem was pressed into the fundus uteri.—Dr. GREENHALGH agreed to Dr. Swayne's remark, that the engorgement, etc., should be cured before having recourse to any instrumental treatment. He found Hodge's pessary to answer its purpose well, but its upper border often produced pain. He then exhibited a pessary like Hodge's, made with a small portion of its lower border of India-rubber, so that its two ends might be made to approximate. He also showed an ingenious instrument for anteflexion; it consisted of a short intrauterine stem, elastic, metallic, cut spirally, and tending always to remain, when at rest, in a slightly curved position. This was to be so introduced into the cervical canal on a stylet, so that, when released, it should keep up a gentle antagonising pressure against the abnormal uterine curve.—Dr. PRIESTLEY thought that it was evident that flexions of the uterus were of very frequent occurrence, if one might judge from the great number of ingenious instruments that had been invented for their treatment. He did not think that anteversion gave rise to very urgent symptoms. He was of opinion that Dr. Graily Hewitt's pessary would do good. He felt it necessary to protest against the operation of lateral division of the cervix uteri for retroflexion, and asked for information on that subject.—Dr. MARION SIMS said that when, thirty years ago, Hodge gave his pessary to the world, he stood alone. When the vagina is large and hypertrophied, there is a difficulty in so bending the instrument that it should do good, and often the fundus uteri may be found bent over the end of the pessary. Instead of the pessary being bent with a gradual curve, it should be bent up sharply at right angles at one end, so that the proportion of the two bent planes should be as three to one. He said he had never used the lateral operation for retroflexion.—Dr. GREENHALGH also denied that he had ever treated retroflexion by that operation.—Dr. PROTHEROE SMITH also spoke to the same effect, and against the use of stem-pessaries.

The Treatment of Intrauterine Polypi. By GEORGE H. KIDD, M.D., F.R.C.S.I.—[An abstract of this paper was published at page 151 of the JOURNAL for Aug. 8th.]

Dr. BEATTY (Dublin) testified to the facts of the case, the skilful manner in which the operation was performed, and the good results from the use of sea-tangle tents. In one instance, as many as seven of these tents were introduced. Little pain or irritation resulted; and, after twenty-four hours, he passed his finger freely up to the fundus uteri.—Dr. GREENHALGH suggested the use of perforated laminaria tents, because they dilated more readily than the others; and mentioned a case in which he had three times removed several tumours from within the uterus, and which would no doubt have been much benefited by operations performed in the manner described by Dr. Kidd.—Dr. PROTHEROE SMITH mentioned a case in which he had twice removed polypi from within the uterus. There was, however, no recurrence of the tumours after the third removal.—Dr. ROUTH, after inquiry as to the strength of the nitric acid employed, called attention to the large size of the uterus, which continued after the last polypi had been removed, and also to the copious fœtid discharge; circumstances which he considered indicative of fibroid disease of the uterus. Dr. Routh was inclined to think that the cure was due to the nitric acid.—Dr. MARION SIMS did not think that there was any reason to believe, as some had done, that there would be much difficulty in removing polypi from the uterine cavity by the *écraseur*, provided Dr. Kidd's method was adopted. He was glad to hear that the laminaria tents had been found to answer so well, as his own experience of them was not so favourable.—Dr. SWAYNE inquired what method had been adopted by Dr. Kidd to retain the tents *in situ*. He had always found that they are very likely to be expelled by the contractile power of the uterus, and that some kind of plug was necessary to keep them in place.—Dr. KIDD, in reply, stated that, in the case he had read, there was no evidence, either on external or internal examination, of fibroid disease, as suggested by Dr. Routh. He then described his mode of passing the wire round the tumours, and said that he did not draw down the tumours, but the uterus itself, by a strong vulsellum. In answer to Dr. Swayne, he said that he was not in the habit of using a plug to retain the tents; if they were packed tight enough into the canal of the cervix uteri, they would keep in place of themselves.

Missed Labour. By R. GREENHALGH, M.D.—There had been but few who had noticed missed labour. Dr. Oldham had mentioned a case in 1864; Dr. McClintock and Professor Simpson in 1865. Rupture of the uterus and hæmorrhage, retarded labour, and extrauterine pregnancy, had all been mistaken for it; and cases of protracted gestation had sometimes been called missed labour. It was necessary to define what missed labour was; viz., uterine pregnancy in which the fœtus dies and is retained *in utero* beyond term. He had the details of eight cases—one occurring in his own practice—of which he read two. The first case was that of a woman, aged 43, married thirteen years. There were fœtid discharges and bearing-down pain. Pulse 92. The abdomen was distended by a well defined swelling. Her last period was fourteen months previously. An opinion had been given of cancer. The upper part of the vagina was occupied by a round hard body, thought to be a boxwood pessary. Through the speculum, it looked brown. It broke down under pressure, and at last was made out to be a fœtal head. She thought she was pregnant about three or four months, when her husband struck her on the head and frightened her. From that time, she never became larger. At term, labour-pains came on; a midwife ruptured the membranes, but labour did not proceed. A medical man said she was not pregnant; and at last she was sent to St. Luke's delirious from fever. After this, she came under the author's care, and, on her being placed under chloroform, a sensation of grating was perceived in the tumour; an opening was made, and he was able to extract a number of bones. The patient did well, bones continuing to pass for some little time. The uterus was moveable, the os patent; the uterine-sound passed four or five inches. The next case was under the care of Dr. McClintock. She had had twelve children in fourteen pregnancies. At term, she had pains for five weeks, actual labour for two days; from which time, for sixty-two weeks, she passed several bones. She did not know whether the placenta came away. She died with symptoms of acute pyæmia, after many operations to remove the bones. In his general remarks, Dr. Greenhalgh noticed that Sir James Simpson says that missed labour is the rarest phenomenon that occurs to the human female; probably this accident will be found more frequent when we are prepared for it. In it the uterine expulsive powers are hindered by some cause or other. The causes are at present obscure; abortion, and violence on the part of the husband, have been followed by its occurrence. In one case, there had been twenty-six abortions in twenty-seven labours; in another, the patient was 45 years old. To the uterus, we must look for the explanation. If the membranes remain intact, the fœtus may remain in the uterus; but if the membranes are ruptured, the fœtus becomes putrid.

On the Diagnosis of Early Pregnancy. By ROBERT BARNES, M.D.—The author, observing that during the first three months it was notoriously difficult to affirm the presence or absence of gestation with confidence, and that the evidence was essentially cumulative, submitted that any new sign became valuable. No one sign was trustworthy; but probability rose in proportion to the cumulation of signs. He drew special attention to a peculiar stretching of the connective tissue which binds the cervix uteri to the base of the bladder, caused by the anteversion of the gravid womb. This stretching backwards produced a characteristic smooth elastic plane of the roof and anterior wall of the vagina. This connecting areolar tissue is remarkably extensile, so that the space between the anterior wall of the cervix and the bladder is lengthened. Other facts connected with this tissue were mentioned. The present conclusion was that, when the peculiar tense smooth plane of the vaginal roof was found in connection with the violet colour of the vagina described by Jacquemier, the presumption in favour of pregnancy was very strong. The specific character of the violet colour depending upon pregnancy was also described. The memoir was illustrated by paintings.

Dr. McClintock said that he attached most value to the discoloration of the vagina as a sign of early pregnancy; and believed that it was scarcely ever simulated by disease.—Dr. H. Bennet remarked that he considered the certain diagnosis of pregnancy to be all but impossible during the first ten weeks of pregnancy, as all the signs enumerated by Dr. Barnes may be simulated by inflammatory disease; at the same time observing that he did not consider that pregnancy was any bar to the treatment of such affections.

The Value of the Microscope in the Treatment of the Sterile Condition. By J. Marion Sims, M.D.—The microscope had not been until lately fully appreciated by investigators. In the investigation into the causes of sterility in any case, three questions arise, and must be answered. 1, whether the semen was fructifying—*i.e.*, contained spermatozoa; 2, whether it entered the cervical canal; 3, whether the uterine discharges were favourable or not to the life of the spermatozoa—*i.e.*, to impregnation. Conception was impossible if no spermatozoon entered the cervical canal alive. The question could be settled by the microscope; without it the treatment of the sterile condition became blind empiricism. He then described the method of investigating the characters of the semen, and the secretions of the vaginal and cervical mucus. Pus was inimical to the life of the spermatozoon. The mucus must be clear, without milky specs; mucus might be clear and yet poison the spermatozoon. When living spermatozoa were found high up in the canal of the cervix thirty-six hours after coition, the case was cured. It was of no use to operate on a woman without first finding out whether the semen of the husband was healthy. Here followed the outlines of eight cases.

A Case of Ovariotomy during Acute Peritonitis. By W. Tyndall Watson, M.D., and A. Wiltshire, M.D.—[For the abstract of this paper, see the Journal of August 8th, p. 151.]

Mr. Spencer Wells remarked upon the great success which often attends the removal of the source of peritonitis, even when the patient seemed to be *in extremis.* He said that he had seen two or three cases of death from hæmorrhage into an ovarian cyst. Five pounds of blood were effused in one instance. He believed the hæmorrhage to be caused either by the twisting of the pedicle interfering with the circulation, or erosion of the vessels of the tumour. He had met with one very favourable case of operation during peritonitis. He remarked that it was very much to the credit of two young physicians that they had so boldly carried out such a great principle as the removal from the body of the cause of its ill health in the face of almost unprecedented discouragement.—Dr. Swayne observed that the favourable results which had attended two cases lately operated on, at the Bristol General Hospital, by his colleagues, Dr. Marshall and Mr. M. Clarke, induced him to think that the previous existence of peritonitis, provided it were attended with moderate effusion, and with adhesions neither very firm nor extensive, was rather a favourable circumstance than otherwise in the performance of this operation. The peritoneum seemed in consequence to become more tolerant of the necessary handling, and of the presence of any effusions which may take place during the operation.—Dr. Protheroe Smith thought that the immunity from inflammation and other ills in Dr. Wiltshire's case resulted, in great measure, from loss of blood. He made this remark, as he had recently witnessed a case in which secondary hæmorrhage followed the operation, after vomiting; and he could not but think that a careful abstraction of blood after an operation which removed so large a mass suddenly from the field of circulation, might often prevent that state of plethora of the vessels to which were often due the grumous exudations and hæmorrhage which so often disappointed the hopes of the operator.

E. Public Medicine.—President, John Simon, F.R.S.; Secretaries, J. E. Morgan, M.A., M.D., and T. J. Dyke, F.R.C.S.

On the Distribution of Sickness and Mortality through the year; and on the Necessity which exists for a National Registration of Sickness. By Edward Ballard, M.D.—The basis of this paper was a record kept by Dr. Ballard during nine years, 1857-65, of 217,172 new cases of sickness, and 27,854 deaths, each of which he referred to the week, month, and quarter, in which it occurred. The order of sickliness in quarters, he found to be—spring (least sickly), next summer, winter, and autumn (most sickly). The order of fatality was spring (least fatal), and summer about equal to it; next, autumn and winter (most fatal). Taking the months of the year, he found the order of sickliness to be—May (least sickly), next April, June, September, March, February, August, July, October, January, November, and December (most sickly). The order of fatality, he finds to be—September (least fatal), June, May, August, October, July, April, February, March, November, December, and January (most fatal). Dr. Ballard dwelt upon the fact that, the more closely this matter is examined, the less is the agreement observed between the sickness and mortality of any period; and on this ground he urged the necessity for a national registration of sickness as well as of mortality.

On the Influence of some of the more important Elements of Weather upon the Absolute Amount of Sickness. By Edward Ballard, M.D.—The author, taking six of the years, the records of which were used for the previous paper, compared, for quarters and months, the amount of new cases of sickness registered in opposite conditions of weather. The results he obtained were chiefly these. 1. Sickness prevailed more in those corresponding months and quarters in which the temperature was high than in those in which it was low. 2. In the colder months of the year, a daily range of temperature has little influence; but, in the warmer months, it is more important even than the temperature itself, a large diurnal range being more injurious to public health than a low range. 3. In the corresponding months and quarters in which the air was comparatively dry, there was more sickness than when the air was moist. 4. The sickness was least when there was most rainfall and a larger number of rainy days; the quantity of rain falling being more important than the number of days on which it fell. 5. On the whole, there was more sickness when the wind was from the south-west than when it blew from the north-east; and high winds were associated with more sickness than winds of less force.

The Appointment of District Physician to whom all Public Medical Functions should be Entrusted. By E. D. Mapother, M.D.—The author urged the appointment of highly trained physicians for cities and rural districts, who should undertake all public duties, such as superintendence of death registry, of which detailed and authentic returns should be published; and the giving of evidence in every case before Coroners and in Courts of Justice where medical questions were at issue, acting as officers of health and in similar capacities. These officers should be paid out of the Consolidated Fund or the County Rate, and at the rate of at least £100 yearly per 35,000 of the inmates of each district, besides travelling charges. Except in the case of medical coroners now in office, the appointment should be given by competitive examination.

Suggestions for rendering Medico-Mental Science available to the better Administration of Justice and the more effectual Prevention of Lunacy and Crime. By Thomas Laycock, M.D.—The author, while admitting that medical education is defective as to the practical relations of medico-mental science, proceeded to show that the acknowledged defects in the administration of justice in all matters involving legal capacity and responsibility could only be thoroughly remedied by bringing the principles and procedures of the law into harmony with modern mental science. Some of these now current date from a very remote antiquity; others have no higher origin than precedents founded on popular prejudices. Even the most recent exposition of the law as to criminal responsibility, by the twelve judges in 1843, had as its chief foundation a confused charge of Chief Justice Hale, the last judicial persecutor of witches. The same defect runs through the administration of justice in respect to the restraint and punishment of criminals, many of whom are incorrigible imbeciles; so that the whole of our primitive system is little better than a groping in the dark, because the scientific means available to the reformation of criminals and the prevention of lunacy and crime are lost sight of. Looking at the magnitude of the questions involved, Dr. Laycock argued that nothing short of a thorough public inquiry by competent persons into the entire administration of justice, in its relations to modern or medico-mental science, would render the latter duly available to the needs of modern society, and remove obvious defects.

Small-Pox and Vaccination in India. By Robert Pringle, M.D.—Dr. Pringle, Surgeon in Her Majesty's Bengal Army and Superintendent of Vaccination in the North Western Provinces, discussed the subject under two heads: viz., 1. Small-pox: its prevalence, and the rate of mortality resulting from it in India, and more particularly in Bengal and the North West Provinces of India; and 2. The various measures adopted both remedial and prophylactic to check the disease, and prevent its spreading. He very briefly alluded to the prevalence of small pox in India, due, according to the author, to what he termed the almost continuous contagion of small-pox recurring year after year; and to the very high rate of mortality from the disease, caused, as he expressed it, from the absence of any attempt at treatment, and the age of those attacked, which is generally that of infancy, the disease appearing chiefly among the children born since its last visit. Dr. Pringle proceeded to enter in detail into the chief subject of his communication, viz., the preventive measures against small-pox. After describing the system of inoculation, as practised in the Himalayan range of his superintendence, the result of his personal observation on the spot, and taking for example the case of a village where it had been placed on its trial, so to speak, against the vaccination conducted in the adjoining; Dr. Pringle concluded with an account of the scheme of vaccination now adopted with slight variations throughout India generally, and first planned and perfected by Surgeon F. Pearson, Superintendent General of Vaccination in the North Western Provinces. The principal features in Mr. Pearson's scheme were summed up by Dr. Pringle under the four following heads.—1. Supervision by European Medical officers specially qualified for the work. 2. A carefully trained staff of native vaccinators. 3. Fixing the field of each vaccinator's operations within such limits as would admit of the benefits of systematic vaccination being made apparent in the district in which he works, and whence the practice may be expected to spread, on its own merits (the best foundation in a voluntary scheme like that under notice) to the surrounding districts. 4. A system of Returns so compiled, as in their execution not to interfere with a given amount of work to be done, but yet capable in themselves of detecting any attempt at falsification. Dr. Pringle also gave a description of the method adopted in the Vaccine Department of the North West Provinces of India, for keeping up a supply of vaccine lymph in the Himalayas throughout the year, so as to admit of vaccination being carried on during the season suited for it, in a tract of country where, owing to the high temperature, this can be successfully, and hence beneficially, performed for only five out of the twelve months. The importance of the subject generally was summed up by Dr. Pringle in the following words:—"After a continuous residence of nearly thirteen years in India, and having seen cholera in its most fatal haunts during three years at Juggernauth, and the effects of famine, I have arrived at the conclusion that, though the former may count its victims by hundreds, and the latter in larger numbers, though at longer periods, yet both pale before the spectre of small-pox stalking yearly through densely crowded villages, and seizing its victims from the children born since its last visit, with a mortality which it is appalling to contemplate; and knowing this as I do, I confess to feeling an earnest desire to do all that in me lies to check a scourge allowed to be preventable. If this communication enlists one tithe of the sympathy and help which the subject demands, I feel I shall not have pleaded in vain for the infant population of Hindostan."

Medical Fees. By H. STEAR, Esq.—Mr. STEAR brought forward a paper embodying a resolution that a committee be appointed to draw up a recommendatory tariff of medical fees, basing the title to remuneration solely upon the value of a medical man's time and service, and not for medicine supplied.

Dr. BRIGHT, of Sydenham, seconded the resolution; it was supported by Dr. Heslop, Dr. Farr, Mr. Manley, and Mr. Balding.—Dr. FALCONER suggested that it would be more consonant with the custom of the Association to refer the matters to the Council; and he proposed, and Dr. OGLE of Derby seconded—"That the Committee of Council be requested to appoint a committee to inquire into the subject of medical remuneration, and the desirability of drawing up a Tariff of Medical Fees."—This was unanimously agreed to.

On the Comparative Results of the Inspection of Recruits for the Public Service by Military and Civil Surgeons, and on the Regulations laid down for the Guidance of Medical Men. By J. I. IKIN, F.R.C.S.—Mr. Ikin brought this subject before Section E, with a view to rouse civil surgeons to be more careful in the performance of the duty of medical inspection of recruits, in order not only to obviate inconvenience and expense to the public service, but also to remove the stigma that the military authorities were disposed to cast upon them for their carelessness and want of skill in this duty. He referred to the position of militia surgeons, and claimed for them some more certain and adequate recognition by the state than they at present received. Their services were used just as it suited the convenience of the public service, and were discontinued abruptly without any claim to pension or permanent pay. Surgeons whose regiments had been embodied had been called upon to make great sacrifices by removal from head-quarters. He considered the position and claims of militia surgeons were legitimate questions for discussion before a Section devoted to Public Medicine. His own experience had been great and varied; but gained at a great sacrifice, in a pecuniary point of view, as he accompanied his regiment during embodiment. Since 1853, he had inspected close upon 13,000 recruits for the line and militia, including every branch of the service. The prevalent causes of the rejection of recruits (one-third to one-fourth of the number inspected were rejected) were pointed out by statistical tables, as well as their state of education, from his own register, and from the able Report of Dr. Balfour, of the Army Medical Department. The exact numbers finally approved at the head-quarters of the recruiting districts during the last five years were tabulated for each year; and it was shewn from them that more than double the number of recruits inspected by civil surgeons were rejected at head-quarters, compared to those inspected by military surgeons. This fact gave just grounds for the authorities questioning the qualifications of many civil surgeons for the careful and skilful performance of the duty. To see a surgeon, inexperienced in this duty, inspect a recruit, before a sharp and intelligent recruiting-sergeant, was, in itself, a humiliating, if not ridiculous, exhibition. The recent War Office Regulations for the formation of the Army and Militia Reserve were alluded to; their excessive preciseness and strictness were the only faults that could be found with them. The practical effect of acting up to these regulations would be to render the formation of the army a matter of great difficulty, if not an impossibility, as only a very few men out of the best selected regiments in the service could be accepted, if the regulations were to be rigidly carried out. A copy of the Regulations (May 1868) was shewn to the Section. The author of the paper contended that the teaching of military hygiene should be made more general at the medical schools, and not confined to those of Netley and Dublin. The lectures of the late Sir George Ballingall on Military Surgery, etc., at Edinburgh, were found very acceptable to the students. Mr. Ikin considered it a fair question for consideration whether the volunteer force ought not to undergo medical inspection. Perhaps they would not submit to it; but certainly, if their services were ever required for any lengthened time, medical inspection would become requisite, and ought not to be dispensed with.

The Introduction of Sanitary Teaching into our Primary Schools as an Indispensable Condition of Efficient Sanitary Reform. By J. H. BRIDGES, M.B.—He remarked that, though the necessity for centralised sanitary legislation was being generally recognised, yet much must always be left to local action. The objections to local action were the selfishness of the proprietors, and the ignorance of ratepayers. The first of these objections was irremovable; the second was removable. And it must be removed if sanitary measures, whether local or central, were to be really efficient. Now, although we could not teach physiology systematically in our national schools, we might frame a very short and simple sanitary catechism, containing a few essential and indisputable rules of health, the teaching of which should be as universal and as compulsory as the teaching of reading, writing, and arithmetic. The drawing up of such a catechism to be recommended to the Privy Council for adoption was the practical object of the paper.

Dr. GIBBON congratulated the Association on the reading of this paper, which pointed out the want which so generallly exists of the information so necessary to the public health. Want of knowledge of sanitary laws is at the base of the errors committed by the uninformed public. Physiology, perfectly practically taught, of seed sown early among all classes. He moved—"That the paper be referred to the Committee on State Medicine."—Dr. RUMSEY concurred in the belief that a certain amount of sanitary knowledge might be given, and that it should be given compulsorily, and seconded the proposal.—Dr. A. P. STEWART thoroughly believed that by circulating plain tracts, and by lectures such as those given in Manchester and Salford, information was well taken up by the public.—The proposal of Dr. Gibbon was agreed to.

Medical Education in England and Abroad compared. By F. OPPERT, M.D.—Dr. Oppert recommended the study of the systems adopted for medical education in other civilised countries, and the comparison with those of this country. He described the systems of Germany, Austria, France, Italy, Switzerland, Russia, Sweden, America, Great Britain, and the Colonies. He eulogised the mode in which certain subjects were taught in Germany, for instance, auscultation and percussion, but regretted that medical students paid too little attention to practical pharmacy. The stringency of the "Staatsexamen" for the licence for practice, and the laxity observed in others, were referred to. The management and usefulness of the polyclinical institutions were described. The reforms in Italy and Russia, the peculiarities of the Swedish system were narrated. In conclusion, the existing systems were classified as free and tutorial ones. The former was found in Germany, France, Russia, Italy and the continent of Europe generally; but at the same time the strictly tutorial system, combined with collegiate residence or without it, were represented by the military educational institutions found in Berlin, Petersburg, and Vienna. The Swedish students enjoyed the greatest amount of liberty; being not even obliged to adduce proof of having studied medicine when they became candidates for the state-licence. The reforms adopted on the Continent had mostly reference to a better system of making the student acquainted with disease at the bedside, be it in hospitals or the lodgings of the patients. Apprenticeships did not exist on the Continent. The fees varied considerably, as also the manner of their payment. They were lowest in Italy and Russia. Of all places where medicine was studied, none afforded more extensive means than London, and much could be done to utilise them in a more comprehensive manner.

The Mode of Admission of Patients in British Hospitals. By T. P. Heslop, M.D.—The object was to shew the serious evils which arise from the system of privileged notes, or subscribers' nominations. The chief illustrations of these evils were drawn from the report of Messrs. Bristowe and Holmes, contained in the sixth report of the medical officer of the Privy Council. The author declared the system to be an irony on charity, absurd in principle and disastrous in practice.

On the Mode of Admission to Hospitals. By Horace Dobell, M.D.—While it is the duty of the non-medical public to see that their money is spent upon the objects for which they intend it, it is the duty of the medical public to see that their brains, skill, and valuable time are not wasted or misapplied. In consequence of the new alterations in the poor laws, to whatever extent medical charities have been heretofore supported by their patrons and subscribers for the sake of supplying gratuitous medical relief to the poor, without regard to the severity or importance of their complaints, to that extent such charities can have no further claim on the support of the public after the new Poor-law dispensaries, infirmaries, and asylums are in working order. But it will never be permitted that our great medical charities shall suffer either depreciation or decay. A new sphere, more important than that they at present occupy, may be opened up for them, to which their customs and arrangements may be accommodated without serious difficulty. In the homes of those who can afford to pay for medical advice, a division of labour and skill has, from time immemorial, been found convenient and necessary. There has always been, and Dr. Dobell believed always must be, the "family doctor" to be called in for every complaint, without distinction, from a cut finger to a pneumonia or a fever, and the "consulting physician" and "consulting surgeon" to whom to apply for "further advice" in case of need. When every one who can afford to pay for medical advice is satisfied with this arrangement, it is absurd, when candidly considered, that those persons who cannot afford to pay a family doctor should be provided, by medical charities, with the advice of consulting physicians and consulting surgeons for all their trifling ailments. When the new Poor-law arrangements are in working order there will no longer be any excuse for this state of things. In future, no unselected cases ought to be admissible at charities supported by endowments or by voluntary contributions. These medical institutions should be employed solely in supplying, in cases of difficulty and importance, the consulting advice of physicians and surgeons to three classes of applicants: 1. The "better-off poor," who, though just able to pay a family doctor, cannot afford a consulting fee: 2. The destitute poor, to whom the Poor-law dispensary and infirmary will supply the important place of the "family doctor:" 3. Cases of emergency. To secure these modifications, blank forms of certificate, thus—"I am of opinion that A. B., residing at ——, is at the present time a fit subject for hospital relief"—should be given away at the hospitals and Poor-law dispensaries; and without such a certificate, duly filled up by a legally qualified practitioner, no case should be admitted to any medical institution not supported by the poor rates. Except in cases of emergency, when all restrictions should be dispensed with. By this simple means the following objects would be attained. 1. The funds of medical charities, provided by private munificence, would be reserved for special and selected services, instead of being scattered indiscriminately. 2. A bar would be placed in the way of that large class of persons who, at present, habitually impose upon public charities, while possessing ample means of paying for all that they require. 3. The time, brains, and health of the medical officers would be spared, so that they would be able to give advice with care and judgment, instead of at random and in haste. 4. The "general practitioner" would cease to be deprived of patients quite able to pay him, but too mean to do so, so long as they can get gratuitous hospital advice. 5. The "general practitioner" would be able, in cases of difficulty, to obtain for his poorest patients the same advantages of "further advice" that he is able to obtain for those who can afford to pay for it. 6. The consulting physicians and surgeons attached to hospitals would have the guarantee of one of their own profession that they were not being imposed upon by persons not fairly entitled to their charity. 7. There would be a much better field for clinical teaching in the out-patient room.

The Residential Conditions of the Lower Classes of Inhabitants of this Kingdom, with reference to Health and Complementary Conditions. By W. Rendle, Esq. He considered his audience and the profession in general singularly fit for the work required, they only of all classes seeing the condition of the lowest people in their homes. He noted the valuable contributions by Dr. Hunter in the seventh and eighth of Mr. Simon's Reports. House-room for the lower worker was becoming more scarce and less fit; that apparently systematic destruction of this kind of dwelling had been for some time going on, in the face of a steadily increasing population; and no real attempts were being made, to any appreciable extent, to supply this kind of people with suitable homes. He dilated upon the consequent evils—overcrowding, mixing of the sexes, and the results, incest, bastardy, infanticide, filthy and degraded habits, and, as a consequence rather than a cause of a degraded home, drunkenness, and generally an absence of religion and morality in any true sense. He adverted also to the production and spread of disease, especially fevers and the tubercular diseases in all their varied shapes; to a deterioration of race, especially in towns. He saw danger to the country in all this, as the lower people were everywhere getting to know that these conditions ought not to be. He proposed as remedies—1. A selection of the poorest and worst localities for investigation by a fully competent authority, so that, with new street plans, better buildings of the cheapest kind, suited to the wants of this people, might be extensively erected; 2. An organisation of the medical profession, irrespective of pure politics, for politico-social purposes, in behalf chiefly of the lowest people, now so universally degraded and helpless; 3. That many of the best men in the profession should, for these and other reasons, be members of the coming House of Commons.

The Prevention of Venereal Disease. By Berkeley Hill, Esq.—The author drew attention to the wide extent to which these diseases affect the population. The death-rate from syphilis steadily increases, being more than half as much again in 1866 of what it was in 1857. In the decade, 12,786 persons had died in England and Wales, of syphilis alone. The proportion of venereal disease in large provincial towns and in London, is computed at one-tenth of the total sickness; a proportion that gives annually in the twenty-one largest cities in England 113,000 men disabled by venereal disease. The author based his computation on the following facts. At St. Bartholomew's Hospital, 3,000 venereal cases are registered every year among the surgical out-patients alone; 25,000 at Guy's, and a like proportion at other hospitals. In Newcastle Infirmary 20 per cent. of all the patients are venereal. In Bristol, one-third to one-fourth of the surgical patients, at the two hospitals, are the same. In New York Children's Hospital, one in ten of the patients has inherited syphilis. Mr. Hill then proceeded to shew how easily venereal diseases have been arrested by the Contagious Diseases Act. In 1862, the proportion for the army generally was 291 per 1,000. In Devonport, in the second quarter of 1868, the average was between 2 and 3 per 1,000. Mr. Hill shewed how feasible the introduction of the Act into London and elsewhere promises to be. It meets with no opposition where it is enforced, and does much to raise the moral as well as the physical condition of the persons to whom it is applied. The essential conditions of sanitary regulations, Mr. Hill stated to be—regular periodical examination of all "common prostitutes," and detention of the infected while liable to communicate their disease, and that all prisoners should be examined before discharge from custody. Lastly, it should be a punishable offence for a diseased person to seek intercourse with a healthy one.

On Epidemics, studied by means of Statistics of Disease. By A. Ransome, M.B.—This paper was based upon monthly returns of disease, registered in public practice at Manchester and Salford, St. Marylebone, London, and Preston, extending over a period of eight years, 1860-1867, at the two former places, and fifteen months in 1865 and 1866 at Preston. The monthly records of cases of small-pox, scarlet fever, measles, whooping cough, bronchitis and catarrh, diarrhœa and dysentery, were projected in the form of curves, upon charts, which thus displayed the relative prevalence of these diseases. Conclusions were drawn from these data as to—1. Epidemic constitutions of different years. 2. Contagion. 3. Waves of epidemic disease. 4. The succession of epidemics. 5. Atmospheric influences. 6. Endemic influences. 7. Bodily predisposition to epidemic disease. 1. The opinions of the older writers, Hippocrates, Sydenham, etc., respecting the influence of wide-spread general causes upon epidemics, was shown to be correct by the remarkable correspondence between the curves of different epidemics at Manchester, Salford, and St. Marylebone. 2. The preponderating influence of contagion in spreading most epidemic diseases, was shown to be probable, from the nature of the curve described, and the regular character of this curve. 3. The wave of disease was described. 4. The singular succession of epidemics at Manchester and London, in 1861-3, and at Preston in 1865-6, was pointed out, and was shown to depend partly upon (5.) atmospheric influence. The power of heat and cold, dryness and moisture over disease, was adverted to,—diarrhœa in Summer, scarlet and typhus fevers in Autumn, bronchitis and catarrh in Winter, and measles and whooping cough in Spring. 6. Endemic influence was proved by the facts that measles and whooping cough, along with bronchitis and catarrh, are usually much more prevalent in the smoky towns of Manchester and Preston; cholera and diarrhœa, on the other hand, in St. Marylebone. 7. The subject of bodily predisposition to epidemic disease was discussed, and an attempt was made to show, not only that was general weakness a powerful predisposing cause of such diseases as typhus, but also that local weakness was not without its influence in producing a tendency to disease. In support of this statement it was shown, that those epidemic diseases which affect chiefly certain organs of the body were most common at the seasons of the year when other non-specific affections of these organs were prevalent. It was suggested that, if this conclusion were found to be correct, then both preventive and eliminative measures during an epidemic might be justified, and their rightful use defined. In conclusion, an appeal was made for the establishment of more general and accurate registration of disease throughout the country.

On Overcrowding. By E. Lankester, M.D., F.R.S.—Dr. Lankester stated that he was medical officer of health for one of the most overcrowded parishes in London. During the past year, the vestry were anxious to introduce the lodging-house regulations, and obtained a return of the number of persons living in twenty-five houses in the neighbourhood of Regent Street. It was found that in these houses there were 450 persons. Allowing for each person the government allowance of 500 cubic feet, it was found, on measuring the rooms, that there was only space for the dwelling of 198 persons, thus giving a surplus population of 250 people in twenty-five houses. Dr. Lankester believed there were at least one thousand houses in the parish of St. James that were equally overpopulated; thus giving a population of ten thousand persons who ought, for the sake of their health, to be removed from the parish. The objections to this wholesale depopulation were—1. That the people, if they were sent to the neighbouring parishes, would only increase overcrowding there; and 2. That, if the people were sent into the suburbs, they would be removed from their work, and thus become pauperised. The obvious remedy was to build lodging-houses in the parish sufficient to accommodate the people where they dwell and work at the present time. In St. James's, they had a block of lodging-houses—"Ingestre Buildings"—in which the health of the inhabitants was secured by preventing overcrowding. They contained three hundred persons; and such lodgings must by multiplied by thirty. Dr. Lankester believed we could only solve the difficulty of overcrowding by building large blocks of lodging-houses adapted to secure the health of the labouring classes in the districts where their labour enriches the more fortunate possessors of larger houses.

REPORTS OF SOCIETIES.

MANCHESTER MEDICAL SOCIETY.

April 1st, 1868.

Thomas Mellor, Esq., President, in the Chair.

Mr. F. A. Heath brought before the meeting a man on whom he had, two months previously, performed the operation of Excision of the Wrist according to the method recommended by Professor Lister. Passive motion was begun on the following day; and afterwards a splint of Mr. Heath's contrivance was applied, which allowed free motion, and yet gave firm support to the wrist. The wound was now almost healed, and the patient could do many things requiring considerable power of motion, such as writing, or drawing the cork from a bottle.—Dr. Finlayson, who had seen most of Mr. Lister's cases, bore testimony to the excellent results which were nearly always attained by his mode of operation.

Dr. W. Roberts showed a Kidney affected with Tubercular Pyelitis, which had been obtained at the dissection of a man aged 27. He had been under Dr. Roberts's care two years ago, and at that time was taking as much as two quarts of gin daily. General tuberculosis was found after death, with enlargement of the liver and spleen.

Dr. Roberts showed an excellent example of Hob-nailed Liver from excessive drinking two or three years ago; the organ was very much enlarged.

Dr. Braddon showed a cast of the mouth of a boy having one of his lower Canine Teeth in a curious position; namely, in front of the root of the tongue, almost immediately behind the central incisors.

Dr. Hardie exhibited a number of Midwifery Forceps contrived with a view to diminishing the bulk of the instrument. Referring to a paper he read before the Society some time ago, in which he advocated a very free use of this instrument in ordinary practice, he stated that he had seen no reason to change his mode of practice since then, and that it therefore became a matter of importance to have the forceps of less bulk than is usual. Those he showed had nearly all the serious objection of having each blade in two separate pieces; and he proposed, instead, a hinge, which he described, on the shank of each blade. He recommended, however, as an improvement on previous instruments, Sir J. Y. Simpson's modification of his combined long and short forceps; that, namely, without the shoulders. Dr. Hardie had used it frequently, and now preferred it in all cases.—Dr. Thorburn thought that Dr. Hardie's previous paper had had a very marked effect on the practice of midwifery in Manchester. But he objected to contrivances such as he now proposed, and did not think well of Professor Simpson's new forceps. He also drew attention to the priority of Mr. Roberton over Simpson and Barnes as to the length of the forceps. Several other speakers also alluded to Mr. Roberton's claim to priority, and spoke highly of his instrument, being occasionally successful with it when previous attempts with others had been fruitless.

Dr. Thorburn narrated a case of Craniotomy which he had lately met with. He thought that this operation was performed far too often; but in this case all other means were ineffectual. The peculiarity of the case was that the head had become impacted, apparently on account of the roominess of the pelvis. It had come down in the fourth position, and was attempting to rotate into the first, where it was arrested when lying transversely, and stuck fast. There was plenty of room for the forceps behind, but it was quite impossible to get a blade between the head and the pubes.

Dr. Thorburn also made some remarks on Vascular Tumours of the Female Urethra, and exhibited an instrument which he had contrived for their removal, combining forceps with scissors.

Dr. Thorburn also showed a Decidual Membrane. It presented a perfect cast of the uterus, which, in this case, had a tendency to be double-horned.

Dr. Simpson showed, for Dr. J. O. Fletcher, a large Thymus Gland removed from a youth aged 20. It consisted of a mass of fat, about the size of an orange, lying in front of the left lung and the pericardium.

The Secretary showed for Dr. Nesfield a specimen of Hypertrophied Urinary Bladder, the result of stone. It was removed from a child aged 7, who had had urinary difficulty since infancy.

Mr. Bradley read a short account of the Peculiarities met with in the dissecting-room of the Manchester School of Medicine during the session 1867-68. He remarked that the chief interest in recording such lay in its by-and-bye affording data for deducing laws of variation, although at present we were not in a position to do so. In twenty-six subjects dissected, only eighty-six peculiarities (myological and vascular) were observed, this being a much smaller proportion than Mr. Wood noted in King's College last year. The want of symmetry in the variation, and the fact that when a subject presented any striking irregularity there was pretty certainly found a goodly number of other irregularities, were as invariably observed as Mr. Wood seemed to suggest. Of the muscular abnormalities (of which Mr. Bradley principally treated), nine were mentioned as being specially remarkable.

LIVERPOOL MEDICAL INSTITUTION.

March 5th, 1868.

A. B. Steele, Esq., in the Chair.

Dr. De Zouche showed a Perforated Sternum, the result of Caries. It communicated with a fistulous opening, passing into a cavity in the right lung, which was also the seat of extensive tubercular deposit. There had been considerable purulent discharge through the opening, and a good deal of respiration took place through it. It had not caused any discomfort.

Mr. Harrison exhibited a specimen of Abnormal Arrangement of the large Branches of the Aortic Arch. The innominate arose towards the left side, gave off the left carotid about half an inch from its origin, and then passed to the right in front of the trachea, leaving only two or three of the upper rings uncovered. The external carotid on the right side was posterior to the internal.

Dr. Roberts showed a Fatty Kidney, which had been removed from the body of a patient who had died from phthisis. It was very large; the capsule separated easily. On section, it presented a pale yellowish colour, the cortical substance being much increased, and the pyramids indistinct. Microscopically, it presented fatty granules, and the tubes were almost completely filled by the epithelium, which presented abundant nuclei and granular contents. The lungs had cavities at their apices. The heart and liver were fatty, and there was calcareous deposit in the mitral valve.

Dr. Taylor exhibited an Instrument for applying Sulphurous Acid Vapour.

Mr. Harrison read a paper on the use of the Endoscope in Diseases of the Urethra and Rectum. Much had been done in this department by modern investigation; still there were some cases left in which the endoscope was of material service, either in aiding or confirming a diagnosis, or enabling direct applications to be made to parts hitherto considered inaccessible. The author gave a brief history of the instrument, and explained its construction. The various specula for examining the interior of the bladder were exhibited. In using them, it was necessary that the bladder should be washed out with tepid water until it returned perfectly limpid; and that the organ should be distended sufficiently to permit the instrument to be moved about its interior with facility. The author did not think the endoscope of much advantage in calculous disorders, as a rule, but it would be valuable where other evidence was scanty, as when the stone was lodged in a cyst or pouch-like dilatation. It was useful in determining the nature of morbid growths, villous and epithelial; and especially in enabling the surgeon to recognise a source of hæmorrhage, and apply the necessary treatment. It was in diseases of the urethra that the endoscope proved of very considerable service in bringing the diseased spot under ocular inspection, and affording a means by which remedies might be applied with an accuracy heretofore unattainable. The author described the mode in which the instrument was used in these cases, and exhibited sketches of the appearance which the mucous membrane of the healthy urethra presented. The endoscope was particularly advantageous in the chronic granular urethritis preceding true organic stricture. This stage of stricture alone admitted of permanent cure. On examining the urethra in such a case, a part of it—most probably about the bulb—was found more or less congested, and presenting granulations like those seen on a wound healing by second intention. If not checked, a stricture resulted, partaking of the characters of an ordinary cicatrix. It was, as a rule, entirely removed by the regular use of the bougie; but sometimes it resisted this, and then considerable benefit arose from astringent applications introduced through the speculum, by which they could be accurately applied, and consequently strong solutions might be used, such as nitrate of silver. For the relief of the advanced or permanent organic stricture, the endoscope was not likely to afford any material assistance. Internal division of a stricture had been practised through it, but the author preferred Civiale's urethrotome. The rectum could be readily explored by the endoscope; and it was available for those cases in which the disease was situated at its upper part, both for diagnosis and the application of remedies. The affections of the upper part of the rectum were usually—1, fistulous abscesses; 2, ulcers, remaining as such, or giving rise to sprouting granulations; 3, strictures, malignant or simple; 4, communications with other pelvic viscera, as the bladder. The author described a case of vesico-intestinal fistula, in which it had proved most valuable in determining the position and other characters of the opening, with the view of deciding as to whether colotomy should be performed. Another form of endoscope was exhibited, being a modification of the otoscope. It had the advantage that, by it two persons were enabled to observe the same object at the same time. This instrument might be used for examining other cavities of the body, such as the nares and the uterus.

A discussion followed, in which Dr. Oxley, Mr. Newton, Mr. Barrett, Dr. Glynn, Dr. Desmond, and Dr. Banks took part. Mr. Harrison replied.

Potable Water.—The Commissioners of the Westminster Improvements have justified their title by leaving sundry open vaults for so long a period as ten years as receptacles of every kind of filth, and as dangerous nuisances. Complaints had been repeatedly made to them, and they have cleared the filth out of the vaults; but it soon again accumulated. Ninety carcases of dead cats were removed from the vaults on one occasion, and twenty were found in the cistern of a house close by, the inmates of which had been drinking the water. This kitten-broth is a variation of the witches' soup which the inhabitants of the district, improved by the Westminster Commissioners, desire to dispense; and so, through the intervention of Dr. Aldis in the magistrate's court, they have undertaken to brick up the unused open vaults. *Dignus vindice nodus.*

The "Caustic Ligature".—M. Vallette, of Lyons, recommends strongly that, in treatment of erectile tumours by the multiple ligature, a seton, impregnated with chloride of zinc, be passed through the strangulated mass. Fifteen or twenty hours afterwards, he cuts down on to the subcutaneous caustic seton, and removes it, introducing a further quantity of caustic, if necessary. He says that this method is much less painful than the simple ligature, and more efficacious than it, or than the treatment by caustics only.

CORRESPONDENCE.

TREATMENT OF SUN-STROKE.

Sir,—Dr. Morehead is correct in his surmise that I quoted the first edition of his *Clinical Researches*. I regret that, until I read Dr. Morehead's note to you, I was not aware that, in his second edition, he has expressed his opinion that venesection should be altogether interdicted in the treatment of sun-stroke, although he still admits "that an occasional case occurs in which cautious venesection might be useful." Agreeing with Dr. Morehead in this latter opinion, I dissent from his interdict. I think that we should endeavour to learn what are the real indications for venesection; and these being present, we should not hesitate to resort to that unfashionable and unpopular mode of treatment. I take it that the indication for venesection is not, as is often supposed, fulness of the arteries, as shown by a full and firm pulse, but over-fulness of the veins, as shown by their turgid condition, by lividity of the features, and, it may be, by a small and feeble arterial pulse; the small and feeble pulse in the cases under discussion being a result not of cardiac weakness, but of pulmonary congestion and partial stasis of blood.

I am, etc., George Johnson.

Savile Row, August 1868.

PATHOLOGY OF LOCOMOTOR ATAXY.

Sir,—In my Address on Medicine, delivered at Oxford on August 6th, I stated that Mr. Lockhart Clarke endorsed the opinion that locomotor ataxy depended upon disease of the spinal cord only. This is not so. Mr. Lockhart Clarke, in the *Lancet*, December 30th, 1865, p. 729, writes thus: "I object to the practice of speaking of this disease under the term 'degeneration of the posterior columns of the cord'; first, because I have found the grey substance more or less affected; and secondly, because the lesions, as we have seen, are not confined to the cord." Mr. Lockhart Clarke adds, in a note to me on this subject which I have just received, that "Dr. Hughlings Jackson holds the same opinion on this matter as himself; nor" (he further adds) "does Dr. Duchenne dissent from it now, whatever may have been the opinion he formerly entertained."

I shall be much obliged by your giving insertion to this note, not only in justice to my friends whose views are here stated, but also as supporting opinions long held in this country, that ataxia is a cerebro-spinal lesion. I am, etc., William W. Gull.

REPRESENTATION OF THE MEDICAL PROFESSION IN THE MEDICAL COUNCIL.

Sir.—Mr. Walter Rivington hopes that before next year means will be adopted by the British Medical Association to collect the opinion of the profession at large on the subject of the representation of the profession in the Medical Council. As he says, there are two plans of representation, *direct* and *indirect*. The latter seems to me much the best, on account of its fairness, because every surgeon would thus be entitled to vote for his collegiate representative, and because the number of representatives would not be increased. Thus expense would be saved, and there would be no new Act of Parliament required; which would be the case if the direct plan of representation, so ably advocated by Mr. Rivington, were to be the order of the day.

As the champion of direct representation, Mr. Rivington thinks it unfair, that the corporation of the College of Surgeons of England should be at the expense of collecting 12,000 votes. He asks "is the voice of English surgeons to be drowned to give the profession representation?" Surely, if the College of Surgeons of London return, by the votes of its Fellows and Members, a representative in the Medical Council, I then maintain that the English surgeons are duly represented. I think Dr. Prosser James's plan of indirect representation much the best; for, in giving every surgeon a vote, whether Fellow or Member, pure or general surgeon, one would stand a chance of seeing elected a candidate, the favourite of the profession generally speaking, and one who would be calculated to watch over not only the interests of the College of Surgeons, but also the interests and welfare of the British surgeon of every grade.

Cambridge gives a vote to all on the Senate, that is, all M.A's. and Doctors in either faculty who keep their names on the books; why should the corporations be less liberal? Of course the same manner of election would hold good in the case of the College of Physicians, of the Apothecaries' Hall, &c. If a college is to be represented fairly and honestly, let all on the roll of such college, whatever their collegiate rank may be, have a vote alike, or else how can such a college be represented? If the Fellows only have a vote, it looks very much as if the Fellows only were represented, not the college. It seems curious that Mr. Rivington should say "let the medical graduates of the University of London, and not the senate, elect the university representative;" and then not be willing to do the same in the case of the College of Surgeons. However, let us hope and trust that, whatever plan be chosen, it may ultimately turn out to be the best, and work well for the *bonâ fide* good of the medical profession in all its branches. I am, etc.,

HENRY W. WILLIAMS, C.M., M.D.

168, Fulham Road, S.W., August 1868.

SIR,—A few words in reply to Dr. Rivington's letter may appear to you of sufficient interest to warrant a space for it in the invaluable JOURNAL over which you preside.

Dr. Prosser James' plan for reform of the Medical Council does not involve the necessity for, nor the risk in, seeking an Act of Parliament. I am of opinion that to alter the number of representatives would necessitate a remodeling of the present Act. Again, Dr. Prosser James considers that the fact of holding a diploma of any college in these kingdoms should entitle the holder to a vote in the election of the member of Medical Council for said college. Now, although this plan may be objected to by many gentlemen who have given the subject consideration, nevertheless, to my mind, it appears the proper, and decidedly the just, proposition. With regard to the objection on account of the expense necessary in order to collect the votes—should members, etc., of colleges become voters—this objection I hold to be of minor importance viewed in comparison with the great and main question, which is—Should members, etc., elect their *own* representatives? For argument's sake, let us presume that the Royal College of Surgeons, London, numbers on its rolls 12,000 members. Surely the expense of collecting the votes of these members would simply be in proportion to that necessary to collect the votes of other colleges, the rolls of which may not contain a tithe of that number. The "working expenses" of such colleges must be, however, very considerable; yet, as all colleges charge "pretty sweetly" for their diplomas, and give "nothing for nothing," their "clients" might receive from them now and then the boon of post-paid voting papers, or like documents.

To conclude this hurried note, let me say that, if Fellows be privileged to vote, as put by Mr. Rivington, such privilege will be simply in accordance with Dr. Prosser James' proposition—a proposition which is sure to be carried to a successful result ere many more sessions of the Medical Council become "facts of the past."

I am, etc., R. L. JOHNSON.

61, Charrington Street, August 1868.

PRESCRIBING DRUGGISTS.

SIR,—I think that our Association might be invaluable in endeavouring to suppress a pernicious practice at present existing in London; I refer to druggists treating medical and surgical diseases. Much has been done by this powerful medium in other affairs, and certainly much good might be done in this matter. Yesterday a patient applied to Dr. Groth, at the Islington Dispensary (who was, however, transferred to me), having a severe orchitis, with inflammation of the spermatic cord extending to the abdomen. He stated he had had a gonorrhœa, and he went to a druggist in the Minories, who undertook to treat him. He was charged 5s. for the first interview, and 3s. 6d. for each subsequent one; altogether he had paid the druggist about 24s. or 27s. including medicines. His first visit was on June 7th, his last July 9th; and he was seen twice or three times a week. When I saw him, there was acute inflammation of the right testis and cord, with great swelling and tenderness along the inguinal canal; he was wearing a suspender, and the testicle appeared to be surrounded with a belladonna plaster.

This is not the only case that has come under my observation. Two druggists in my immediate neighbourhood, I discovered, treated cases. One had been treating an orthopædic case; the other a case of catarrhal inflammation of the eye in a child. In the latter case, strong astringent lotions had been used, which produced chemosis; he then ordered a poultice to be put on the eye. A medical friend happened to call just as the poultice was being made, and saved the child's eyesight by operating. Trusting that this subject may receive the attention of the Association, I am, etc., GEORGE CHARLES COLES.

2, Codrington Terrace, Kensington Park, W., July 1868.

EDINBURGH UNIVERSITY CLUB.—The quarterly dinner of the Club was held on Wednesday evening, August 12th, at the Crystal Palace. The chair was occupied by Professor Laycock, and Drs. Sieveking and Lavies acted as croupiers. There was a numerous attendance of members and guests.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

THE GALWAY UNION.

THE Dispensary Committee, and the Board of Guardians, of the Galway Union, have lately recommended that the salary of their medical officer, Dr. Duggan, be increased from £90 to £110. The proposal having been referred for sanction to the Irish Poor-law Commisioners, a letter was received by the clerk of the Galway Union, promising attention to the matter, and stating that the Commissioners "would be disposed to fix the salary at £100 a year."

DR. ROGERS AND THE MEDICAL MEMBERS OF THE POOR-LAW BOARD.

SIR,—In the report of the meeting of Poor-law medical officers on June 24th last *(Poor-Law Chronicle)*, I find the following remarks by Dr. Rogers.

"Medical officers, having a recognised responsible head to refer to for the decision of disputed points, would not be again likely to be removed on the grounds of supposed antagonism, want of deference and courtesy. [*Laughter.*] I know it may be said the Poor-Law Board had two medical advisers already. Why could they not be satisfied? I can, however, but express an opinion that the presidents had been singularly unfortunate in their selection of these gentlemen. [*Cheers.*] Neither of them had ever been known to be in any way associated with Poor-law matters, or ever visited the interior of a workhouse before they had been elevated above the heads of many more able gentlemen who had grown grey in the service. [*Loud cheers.*] Added to which, being united to a bad and effete system of management, they had cast in their lot with the office as it was, and were now as obstructive as any official there. [*Cheers.*]"

Dr. Rogers was arguing on the necessity of having a medical department at the Poor-law Board. Now, I would ask Poor-law medical officers if they really think they are likely to promote the object of increasing medical influence at the Poor-law Board by cheering the remarks of Dr. Rogers as above given? That Dr. Rogers should feel aggrieved, rightly or wrongly, against every body connected with the Poor-law Board I can understand; though I may question his good taste in introducing personal matters at such a time, and as President of the Association. The two gentlemen who were pronounced inefficient and worse by Dr. Rogers, and the statement as to whose inefficiency, etc., was "cheered" by the Poor-law medical officers, were, when appointed, accepted by the medical press as good and proper men for the offices they hold. Now, I would ask, in the name of common sense, whether such remarks and such cheering do not give to the Poor-law Board a strong argument against increasing the medical staff at the Poor-law Board? These two gentlemen hold, at all events, some position in the profession; and both are pretty well known as having opinions of their own, and as being able to maintain them. Moreover, I would ask the Poor-law medical officers who cheered the remarks, whether they really have any grounds by which to justify their cheers? My own opinion is that, if Poor-law medical officers knew their own interests and had been just and true to themselves, they would have deprecated instead of cheered their President's language.—I am, etc., A POOR-LAW MEDICAL OFFICER.

London, July 1868.

RAILWAY ACCIDENTS.—At the half-yearly meeting of the Directors of the London, Brighton, and South Coast Railway, it was reported to the proprietors that the compensation for accidents, including the law costs, amounted to £5,185 : 9 : 11.

CONVICTION OF AN UNQUALIFIED SURGEON.—We are glad to observe that one Thomas Holland, of Oldbury, was fined at the Halesowen petty sessions in two sums of £5 each, for having taken and used the name and title of surgeon, he not being qualified. There were nine other cases against the defendant, but these were withdrawn, as the object of the prosecution was attained by the judgment in the former cases. It appears this man had signed certificates of death, and had acted as surgeon to a friendly society for many years. He had practised in Oldbury for many years without any interference from the medical men of the place; but having lately placed himself in an antagonistic position to them in the club question, they felt it their duty to take the present proceedings to protect their professional interests.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 13th, 1868.

Bedford, Charles Frederick, Sleaford, Lincolnshire
Hadley, George Percival, Birmingham
White, John Campbell, Westminster
Whiteford, Caleb Charles, St. John's Terrace

At the same Court, the following passed the first examination.

Duke, Bernard, King's College Hospital
Lacey, Thomas Warner, Guy's Hospital
Lucas, Robert Harvey, Middlesex Hospital
Marsh, Walter Alfred, Guy's Hospital
Taylor, Joseph Ogilvie, University of Edinburgh

ARMY MEDICAL SERVICE.—The Director-General presents his compliments to the Editor of the BRITISH MEDICAL JOURNAL, and begs to enclose for insertion a list of candidates of Her Majesty's British Medical Service, who were successful at the competitive examination in February 1868, and who have passed through a course at the Army Medical School, shewing the combined results of the examination.

Order of merit and names.	Studied at	No. of marks.
1. Lewis, T.	London and Aberdeen	5452
2. Dobson, G. E.	Dublin	4855
3. Fraser, J.	Belfast	4563
4. Williamson, N. A.	Edinburgh	4375
5. Walker, J.	Dublin	4295
6. Ryan, G. W.	Dublin	4177
7. McSwiney, E. N.	Cork	4170
8. Conyers, J. S.	Edinburgh	4155
9. Fitzgerald, R. G.	Dublin	4137
10. Ussher, J. H.	Dublin	4008
11. Leader, J.	Edinburgh and Cork	3980
12. O'Brien, J. A. G.	Cork	3976
13. Gasteen, W. C.	Dublin	3968
14. Anderson, R. F.	London	3910
15. Geoghegan, W.	Dublin	3825
16. L'Estrange, A. H.	Edinburgh and Dublin	3627
17. Kirwan, A.	Dublin	3607
18. Jones, C. E.	Dublin	3503
19. Knox, J. M.	Dublin	3460
20. Craig, R. M.	Dublin	3423
21. Rahilly, J. R.	Dublin	3362
22. Brown, A. L.	Dublin	3310
23. Macrobin, A. A.	Aberdeen	3281
24. Waghorn, F.	London	3175
25. Jennings, C. B.	Dublin	3155
26. Garde, W. H.	Cork	3073
27. Reynolds, J. H.	Dublin	2950
28. Burford, H. H.	London	2915
29. Jackson, T. W.	Glasgow	2913
30. Thornton, D.	Dublin	2910
31. Latchford, J.	Dublin	2775
32. L'Estrange, G. W.	Dublin	2732
33. Frazer, P. F.	Dublin	2688
34. Campbell, W. G.	Dublin	2670
35. Samuels, W. Z.	Dublin	2614
36. L'Estrange, F. A.	Dublin	2454
37. Eager, O. S.	Dublin	2428
38. Parke, Duke	Dublin	2379

MEDICAL VACANCIES.

THE following vacancies are declared:—

CASTLEDERG UNION, co. Tyrone—Medical Officer for the Drumquin Dispensary District.
DEVON COUNTY LUNATIC ASYLUM, Exminster—Assistant Medical Officer.
LAUNCESTON UNION, Cornwall—Medical Officer for District No. 2.
LEEDS PUBLIC DISPENSARY—Resident Medical Officer.
LIMERICK UNION—Apothecary to the City of Limerick Dispensary.
LOCHBROOM, co. Ross and Cromarty—Parochial Medical Officer.
MACCLESFIELD DISPENSARY—House-Surgeon.
OMAGH UNION, co. Tyrone—Medical Officer for Drumquin Dispensary District.
OPHTHALMIC HOSPITAL, Southwark—Surgeonship.
QUEEN'S HOSPITAL, Birmingham—Physicianship.
ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.
ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street—Surgeon.
STAFFORDSHIRE GENERAL INFIRMARY, Stafford—House-Surgeon and Secretary.
STRATHMIGLO, Fifeshire—Parochial Medical Officer.
TRINITY COLLEGE, Dublin—Professor of Botany.
WESTERN GENERAL DISPENSARY, Marylebone—Physician-in-Ordinary.
WESTMINSTER GENERAL DISPENSARY—Resident Medical Officer.
WYCOMBE UNION, Bucks—Medical Officer for District No. 5.

MEDICAL APPOINTMENTS.

*BEIGEL, Hermann, M.D., appointed Physician to the St. Pancras and Northern Dispensary, *vice* A. Bealey, M.D.
COOK, John, M.D., appointed Physician to the Marylebone General Dispensary, *vice* R. D. Powell, M.D.
FRANK-SMITH, Wm., M.D., re-elected Physician to the Sheffield Public Hospital.
*MACLEOD, George H. B., M.D., appointed Surgeon to the Royal Infirmary, Glasgow.
PERRY, Robert, M.D., appointed Physician to the Royal Infirmary, Glasgow.
THOMSON, Thomas S., Esq., appointed House-Surgeon to the Leith Hospital.

ARMY.

CURRIE, Deputy-Inspector S., M.D., C.B., to be Inspector-General.

VOLUNTEERS.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

FERGUSON, James, Esq., to be Assistant-Surgeon 1st Administrative Battalion Elginshire R.V.
IRVINE, J. W., Esq., to be Assistant-Surgeon 1st Lancashire R.V.
JAMESON, George, Esq., to be Honorary Assistant-Surgeon 1st Lincolnshire Light Horse Volunteers.
NEWBY, Thomas, M.D., to be Assistant-Surgeon 2nd Lincolnshire A.V.
RICHARD, Benjamin M., M.D., to be Assistant-Surgeon 3rd Dumbartonshire A.V.

MARRIAGES.

HARMAN, Henry M., Esq., to Sarah Elizabeth, only child of Francis H. THOMSON, M.D., at Glasgow, on July 14th.
JONES, Richard, Esq., Surgeon, of Aure, Gloucestershire, to the only child of Thos. Ambrose WHITE, Esq., of Surbiton, Surrey, on July 25th.
THOROLD, Ellis F., M.D., to Ellen Clara, youngest child of Vice Admiral Sir John KINGCOME, K.C.B., of Plymouth, on July 21st.
THURSFIELD, Thomas W., M.D., of Leamington, to Alice, only daughter of Matthew HEATH, Esq., of Wolverley, Worcestershire, on August 19th.
TRENERRY, Charles J., M.D., to Louisa, second daughter of the late Richard L. HEPPER, Esq., at Gibraltar, on June 25th.

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RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from August 12th to 18th (both inclusive).

Taken at Kew, by Dr. TREUTLER, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.741
Highest reading of do. (corrected and reduced), on 15th, at 10A.M.	29.925
Lowest ditto Ditto on 13th, at 2 P.M.	29.517
Range of pressure during the week	00.408
Mean temperature of air in shade	65.3
Mean temperature of evaporation	62.6
Mean degree of humidity (saturation=100)	85.
Mean maximum temperature of the week	71.6
Mean minimum temperature of the week	56.5
Calculated mean temperature of the week	64.05
Maximum temperature in shade, on 14th	73.8
Minimum temperature (protected), on 14th	50.6
Minimum temperature (exposed on grass), on 14th	42.4
Range of temperature during week	31.4
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 15th	136.9
Lowest ditto ditto on 13th	76.6
Mean amount of clouds (0—10)	7.4
Total rainfall (which fell on 13th, 14th, 16th, 17th, and 18th)	1.145 inch
Mean amount of ozone (0—10)	5.0

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	3	0	0	2	1	1	0	0	3
2 P.M.	0	2	0	2	2	1	0	0	0	3
10 P.M.	0	2	0	0	2	0	1	0	2	2

Mean force of wind (0—12) 2.6

The week has been for the most part dull and rainy, the sky obscured by clouds, and the humidity much increased. Atmospheric pressure has been diminished and rather unsteady, though the range has been confined to narrower limits than before. Temperature has decreased, and was more uniform. Wind have been light and variable, blowing chiefly from S. and N.E. The general health is good.

Kew, August 19th, 1868.

WILLS AND BEQUESTS.—The late Mr. Everett Allenby, of Regent Street, and Surbiton, Surrey, amongst other legacies, has left to the Charing Cross Hospital, £500; Cancer Hospital, Brompton, £500; Rupture Society, £200; Consumption Hospital, Brompton, £150; besides several other charitable bequests.

MÖLLER'S COD-LIVER OIL.—From a copy of a document signed by the President (Dr. Otto Lund) and the Secretary (Dr. Holst) of the Norwegian Medical Society, and authenticated by the acting British Consul at Christiania, we learn that at a meeting of the Society on January 15th, the subject of the medicinal use of P. Möller's cod-liver oil was discussed. It appears that the physicians to the Christiania Hospital, and the profession generally in that city, rarely, if ever, prescribe the brown oils, and when they do so, from economical reasons alone, having a decided preference for the pale oil obtained by Mr. Möller's mode of preparation; the latter having been proved by experience to be equally powerful in its therapeutic action, far less nauseous, and much easier of digestion.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

IT is particularly requested that, during the month of August, all communications whatever relating to the JOURNAL should be addressed to the office, 37, Great Street, and NOT TO THE HOUSE OF THE EDITOR, who is absent from town.

HOSPITALS AT MADEIRA.—M.B. (Bath) wishes to know whether there be a convalescent or other hospital at Madeira, to which phthisical patients can be sent for the winter from England; and, if so, how admission may be obtained to such institution.

ERRATA.—In Mr. Wrench's letter on Heat-Apnœa, published in last week's JOURNAL, at page 179, col. II, line 25 from bottom, *for* "drawing" *read* "driving"; and at page 180, col. I, line 9, *for* "this can but be done" *read* "this can best be done".

THE WEST INDIA MAIL COMPANY'S SERVICE.

SIR,—I shall feel obliged if any of your correspondents will give me some information concerning the appointment of Surgeon to the Royal West India Mail Packet Company, especially as to the pay and position accorded; and whether any uniform is required; and, if so, its cost. I enclose my card, and thanking you in anticipation,

August 1868. I am, etc., DELTA.

L. P. P. S.—There is nothing in the present Medical Act which can prevent any one holding the M.D. degree of a foreign college from putting "Doctor" on his door.

THE OXFORD MEETING.—The names of Dr. Tilt and Sir D. Gibb should have appeared in the list of members present at the Annual Meeting.

SULPHURIC ACID TREATMENT OF DIARRHŒA.

SIR,—Will you allow me space to solicit that a trial may be made, in the cases of diarrhœa now so prevalent, of the dilute sulphuric acid (*Ph. Lond.*), in doses of twenty minims in one ounce of water, after each loose motion? In urgent and neglected cases, I always give thirty minims in the first dose. Since I published the cases of choleraic diarrhœa in September 1857, successfully treated on the above system, I have continued to prescribe the acid up to the present writing with unmistakably beneficial results. In conclusion, I would add that the effect of the acid is truly marvellous. I am, etc.,

Belgrave Road, August 1868. WILLIAM GRIFFITH, M.D.

A MEMBER OF THE B. M. A.—Professor Acland of Oxford is one of the Trustees of the Hunterian Museum. You will find a list of those members who attended the meeting in the last number of the JOURNAL.

M. P.—It is not considered unprofessional for a qualified medical man to hold the office of Registrar of Births and Deaths.

THE WATERS AT SPA.

SIR,—At a time when, more than ever, mineral waters occupy the attention of the profession, any progress in relation to them must, it appears to me, be interesting. The long promised new bath-house at Spa, intended to be the most perfect of its kind in Europe, was opened to the public on Thursday, the 18th of June. This splendid edifice, in the new Grecian style, has been erected at a cost of upwards of £80,000, and seems in every way capable of realising all anticipations with regard to its success as a balneological institution. No description of bath appears to have been forgotten. The supply of the chalybeate is derived from a new spring, the Nivésé, richer in bicarbonate of iron than the celebrated position itself—the proportion being as 0.932 to 0.768, and yielding more than 1000 gallons per hour. When heated to the highest temperature ever employed for balneary purposes, it retains its translucency, and is so highly charged with carbonic acid gas, that myriads of pearl-like bubbles continue during the whole period of immersion to rise to the surface with apparently undiminishing vivacity.

I consider it a duty to my professional brethren in England to make the present statement, in order that they may not remain under the impression that this distinguished watering-place can only offer the turbid unsighty baths of times gone by, when, through the defective mode of treating, partial decomposition became a necessary consequence. The insertion of this letter in your excellent JOURNAL will oblige, etc., THOMAS CUTLER, M.D.,

Spa, July 1868. Resident Physician at Spa.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

ETHER-SPRAY IN SUN-STROKE.

SIR,—Allow me to suggest the use of the ether-spray over the back and front of the chest in cases of sun-stroke, or heat-apnœa, as Dr. Johnson has termed it. Medical officers, marching with their regiments in tropical countries, might lose valuable time in endeavouring to obtain pails of water; whereas, a supply of ether and Dr. Richardson's apparatus might easily be carried, and so a ready means of inducing intense cold be always at hand. I am, etc.,

Rolvenden, August 1868. THOS. JOYCE, M.D.Ed.

ROYAL COLLEGE OF SURGEONS.—The library and museum of this institution will be closed from Tuesday, the 1st, until Wednesday, the 30th of September.

ETHER AND ETHERISED COD-LIVER OIL IN THE TREATMENT OF PHTHISIS.

SIR,—Will you allow me to reply in your columns to the many inquiries addressed to me respecting the composition of the etherised cod-liver oil?

I have three formulæ. No. 1 consists of ten minims of pure ether (æther purus, *P.B.*) in two fluid-drachms of cod-liver oil. Nos. 2 and 3 consist respectively of fifteen and twenty minims of pure ether in the same quantity of oil. The dose of etherised oil to commence with is two fluid-drachms. In some cases, the ether may be given in the same or larger doses in water before meals.

Birmingham, August 1868. I am, etc., BALTHAZAR FOSTER.

ELECTRO-THERAPEUTICS.

SIR,—A statement is made in your recent article on Electro-Therapeutics, which calls for remark. You say: "Frictional electricity, though formerly much employed in medicine, is now entirely superseded by the use of the Galvanic and Faradic current"; whereas frictional (Franklinic) electricity is extensively used, both in hospital and private practice, by some of the most active members of the Electrical Committee of the Royal Medical and Chirurgical Society; and it is thought by those best qualified to express an opinion on the subject, that it will eventually prove, to say the least, to be not less deserving of confidence than Voltaic or Faradic electricity. I am, etc., E. SYMES THOMPSON, M.D.,

Honorary Secretary to the Committee of the Royal Medical and Chirurgical Society on Electricity as a Remedial Agent.

*** We are much indebted to our correspondent for pointing out a *lapsus* which we had corrected in the proof of our first article, but the printer failed to make the necessary alteration. The words ought to be: "is now *almost* entirely superseded." We could not but be aware that frictional electricity is used by some; and we are much interested in the information given us by our correspondent regarding its extensive use by some of the members of the Electrical Committee; and we sincerely hope that they will furnish us with the results of their experience. We confess that we have seldom seen it employed, and have been guided by what we have been able to find in the most recent text-books of electro-therapeutics. Meyer, in an excellent work (*Die Electricität in ihrer Anwendung auf Practische Medicin.* Third edition, 8vo, pp. 416. Berlin: 1868), says (p. 9): "the various modes of using frictional electricity belong more to past than to present therapeutics"; and Benedikt, in a most learned work (*Elektro-therapies*, 8vo, pp. 487. Vienna: 1868), says (p. 1), that frictional electricity and the induced electricity produced by rotatory machines, "are now little used"; and, with this remark, he dismisses the subject of frictional electricity. In the appendix to the second part of his work, which has appeared only quite recently, he however says that his researches lead him to conclude that "there is no diseased state in which static (frictional) electricity can attain a result which is unattainable by other kinds of electricity." This is the opinion of one who deserves to rank among the very highest authorities on the subject. We therefore look forward with much interest to the results of the observations made by the members of the Electrical Committee.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Birmingham Daily Post, August 15th; The Galway Vindicator, August 12th; The Wiltshire County Mirror, August 19th; The Newcastle Daily Chronicle, August 14th; The Exeter and Plymouth Gazette, August 17th; and The Western Morning News, August 18th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. C. Holmes, Slough; Mr. E. M. Wrench, Baslow; Mr. J. Sawyer, Birmingham; Sir D. Gibb, Bart., London; Mr. E. A. Fitzgerald, Jounpore, India; Mr. H. Lee, London; Mr. H. Appleton, Luton; Dr. Tatham, London; Dr. T. M. Lownds, Pensford, Somerset; Dr. Clay, Launceston; Mr. Keevill, Clifton; Dr. Struthers, Aberdeen; Mr. H. P. Wood, Rochdale; Dr. Henry Barnes, Carlisle; Mr. Dunn, Hurst Green; M.D.; Dr. Tilt, London; Dr. R. W. Falconer, Bath; Dr. Kernot, West Cowes; Dr. J. U. Huxley, Exeter; Mr. J. Macdonald, Lincoln; Dr. Wolfe, Aberdeen; Dr. Grimshaw, Dublin; Mr. H. S. Taylor, Guildford: and Dr. P. Leslie, Birmingham.

LETTERS, ETC. (with enclosures) from:—

Dr. Guinness, Dublin; Mr. J. Manley, West Bromwich; Dr. Taylor, Derby; Dr. J. Williamson, London; Dr. B. Foster, Birmingham; Mr. Spencer Wells, London; Mr. H. Smith, Hove; L. F. P. S., Birmingham; Dr. Joseph Bullar, Southampton; Mr. St. George Mivart, London; Dr. John Murray, London; The Registrar-General of Ireland; The Registrar-General of England; Mr. T. M. Stone, London; The Secretary of Apothecaries' Hall; Mr. Holmes Coote, London; Dr. G. Johnson, London; Dr. Bristowe, London; Mr. T. Pope, Cleobury Mortimer; Mr. A. Ransome, Manchester; Dr. W. T. Gairdner, Glasgow; Dr. E. Haughton, Malvern; Mr. Lund, Manchester; Brighton; Dr. G. Philipson, Newcastle-upon-Tyne; Rev. Dr. S. Haughton, Dublin; Dr. Nelson, Birmingham; Mr. J. G. Wilkinson, London; Dr. A. P. Stewart, London; Dr. Treutler, Kew; Dr. Fleming, Birmingham; Dr. J. Reid, Newbiggin-by-Sea; Mr. Weatherhead, Prees; M. P.; Mr. Clendinnen, Cheswardine; Dr. J. Pollock, London; Mr. Reginald Harrison, Liverpool; Mr. T. Bryant, London; Dr. Langdon Down, London; and Mr. C rgenven, London.

LECTURES
ON THE
PRINCIPLES OF SURGICAL DIAGNOSIS:
ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

By F. LE GROS CLARK, F.R.C.S.,
Surgeon to St. Thomas's Hospital, and Examiner in Surgery in the University of London.

LECTURE III.—*Concluded.*

Temperature in Shock, and Reaction—Shock in Relation to Operations—Value of Stimulants in Diagnosis—Causes of Fatality in Shock.

Temperature is a sign of considerable importance, as diagnostic of the intensity of shock and of the energy of reaction, as well as of many allied conditions resulting from various causes; and, as I have already remarked, a careful study of the subject will well repay the pathologist for the time and trouble he may bestow upon it. In an admirably arranged and philosophical Essay on Shock, by Mr. Jordan of Birmingham, the author introduces some interesting statistics respecting temperature; his results are in great measure, though not wholly, in accordance with those which I have obtained, with the able assistance of my friend and former pupil, Mr. Wagstaffe, now the surgical registrar at St. Thomas's Hospital.

In simple *Shock* and *Reaction*, the fall in temperature appears to average about one or two degrees, as tested at the time of the patients' admission into the hospital—generally about half an hour or an hour after the accident; and the reaction is marked by a rise in temperature to over 100 deg., and usually below 103 deg., within the next thirty-six or forty-eight hours. When the shock is complicated by the occurrence of *Hæmorrhage*, even to a moderate extent, the fall in temperature has appeared, in some instances noticed, to be in excess of what might have been anticipated; in excess, that is, of the consequence of direct shock, plus the direct consequences of simple hæmorrhage. In one remarkable case of cut-throat, in a man of 63, the thermometer registered 91.2 deg. one hour after the injury, and remained at this standard, without varying, for another hour; and the highest point it reached, during reaction, was 100.1 deg. in twenty-four hours. The hæmorrhage was not excessive in this instance, and the patient recovered. His normal temperature was about 98.4 deg. Probably mental shock may have had some influence in producing this remarkably low temperature.

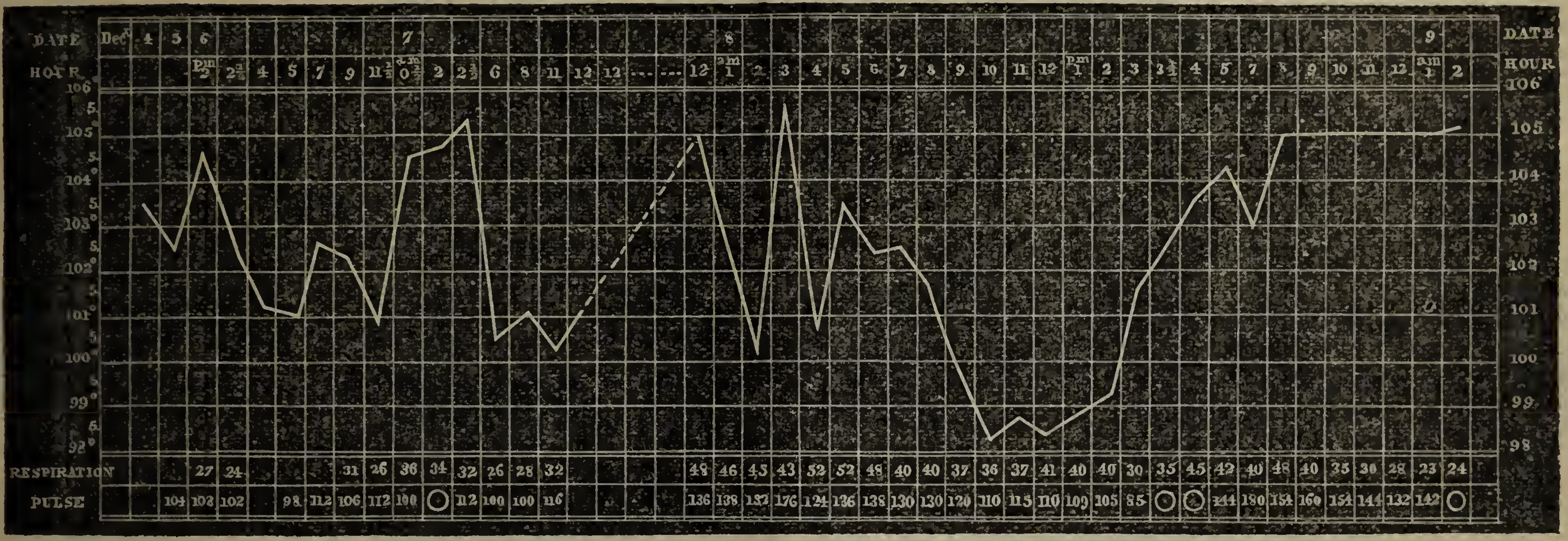
In *Rigor*, the temperature rises always shortly before the commencement of the attack, and remains high for a varying length of time,—generally about half an hour after the termination of the shivering. In the rigor of pyæmia, the height to which the temperature may rise appears to vary with the acuteness of the disease; ranging between 100 deg. and 106 deg.

In *Operations*, there was usually a fall of about half a degree, during or after the operation in those cases which recovered. Chloroform seems to exercise little or no influence on the temperature, under these circumstances. In the fatal cases, no such fall took place. The temperature has been rarely observed to fall below 97 deg. during the shock consequent on an operation. In one case of amputation in which I had it tested, there was no change in the reading of the thermometer during the incision through the bone.

In the *Reaction* succeeding an operation, if the temperature exceed 104 deg., the prognosis is decidedly unfavourable; but not necessarily so, if no rise occurs, provided the general condition of the patient be not otherwise unsatisfactory, as tested by the circulation, respiration and degree of prostration. Yet, it should be remarked, there is not the same definite relation between temperature and the heart's action and breathing, after the infliction of injury by violence as in medical fevers. The maximum temperature is reached in from twenty-four to forty-eight hours after operation, in cases which recover. In falling from the highest point, the descent is usually gradual and steady till the normal standard is reached; and there it is arrested.

Before *Death*, in acute sthenic diseases, the temperature rises till the time of death; and it is higher, just before death, in cases of inflammation following brain-injury, than in other cases recorded in the surgical wards. I shall exemplify this fact in a future lecture; and I may now remark that the highest death temperature of which we have a record was 106 deg., in a case of abscess of the brain complicated with pyæmia, to which the accompanying chart refers.

Scalp-wound: Concussion: Suppuration in Brain: Pyæmia: Death Twenty-two Days after Injury.



Where no reaction takes place after head injury, the temperature has been registered, before death, as low as 89.6 deg. The *lowest* temperature of which I have a record, where recovery took place, is that which I have already mentioned of cut-throat. Several cases of shock registered as low as from 96 deg. to 93 deg., and subsequently recovered. The *highest* temperature registered in cases discharged well, was 105 deg., in reaction after complicated fracture.

I have thought it desirable to throw these remarks together, though they are not all pertinent to the subject immediately under consideration. I shall reserve some further observations I have to make on temperature in shock associated with head-injury, until a future lecture.

Reaction implies pre-existent shock; it is the living organism—subdued, confused, narcotised by violence; bowed down but not broken—rising with a rebound, which exalts its functions beyond their normal standard, and may thus prove, by its excess, destructive. This result, however, is practically limited to head-injuries, unless some mortal lesion have accompanied the shock, or reaction bring with it fatal hæmorrhage. The period at which reaction comes on or is fully established, varies considerably according to the nature of the injury, the degree of depression, and the age and condition of the patient. The shock inflicted by operations is that which most interests the surgeon, and that which he naturally watches with most anxiety and care. And yet, as experience ripens, we feel less anxious about excessive reaction, as we learn to view its symptoms as the necessary precursors of healthy repair. In capital operations, unless much blood has been lost, from eighteen to twenty-four hours generally suffices for such an amount of reaction as is indicated by the ordinary so-called febrile symptoms. The pulse is quickened, the skin hot, the tongue furred, and there is thirst. This condition is accompanied, simultaneously, by manifestation of increased local action at the seat of operation. Consequent on the culmination of these symptoms somewhat later, not infrequently the second and even the third night after an operation are passed more restlessly than the first. Yet, so far from being a source of alarm, we accept the very activity of these reactive signs as a measure of nature's resentment of the injury inflicted, and of her earnest intention to engage energetically in repairing the mischief. I do not usually regard it as a satisfactory announcement if, at my first visit after an operation, I am informed that my patient is so tranquil and unmoved in every respect, as scarcely to betray the fact that a severe ordeal had been so recently endured; and, if the pulse and skin confirm this statement, the prospect of the case is far from encouraging. No doubt, owing to peculiarities in both physical and mental temperament, there are exceptions to this rule; but I am now speaking of the ordinary run of cases; and in such I do not hesitate to say that excess is more promising than deficiency of reaction. But there is a second period through which this reactive stage has to pass, and one which may naturally excite more anxiety on the part of the surgeon; when instead of subsiding, these feverish symptoms continue, with impaired general power, and nervous excitement becomes the predominant characteristic, with its attendant sleeplessness and a disturbed intellect. The tongue then becomes a valuable index of the condition we have to deal with; if moist and, though white, not coated, we may employ the necessary means to allay nervous irritation. But if a dry, glazed, or furred tongue accompany an unhealthy, decomposing wound, with an extending blush of surrounding inflammation, just reason for alarm exists, as we thus have intimation of having lost our best auxiliary in the digestive organs; food is not assimilated, and medicines, even including opium, are generally worse than useless. Stimulants alone remain to us; and it is surprising how large a quantity, as in some instances also of protracted shock, may be taken with impunity. An improved appearance of the tongue is often, I had almost said usually, the first indication of an improving condition under these anxious circumstances.

It is essential that the condition I have just described should not be confused with that of nervous delirium. The latter state usually supervenes earlier after the infliction of injury; its development is sudden, or with premonitory symptoms which might be overlooked by an inattentive observer; and during the existence of the delirium, the pulse is comparatively tranquil, and the tongue clean. It is a condition in which the too keen edge of nervous insensibility requires to be blunted by opium. The question of operating under shock has naturally engaged the attention of surgeons, and constitutes one, of the most momentous character, in which a prompt and discreet judgment must be formed. I do not hesitate to say that the diagnosis of each individual case must rest, more or less, on its own merits; but some general rules for guidance may be adopted, to supply the lack of special experience. Observation has taught me that operations of some severity may be undertaken, during shock, without seriously adding to the risk, if security against loss of blood can be ensured. The period at which nature most resents interference is when she is making the effort to establish reaction; and the influence of this second blow on the nervous centres is much the same as that in reactionary hæmorrhage: the nerve-energy in the one instance and the blood in the other, have already been partially exhausted by the first demand; and the resources of either system fail when called upon for a further effort: serious reactionary hæmorrhage and recurrent shock are equally alarming; the two combined are almost certainly fatal.

But a distinction must be made between cases in which profound shock succeeds a severe injury, and those in which a similar condition is the consequence of a slighter cause. We frequently meet with instances of both classes, in which the symptoms present no essential points of difference, and equal alarm might be excited by the one as by the other. Yet, experience teaches us that we may measure the probable duration and intractable quality of the shock by the extent and severity of the injury, especially if complicated with loss of blood; and that a speedy reaction and normal re-establishment of the nerve-functions may be expected, where the lesion is not serious. Under such circumstances it is better to wait for reaction, before any fresh shock is inflicted: for the exhaustion of nerve-force is more apparent than real; just as the loss of a small quantity of blood may, in some individuals or under certain circumstances, produce complete but transient syncope, without exhaustion. The *treatment* of shock does not come within the range of my subject: but it is not foreign to my purpose to notice the diagnostic value of stimulants, when the long continuance and intensity of the symptoms justify or demand their use. If their exhibition be unheeded, if the looked for response be not given by the heart to the whip and spur, we may judge the exhaustion to be great indeed—a condition with which we meet when the shock is the constitutional expression or warning of a fatal visceral lesion. The administration of chloroform in profound shock I look upon as inadmissible. It subserves no good purpose, for the sensitiveness to suffering is numbed or deadened; and if a sufficient quantity be given to induce complete insensibility, the risk of paralysing the respiratory act is greatly aggravated, in a state in which all the organic functions are so feebly performed, and the animal force is at so low an ebb.

In my experience, shock, *per se*, is rarely, unless immediately, fatal. I have seen many cases of shock, without special brain-injury, so profound as to suggest the presence of fatal visceral lesion: yet recovery occurs after a longer or shorter interval; and may constitute the only test by which we conclude that no such injury has been inflicted. In suddenly fatal shock, whether the hurt be received on the head or neck, or in the epigastrium, or be a consequence of general concussion of the whole frame, the arrest of the heart's beat and of respiration are indirectly due to paralysis of the brain. The pneumogastric is probably almost exclusively a centripetal nerve, conveying impressions between the important organs to which it is distributed and the brain. Thus, it communicates the sensations of hunger, thirst, and repletion from the stomach; it gives warning of the presence of carbonic acid in the lungs: and that it possesses an analogous function, in relation to the heart, we conclude from negative rather than positive evidence. Division of the vagus nerve scarcely influences the heart's beat, whereas its stimulation by galvanism retards it. The cardiac branches of the sympathetic are abundantly distributed to its muscular structure: irritation of the brain and spinal marrow modify the heart's action; and its rhythmic movements are arrested when the spinal cord is suddenly destroyed. Mental influence, again, proves the sway which is exercised by the cerebrum over the heart. From these facts I conclude that the special function of the pneumogastric, in relation to the heart, is to communicate impressions made, simultaneously or independently, upon it and upon the lungs, to the brain. Cognisance may thus be taken of the presence of unoxygenated blood within its cavities; or its sympathetic action in unison with respiration may be thus secured. Certain it is that the regulated rhythm is seriously deranged by causes, such as shock, tending to disturb the healthy relations of nerve-force in these organs. To what, then, is the oft-cited death from a blow in the epigastrium to be ascribed? It is not due, I apprehend, to any inhibitory quality attributed to the pneumogastric in relation to the heart's contraction; but rather to the indirect impression upon that organ through the violence offered to the pulmonic and gastric plexus of the vagus, and thence conveyed to the brain: the ulterior consequence being suspension of both respiration and circulation simultaneously. Whether the pneumogastric nerve is the medium of a direct controlling influence over the action of the heart in these results, I do not know. Indeed, I must admit that I cannot understand how this negative influence—for as such the inhibitory property ascribed to this nerve must be regarded—is exercised, and what it may be. Probably further investigation may throw more light on the subject.

I have thus endeavoured to bring within the limited compass of the time allowed, some of the leading features of shock and its sequelæ. The many recent interesting experiments bearing upon nerve-function, held out to me the temptation to diverge into the pleasant paths of physiology; but I have felt compelled to restrict myself to very brief allusions to these subjects;—and I may now remark, in anticipation, that I must in like manner, in the subsequent lectures, avail myself, without entering into details, of such physiological facts as recent investigations have unfolded.

The ever-recurring tendency to generalisation is specially exemplified in the development of physiology in association with physical laws. New discoveries disturb our existing convictions; but out of confusion comes, or, we may feel assured, there will come, harmony and light: for we know that Omnipotence and Truth cannot be disjoined. Yet, in dealing with an influence so complex and so subtle as Life, our most delicate instruments are coarse and subject to error. The relation of nerve-force to muscular contraction, and the inverse development of convulsive movement in relation to the supply of nervous influence;—the apparent identity of muscular force and irritability, manifested in "the readiness with which muscle contracts, being in direct proportion to the amount of force accumulated in its structure;"—the fact experimentally proved, that muscle more readily contracts in the absence of nervous influence; and also that "in the absence of volitional or other excitement, both the nervous and muscular systems can accumulate their own special forces, and that to an extent which can never become apparent under normal life conditions;" (Morris, *On Muscular Irritability*, in *Journal of Anatomy and Physiology*. 2nd series. No. 2.) the assumed inhibitory influence of nerve-force over muscle; the startling doubt which experiment seems to raise, as to the limitation of volition to the encephalic centre; probably, however, explained by the exaltation, as we descend in the scale of creation, of co-ordinating nerve-power from several and independent sources; the probable localisation of special attributes, as that of speech; these are some amongst the many physiological phenomena and problems, allied with the subject I have been considering, on which further investigation will throw more light, and will bring into more harmony as that light is imparted. In physics, the universality of wave-motion, as the connecting link between mind and matter, recommends itself by its comprehensive grandeur: and the principle involved in the correlation or conservation of physical forces—that force or energy, like matter, may be transferred or converted but not annihilated—has opened a wide field for investigation in its relation to physiology. All seems to point in one direction—to the inclusiveness of the laws and the simplicity of the instruments by which such varied, such complex results are obtained; and in this contemplation the mind is elevated by the conviction which is forced upon it, that the relative quality of magnitude is, like time, simply an accommodation to our finite intelligence: the myriads of worlds on which we gaze in the infinity of space, individually of bulk too vast to be encircled by the earth's orbit around the sun, and the microcosm of our own bodies, yea, even the animalcule which is invisible to our unaided sense, are framed by the same Omnipotence, and governed by the same Omniscience;—and that each is perfect in its own degree, and equally cared for, in the adaptation of the laws which determine its existence, and secure the fulfilment of its destiny.

NOTES ON THE TREATMENT OF CHOLERA.

By T. M. LOWNDS, M.D., Bombay Army.

It is with some diffidence that I submit the following remarks on the treatment of cholera, as the plan which I have for some years pursued is so different from that so ably advocated by Dr. George Johnson, and endorsed by so high an authority as Sir Thomas Watson; but I saw such immediate relief follow the administration of nutriment, of a kind to be described presently, in collapse, and in a very large proportion of cases the disease ran a course so different from what I had seen previously, and went on to cure, that I am disposed to submit an abstract for the consideration of those of my professional brethren in England, who, unfortunately, have now comparatively so many opportunities of treating this intractable destroyer.

In 1860, I published some remarks in the *Transactions of the Bombay Medical and Physical Society* on what I considered should be the rational treatment of cholera; and in these remarks I divided cholera into four stages: 1, preliminary diarrhœa; 2, true cholera with vomiting and purging of the characteristic rice-water evacuations; 3, collapse; and 4, reaction. I may briefly state that I considered the disease to consist, pathologically, in a blood-poison, devitalising the blood to such an extent in fatal cases, as to cause death at the lungs from the inability of the blood-corpuscles to assimilate oxygen.

For the treatment of the first stage, I then used astringents, with one or two full doses of opium, with which stimulants, of either the alcoholic or the ammoniacal class, might be advantageously combined. I considered that both opium and alcohol should be used with caution, because the disease might run on to the second stage, and we might be embarrassed by having carbonised the blood or locked up the secretions to too great an extent. Calomel I sometimes gave in this stage. In the second stage, the caution with regard to opium must be increased. Calomel should be given freely, sinapisms applied, and thirst allayed with some fluid capable of yielding oxygen to the blood; dry heat should be applied to the body and limbs. In the third stage, oxygenated drinks and light nourishment, such as Liebig's cold soup, must be given. The fourth stage is to be treated on general principles.

With respect to the treatment of the first stage, I have, since the time when my remarks were written, omitted entirely the use of astringents, finding that a draught containing fifteen or twenty minims of chloroform, with ten or fifteen minims of tincture of opium, with a drachm of spirit to render the chloroform miscible with water, was exceedingly efficacious. During several years, when cholera was more or less prevalent, I have treated a large number of patients by this method, and can only call to mind one case where the disease progressed to collapse, and two cases where diarrhœa went on to rice-water purging and vomiting.* It may be objected to this, that these cases were not choleraic purging; but the vast majority of them occurred during the time when cholera was present, and the symptoms supervened between midnight and five in the morning, with crampy pains in the stomach and bowels. These cases in India are specially suspicious, the patient going to bed quite well, and being awakened at the time named. During the prevalence of severe cholera, the same result was observed. The orders issued were, that every person suffering from diarrhœa was at once to come to hospital for treatment; and this medicine was administered, with the general result that but few required a second dose.

The following are the notes of two cases of cholera, treated as I have stated.

Case i.—Kublec, sepoy, aged about 25, was admitted May 22nd, 1866, at 10 A.M., complaining that he had much pain in the stomach, and saying that he had been purged three or four times during the previous evening, and that vomiting of white fluid had come on in the night. Pulse small and quick; anxious expression of face. He was ordered to have immediately fifteen minims of chloroform, ten minims of tincture of opium, and a drachm of spirit, in an ounce of water; and to have a mustard-poultice applied. I was then called by the native doctor, and found that for the time the vomiting had abated; the pulse was very small and quick. He was ordered to have five grains of calomel immediately; and the following drink every hour, or more frequently, in ounce doses.

℞ Potass. chlorat. ʒj; acidi hydrochlorici fort. ♏viij; acidi nitrici dilut. ʒiss; aquæ ℥xxiv. M.

During the next four or five hours, he was purged two or three times, and vomited many times, all rice-water evacuations. I saw him again at 3.30 P.M. He was collapsed; the eyes were sunken; the skin cold, but no sweating; the pulse barely perceptible, and that only at intervals. The voice was choleraic. He was ordered to repeat the calomel and chloroform, without the tincture of opium. At 4 P.M., I gave half an ounce of arrack in water, which was immediately vomited. He was ordered to have an ounce of Liebig's cold soup every half hour; and to continue the chlorate of potass drink. No raw meat could be procured, but a quantity of the soup was made from a freshly killed fowl, and he had the first dose about 5 P.M. At 7, I saw him again. No vomiting nor purging; pulse markedly improved; skin warmer.

May 23rd, 8 A.M. He had vomited twice in the night, and once had been purged, both rice-water evacuations. Pulse better; skin warmer. He had passed a little urine. The soup and chlorate of potass drink were continued. In the evening, he had vomited only once; the pulse was improving. The treatment was continued.

May 24th. He was much the same. The medicines were continued. In the evening, there was reaction with a full pulse; the skin was hotter than natural. Sago and light food were allowed; and he was ordered to continue the chlorate of potass drink.

Occasional vomiting supervened up to the 27th, when he appeared much better. The secretions had gradually returned.

May 28th. He wished to be discharged; and on the 29th was discharged, well and strong.

Case ii.—Rajica, Bheel sepoy, was admitted on May 22nd, at 8 P.M., from the same guard as the previous patient, and with the same symptoms. Chloroform mixture and calomel were given, and a mustard-poultice applied. Liebig's soup was ordered to be given frequently.

May 23rd. The pulse was just perceptible. There was no sweating. The cholera appearance was fully developed. The urine was quite suppressed. He vomited still, and had been purged twice, with rice-water evacuation. He was ordered to continue the soup and the chlorate of potass drink.

May 24th. The pulse was decidedly improved. The skin was naturally warm. He still vomited three or four times in twelve hours. No urine was passed. The treatment was continued. In the evening, hiccough had commenced, and was urgent. Pulse good. No urine.

May 25th. There was still much hiccough. He had passed no urine; and was still purged, but not much.

May 26th. He was still slightly purged. He was ordered to continue the soup and the chlorate of potass drink; and to have five grains of calomel, and a sinapism applied. He passed urine at 12 to-day for the first time. In the evening, the pulse was good; the skin natural. He had hiccough.

May 27th. He slept well; had been purged thrice in the night. The first was a natural bilious stool; the second and third were rice-water. He was ordered to continue the chlorate of potass drink; and to have sago-diet, etc.

May 28th. He had still hiccough; but seemed well otherwise.

May 29th. The hiccough stopped to-day.

June 2nd. He was discharged well.

A woman, the wife of one of the sepoys of the same guard, was admitted on May 23rd. She died two and a half hours afterwards, having been treated in the same way.

Another case was admitted on May 24th, and followed the same course as the first two detailed. The man was from 35 to 40 years of age, and much weaker. Yet the course was precisely that of the first two cases detailed, except that urine was not passed for three and a half days, and there was no hiccough.

At the same time, I treated a considerable number of cases of choleraic diarrhœa, and two or three cases where the disease had advanced so much as to be fairly designated cholera, as rice-water purging and vomiting were present—all did well.

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* All did well.

This (1866) was the third year in which I had thus, or nearly thus, treated cholera, and in each year the same results were observed; viz., 1, the heat returned to the body gradually; 2, the pulse improved very gradually; 3, the sunken features regained their fulness long before reaction (*i.e.*, a return of natural secretion and excretion) fairly ensued; 4, cramps, when present, speedily diminished. In November 1866, when the camp to which I was attached was at Agra, cholera broke out, and the first six cases were almost immediately fatal. The first two cases were collapsed almost hopelessly when first seen, and four others broke out very speedily among different parts of the establishment. An immediate move to an open plain, five miles distant, was requisite, and consequent on this no soup was administered until late next day. One other case died, and his sickness was not made known until he was pulselessly collapsed, having been ill more than twenty-four hours. In this short outbreak, fifty per cent. of the cases of cholera died; but treatment, in six out of fourteen, was much interfered with owing to the necessity for moving; and, as I said, the soup could not be made until next day. The seventh fatal case did not come under treatment until upwards of twenty-four hours after seizure.

Two of the cases were exceedingly severe, and pulled through after three and three and a half days suppression of urine. In one of these cases, the red cold soup of Liebig passed through the intestine unchanged. When this was mentioned to me, I found, on inquiring, that the quantities of soup given to this patient, whose age was 12, were the same as to an adult. I reduced the quantity, and the redness at once ceased. I attributed this redness to the amount of soup being too large to be absorbed. The second severe case suffered from sponginess of the gums, and frothy discharge of blood from the larynx, for many days after all symptoms of cholera had vanished.

I regret that I have not the data for showing, in a tabular form, the results by this method of treatment; but, out of twenty-five cases of cholera, sixteen recoveries took place. This includes every case admitted, and the seven cases referred to at Agra, when circumstances prevented anything like a fair trial of the remedy.

Statistics I cannot rely on for showing the benefit of the treatment; for these are not at hand, and cholera has been, happily, but an infrequent visitor at Mount Aboo, where I was stationed for ten years. But the course of the disease in the two cases that I have narrated, and which was precisely similar in the remainder, proved to me that, in those cases, Liebig's cold soup (*vide* Ranking's *Abstract*, vol. xxi, page 357) had very marked power in keeping up a feeble circulation and strengthening the system, so as to enable it to throw off the poison by the natural channels, and thus carry the patient through the disease.

The earliest signs of improvement, in my experience, have been increased heat of skin and an improvement in the pulse; no sweating took place in any case, This marked amelioration in the condition of patients preceded any return of secretion by as much as three days or three days and a half. In one case, a bilious stool on the fifth night of the disease was followed by two others of rice-water.

I am sure that the soup was absorbed, as only in one case have I seen, in the matter ejected by stool, any resemblance to it; and it has not been returned unchanged by vomiting to my knowledge. I have never known it cause vomiting. In one case, when considerably improved, the patient said he disliked the soup, and craved for arrowroot. It was given, but immediately produced vomiting. He then took the soup without any difficulty.

Sometimes the state of complete reaction comes on almost insensibly; the return of the urine coinciding with bilious secretion, without any febrile disturbance. In the few cases (twenty-five) I have treated on this plan, I have not had any sequela to call for anxiety or notice.

The soup was first given in 1860, in consultation with Dr. Ogilvy, then of Her Majesty's 33rd Regiment, whose remark as to its probable action was to the effect it seemed to supply to the blood what was removed by the purging. This, after careful consideration, I still think is the correct explanation. I would not wish to enter into any discussion in these short notes as to the pathology of collapse; but it will be seen I cannot altogether agree with Dr. G. Johnson's argument, able though it be. I think that the cases of sudden collapse, with little vomiting and little or no purging, admit of a different interpretation to what he has assigned.

The soup was made by placing eight or ten ounces of finely minced raw meat in one pint of cold water, to which eight drops of strong muriatic acid had been added, stirring with a bit of stick occasionally for ten minutes, and then straining. The soup will only keep good a few hours; but if a supply of lean meat be kept ready minced, it can be made almost as wanted. Salt should always be added.

Hitherto, I have only given the soup when collapse was established; now I should be inclined to give it in any case where diarrhœa is accompanied with a failing pulse, and most assuredly when the characteristic discharges of cholera have come on. In cholera infantum, or urgent diarrhœa, I have not had much experience; but the soup apparently saved the life of a child of my own in the first named disease. The child was a year old, very robust and strong; and, in twenty hours after the first attack, the eyes were sunken. For three weeks, while it lasted, the soup was the only thing that could be retained, though nourishment of every available kind was tried, yet each seemed to cause vomiting. At the end of three weeks, the child was emaciated to a degree, had bed-sores, and much irritation about the anus; yet, under change of air, he was gradually able to take other nourishment; for, one day, he took raw meat minced, and then turned from that and the soup with loathing. But, with pepsine, he gradually digested other food, and did well. During all the time, there were no rice-water evacuations.

I believe that at first, especially in collapse, the soup should be administered in small, but frequently repeated, doses. I generally give an ounce or two every hour, or sometimes every half hour, alternating it with the chlorate of potass drink. Water, cold or iced, in small quantities.

I publish these notes at this time, as diarrhœa is now so prevalent in many large towns, and some may perhaps deem Liebig's soup worthy of a trial. I have given it to children three months old, generally omitting the muriatic acid. Has Dr. Richardson's solution of the peroxide of hydrogen been tried as a drink in cholera?

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

HEAD-AND-HAND PRESENTATION.

By W. ELLIS CLENDINNEN, Esq., Cheswardine.

MRS. M. was in labour with her sixth child on April 27th, 1868. On my arrival, I found the head presenting; the pains regular; the os partially dilated. On examination one hour subsequently, I discovered that the fingers of the right hand had come down with the head. I immediately sent for my friend Mr. Morris, who had attended this patient in her last labour, which was a similar case, fifteen months previously. We delivered by turning. The child is alive and thriving at this date. The mother made a rapid recovery.

This was the second case of head-and-hand presentation within our own knowledge; and we have good grounds for supposing it to be the fourth. The patient informed us that the two previous children had been turned; whether they were hand presentations, or hand and head, she was, of course, unable to say. There are three children now living. The first two labours were natural. The eldest child, a girl, is idiotic, which the mother attributes to a fright she received during pregnancy. The second, also a girl, is paraplegic. It is remarkable, as Dr. Masters says, that two such cases should occur in a short space of time to one practitioner; but it is more remarkable, that four cases of head-and-hand presentation, or at least two cases of head-and-hand, and two of hand presentation, should occur in the same woman, following two cases of natural labour.

EXTRAUTERINE PREGNANCY.

By HENRY EWEN, Esq., Long Sutton.

THE following is the sequel of the case of extrauterine pregnancy related at page 7 of the BRITISH MEDICAL JOURNAL for July 4th, 1868.

Mrs. P. continued pretty well up to the end of June 1868, when she complained of frequent sickness, loss of appetite, and great weakness. In the early part of July, she became partially paralysed on the left side, with impaired mental faculties, headache, and increasing exhaustion, followed by the ordinary symptoms of uræmic coma. The urine was loaded with albumen. The extrauterine tumour did not occasion any uneasiness, and had considerably diminished in size, was much harder, of irregular globular conformation, and occupied the right iliac fossa. She died July 16th. A cadaveric inspection could not be made, in consequence of the insuperable objections of her mother and husband.

ON

THE ELIMINATION AND ASSIMILATION OF MORBID POISONS.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Physician to King's College Hospital; Professor of Medicine in King's College; etc.

THE distinguished author of the Address in Medicine recently delivered at Oxford, argues that recovery and subsequent immunity from such diseases as small-pox "are produced by a process of impregnation and assimilation, and not, as was early believed, and is still by some maintained, of elimination." Dr. Gull goes on to say that "the old theory of depuration, though true of gross chemical poisons, as lead, or mercury, or arsenic, appears to have no application to those operations which take place in the body in contagious diseases, as the effect of organic poisons." The question which is thus raised is one of considerable scientific interest and practical importance. I have been at some pains to arrive at Dr. Gull's meaning; and, so far as I can understand him, I find it impossible to reconcile his doctrine with some of the well-known facts of contagious diseases. Every pathologist will admit that in contagious diseases there is "impregnation" of the system by a poison; but what is meant by "assimilation"? Surely there is an entire absence of proof that morbid poisons are assimilated into the substance of the body as food is assimilated; and yet this appears to be the sense in which Dr. Gull employs the term assimilation with reference to these poisons. Without doubt, there is a process of assimilation in contagious diseases; but, so far from the organism assimilating the morbid poison, the exact converse occurs: the morbid poison assimilates the fluids and tissues of the body, and the result is a millionfold multiplication of the original poison-germ. What, then, becomes of these poisonous materials? That they are ever appropriated to the use of the body by a process of assimilation, is not only unproved, but in a high degree improbable. That they are partly decomposed in the system, and then ejected by various channels, is likely; but that, in such a disease as small-pox, they are abundantly thrown off into the surrounding air, is absolutely certain. The whole doctrine of infection is based upon the proposition that poisonous emanations from the sick may enter the bodies of the healthy, and there reproduce the morbid processes to which they owe their own existence. Not only does a morbid poison assimilate the materials of the living body, but an individual sick of an infectious disease makes others as sick as himself; he assimilates his friends and attendants. Our ignorance of the chemistry of morbid poisons does not render them the less veritable "chemical poisons". The every-day practice of disinfection in such diseases as cholera and scarlatina accords with the indisputable fact that a material virus is thrown off from the system. If the doctrine of the natural elimination of morbid poisons is to be rejected, the doctrine of infection and the practice of disinfection must also be given up, as unmeaning and useless, these corollaries being necessary correlatives of the other.

The fact that the organism is not restored to its former condition after such a disease as small-pox, so that, as a rule, it is insusceptible of a recurrence of the same disease, is rather adverse to than in favour of this new doctrine of assimilation. The body is *unlike* what it was before; it has been assimilated; and the non-recurrence of such diseases is more in accordance with the hypothesis of Mr. Simon and Mr. Paget, that certain ingredients of the body are destroyed by each specific morbid poison, and that these ingredients not being reproduced, that particular poison finds henceforth no materials upon which its morbific agency can work. Not only the skin, but the entire organism, is, as it were, permanently *scarred* by the operation of the small-pox poison.

I entirely agree with Dr. Gull, that "the object of medicine must rather be to limit the violence of attendant symptoms, than, with our present knowledge of therapeutics, to aim at arresting or neutralising their specific processes." It is questionable whether vaccination can with strict propriety be called a "remedy" for small-pox. I should consider it rather as a means of prevention, or of exciting a mild and modified form of the disease. Dr. Gull goes on to say: "Yet, notwithstanding this teaching, pathology still persists in looking in another direction; and therapeutics are governed by the idea that disease is an entity which must be combated and cast out." Now here I venture to suggest, that the idea of a disease is confounded with the idea of a morbific cause. My idea of small-pox is that of an individual suffering from that disease; and, if I found such a patient in one of my wards, my belief in the doctrine of the elimination of morbid poisons would induce me to "cast him out" of the ward before he had infected the other inmates. Then, in treating the sufferer from small-pox, I should act upon the idea that the small-pox virus is as veritable an "entity" as the ovum of a tape-worm; and, believing that the natural process of cure consists in casting out the poison and its products, I should endeavour to favour that process by a free current of fresh air to carry away the poisonous exhalations as rapidly as they are formed, and thus to prevent their re-entrance into the system either through the air-passages or by other channels. Again, in treating choleraic disease, theory suggests, and practical experience confirms, the theory that the fœtid morbid secretions should not be retained within the alimentary canal, but rather permitted, nay, even assisted, to escape. One of the strongest theoretical arguments against the use of repressive means in the treatment of the contagious diseases is derived from the fact that these morbid poisons, unlike inorganic poisons, are rapidly self-multiplying; so that their forcible retention within the body increases their destructive agency. The mischievous consequences of driving in the rash of scarlatina are too well known to require even a passing notice. I lately saw rapid death follow the repression of the variolous eruption by a prolonged application of a cold wet sheet to the surface. In how many instances the analogous practice of arresting choleraic discharges by a large dose of opium has been attended with equally fatal results, it is painful to contemplate.

To sum up, then; the doctrine of the elimination of morbid poisons is based upon three classes of facts.

1. There are thrown off from the bodies of those who are suffering from infectious diseases poisonous materials, which have the power of imparting the same disease to others.
2. The processes by which these poisonous materials are thrown off from the bodies of the sick, are essential for the recovery of health, and an arrest of those processes is often followed by serious, and even fatal, results. In other words, while the poison escaping is destructive to others, the poison retained is destructive to the patient himself.
3. The most successful methods of treatment are such as rather assist than hinder those natural eliminative processes, which, being constant, are obviously an essential part of the cure. So that, to repeat the words of Dr. Gull, "the object of medicine should rather be to limit the violence of attendant symptoms than to aim at arresting or neutralising their specific processes."

ON SUN-FEVER:

OR DISTURBANCE OF THE CEREBRO-SPINAL FUNCTIONS BY EXCESSIVE HEAT.

By WILLIAM STRANGE, M.D.,
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EXCEPTIONAL seasons are frequently accompanied by exceptional pathological phenomena. One year we have cholera from some occult or unexplained peculiarity of season, coupled with a *virus morbi;* another, as the present, sun-stroke, or *sun-fever*, from the more simple cause of excessive solar heat and light. But the morbid results, interesting as they are at the moment, are soon forgotten in the changes of season and lapse of time; and therefore it is well that we should attempt to fix such phenomena as may be interesting in a practical point of view whilst they are still fresh in our memories. For this reason I make no apology for offering some notes from my own experience, supplementary in some sense in kind, as well as in number, to those of Dr. Bullar in the JOURNAL for August 22nd.

All who have watched the morbid effects of the late excessive heat will have perceived that those effects vary, from such slight disturbance of the functions of the brain or heart as often results from mere muscular fatigue, through all stages of severity up to those terrible cases of heat-apoplexy which we find recorded in the works of our Indian surgeons.

The following cases, selected from such as have come under my own notice this season, are intended to show that considerable variety may be looked for amongst cases of what may be called the minor sort of sun-stroke. They will be found to differ materially from those related by Dr. Bullar; and, of course, still more from the severe disease described as heat-apnœa by Dr. George Johnson in the JOURNAL for August 1st. It is from neglecting to estimate sufficiently this variation in the phenomena resulting from insolation, that so many errors are made in the diagnosis of sun-stroke.

Amid this variety of morbid results arising from the same cause, two features appear to stand out so prominently from the rest, as to entitle them to be looked upon almost as pathognomonic of a disease which may without great impropriety, I think, be denominated *sun-fever.* These features are both of a febrile nature, being a disturbance, first, of the cerebro-spinal, and, secondly, of the circulating function. All the derangements of other functions which accompany these appear to be dependent upon, or, at least, consecutive to, the principal abnormities; and vary, as usual, in accordance with the idiosyncracy of the individual. Thus, in one case, we find the heart's action depressed, with feeble pulse, cold, pallid skin, chills, perhaps rigors, giddiness, sickness, or nausea. To this condition there sometimes succeeds fever, manifested by pain in the head, hurried respiration, hot dry skin, sleeplessness, delirium, and great muscular debility. These latter symptoms are often interrupted, however, by semi-syncope, with great anxiety, and a feeling of impending death. The next case may be ushered in by excessive pain in the vertex and back of the neck, hurried respiration, bounding pulse, hot skin, and excessive thirst, to be followed by wild delirium, dry tongue, and all the phenomena of a sharp attack of fever. In this case, the debility, muscular and general, *succeeds*, whilst in the former it *precedes* the reactionary fever.

CASE I.—A stonemason, a strong muscular man, working at a short distance from the hospital one hot day early in the season, was brought in in a state of partial collapse, the result of sudden sun-stroke whilst at work. He stated that he had suffered from the heat for the previous two or three days. Having recovered from the collapsed condition, he exhibited, at the visit next day, the following state: considerable dulness of apprehension, loss of memory, hesitation of speech, with defective sensation and motion over the whole of the body. The skin was cool and had been so all along; the pulse slow and small; there were sleeplessness and anorexia, whilst the tongue was clean, with absence of nausea. The cold shower-bath was prescribed, with mild aperients, nourishing diet, and afterwards quinine. Under this plan he slowly improved, but was unable to leave the hospital on account of the defective sensory and motor power of the limbs. Faradisation slowly restored the lost power of the nerves, and after nearly three months he left the hospital pretty well.

Here the febrile symptoms were never developed at all. The nervous centres appear to have received too great a shock and interruption to their nutrition to be able to react after the manner of fever.

CASE II.—On one of the hottest days of July last I saw, with a young practitioner in Herefordshire, Mr. O., a slim youth of 18, the son of a farmer. Having taken the place of one of the labourers for an hour or two on the top of a hay-stack in the broiling sun, he was brought down in a state bordering on collapse. They gave him a quantity of cold water and cider to drink, to the former of which the parents attributed their son's subsequent illness. In the evening, after vomiting, smart fever came on; some rigors, preceded by pain in the head and hot skin. The next day the vomiting continued; the thirst was excessive; he had pain down the spine and in all the muscles, and at night delirium. The pulse varied from 98 to 120, or more. The disease was now considered to be gastric fever, the results of the administration of the cold water during the state of collapse. I saw him on the fifth day. The pulse was then 110, somewhat irregular in strength, and there was an occasional tendency to syncope, which led to my being called in. The delirium had been exceedingly violent during the night. Notwithstanding this I found the head cool, the pupils unaffected, and the patient capable of describing his symptoms. The skin was dry, but not preternaturally hot. I ordered ice to be kept to the head, in a flannel bag to mitigate its severity, ice to be slowly swallowed, concentrated essence of beef with half-an-ounce of brandy to be given every three hours, and the surface to be sponged with tepid water. This youth became rapidly convalescent, and the next week was well, although very weak.

In this case I looked upon the fever, with its delirium, etc., as mere phantoms; a mockery of that displayed by inflammation of the meninges; and therefore did not hesitate to stimulate freely, and to give a decidedly favourable prognosis.

CASE III.—A medical friend, of middle age, and somewhat delicate constitution, never able to bear much muscular exertion during great heat, had been much distressed by the excessive heat of the latter part of July, the symptoms being burning heat of body, scarcely relieved by repeated cold sponging, restlessness, unsound sleep, and inability to read long together, with a peculiar unstable feeling in the brain which rendered much mental exertion distressing.

The 23rd July was a cold, bleak day, interpolated between excessively hot ones before and after it. On the evening of this day he felt inclined to shiver, and the skin ceased to act. On the following day, he imprudently took a Turkish bath with the intention of restoring the cutaneous secretion, but without any effect save that of exhausting the heart and increasing the illness. Smart fever came on in the evening, without previous rigors; the respiration being exceedingly hurried and laboured, and the skin burning hot. There were intense headache, great thirst, and frequent inclination to micturate. The rapidity of respiration bore no normal relation to that of the pulse, it being 48 or 50; whilst the pulse, habitually about 60, was increased to 75. This proved to the patient that he was suffering from congestion of the lungs. Saline aperients were administered, ice was constantly applied to the head, and small pieces of it were swallowed with acidulated drinks in large quantity. The appetite did not fail, and therefore food was administered frequently; broth, pudding, etc., with small quantities of brandy about three or four times in the twenty-four hours. The severe febrile symptoms, violent pain in the head, etc., lasted for three days, when the skin began to act gently for the first time, with immediate relief to the brain and lungs. During this time the irritation of the neck of the bladder brought on an attack of most violent spasmodic pain there, and along the urethra, every attempt at micturition causing the most excruciating suffering. As the patient had suffered from inflammation of the neck of the bladder and vesical tenesmus on previous occasions, he was unwilling to take any stimulants, as they invariably caused, even in the smallest quantity, great aggravation of the suffering; but, on this occasion, to his great surprise, he found that, in place of instant aggravation of the tenesmus, as formerly, there was nothing of the kind now, but rather a soothing effect on the parts. Much muscular debility succeeded the subsidence of the febrile symptoms, which were finally dissipated under the inspiriting influence of the Oxford meeting.

In this case the patient was quite unaware at first how much his symptoms depended upon previous exhaustion of the nervous system and of the heart by the previous hot weather, or he would not have further weakened the latter organ by such a demand upon it as the Turkish bath was sure to make. The vesical symptoms were peculiar. As no cause was known for their appearance at this time, they were at first attributed to the acidulous drinks which were partaken of rather freely; whilst, doubtless, the parts affected merely participated in the same venous congestion which gave rise to the head-symptoms, and to the hurried and laboured respiration.

CASE IV.—A farmer, aged 48, of muscular and energetic habit, called upon me last week to complain, or rather his wife complained for him, of weariness, pain in back of head or down the spine, inability to sleep after two in the morning, and great and ceaseless anxiety. Pulse quiet; skin rather hot. He had felt the heat, he said, a good deal, having been exposed to it every day, and all day long. His appetite failed, but there was no thirst. The vessels on the cheeks showed the red blood in them; and altogether the man did not appear to be very ill, although he was not the man, he said, to go to a doctor "for nothing." For the sleeplessness I ordered fifteen grains of bromide of potassium, as he declined to take any narcotic; and for the loss of appetite hydrochloric and phosphoric acids, with nux vomica. He was to come again in a week. On the *third* day he called to say that the first dose of the *salt* (he had it in the crystal to show him there was no opium) had acted like a charm; he slept well all night, and was now "as good as well." One might suppose that the salt had acted upon the imagination alone here, had it not been that I told him not to expect sleep from it, but only a soothing effect. If not a narcotic, certainly this curious salt does prove an excellent hypnotic in cases of restlessness and anxiety. I have given it every night for six months with the best effects in this respect, and without its being followed by unpleasant symptoms of any kind.

The moral to be drawn from such cases as the above, I would suggest, is, that they ought to be treated chiefly on their merits, only bearing in mind that the cause, in all cases, is a depressing one; and that, whatever may be the intercurrent or consecutive symptoms, what we have to look to is the debilitated condition of the heart, and the consequent congested state of the lungs, caused by the more or less sudden withdrawal of nutrition from the nervous centres, the over-heated blood proving, seemingly, antagonistic to normal nutritive action.

It is only by experience that we shall learn the real value of great cold, as ice, applied to the head, or to the stomach by swallowing, in these cases. *A priori*, viewing the collapsed condition in cases of sunstroke, we should be led to fear the effects of sudden cold applied to the sources of life. But, if our Indian brethren find it tolerated in the severe cases with which they are familiar, unquestionably we need not be afraid to use it in such milder cases as are met with in this climate. Certainly, the medical man whose case is related above (Case III) found the greatest relief from ice applied to the head for three days together (with the proper caution of placing flannel between it and the scalp), and using it largely with acidulated drinks. As regards the pathology of these cases, I cannot think that it tallies with that of heat-syncope, or "heat-apnœa," which, by the way, is only a symptom, although the severe cases referred to by Dr. G. Johnson may be of that character. I believe that it is the nervous centres whose function of generating normal nerve-force is interfered with; and, according as the blow is most felt by the cerebro-spinal centres, or by the great ganglia of the sympathetic, will be the direction in which the symptoms may be expected to develope themselves.

ON SOME POINTS CONNECTED WITH THE TREATMENT AND PATHOLOGY OF PYÆMIA.

By C. S. JEAFFRESON, Esq.,
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The occurrence in our wards of two well-marked cases of pyæmia—an extremely rare event—induces me to bring them before the profession, more especially because they illustrate some important facts in connexion with the treatment and the pathology of that affection. Both cases were under the care of Mr. Gant.

Case I.—J. C., a young man aged 19, was admitted on April 15th. A profusely discharging sinus existed on the front of the shoulder-joint, which was extremely stiff, though not ankylosed. Posteriorly was a painful abscess under the deltoid. The disease began eighteen months previously, after a blow. The sinus had existed twelve months. He was enjoined rest, with tonics; and, on the following day (April 18th), the abscess was opened by a valvular incision, and discharged a large quantity of fairly healthy pus. Next day, he had severe rigors, followed by heat, perspiration, oppression at the præcordium; pulse 140, and breathing 30; a dry brown tongue, vomiting, and other symptoms of severe blood-poisoning. He was at once given one drachm of bicarbonate of potash, in combination with a little nitrate of potash and solution of acetate of ammonia every six hours; and fair quantities of stimulants. He passed a restless night; and the following day his countenance was dusky, almost livid. He complained of pain in the left axilla and the right hypochondrium. The abdomen was full and tympanitic, with great tenderness and increased area of dulness in the hepatic region. Both lungs were somewhat dull posteriorly, and moist bronchial *râles* were audible generally. There was a little mucous expectoration tinged with blood. At night, there was slight delirium, with subsultus tendinum. This occurred for several nights. It seldom, however, lasted more than a few hours; and in the morning there generally were slight symptoms of improvement.

In this state he continued up to the 25th of April, when the tongue began to clean, and the symptoms of pulmonary congestion to pass away. The pain and tenderness in the hepatic region continued, however, till the 28th, from which date he made a rapid convalescence. He was discharged on May 8th.

Many persons would, perhaps, feel inclined to doubt this case being one of pyæmia in its most general sense, from the favourable nature of its result. He was throughout kept well under the influence of alkalies, his excretions being fully alkaline; and with this was combined a full allowance of stimulants and support.

This method of treating cases of septic infection has been ably advocated by Mr. Savory. Whether it acts by neutralising or modifying the poison, or whether, by maintaining the blood in a fluid condition, it tends to prevent that first step of coagulation which, in its secondary effects, plays such an important part in the history of embolism and metastatic abscesses, is a matter of speculation. Of this there can be no doubt: that the alkalies, being readily dissolved, are rapidly absorbed into the blood, upon which they exert a powerful influence, indirectly stimulating the excretions. This action may be summed up under three heads: 1. Direct antagonism of the poison; 2. Protection against coagulation; 3. Promotion of secretion and excretion. Doubtless the stimulants also play an important part in keeping up the circulation; and thus we may say that the indications to fulfil are, to keep the blood fluid, and to keep it circulating.

The following case, terminating differently, occurred on the same day as the other, and afforded an opportunity of comparing the symptoms.

Case II.—W. W., aged 54, was admitted on April 15th, with three of the outer fingers of the right hand gangrenous, in consequence of a severe contusion. The accident had occurred ten days previously, and already a well-marked line of demarcation was visible. On the 17th, he was seized with violent rigors, followed by sweats, præcordial oppression, and other symptoms precisely resembling the first case, but a little less urgent. The same plan of treatment was employed, and for some days he appeared to be doing extremely well. On April 25th, however, his abdomen became exceedingly tense and tympanitic, resembling in contour a severe case of ascites. In spite of stimulant enemata and the occasional removal of the air by means of an O'Beirne's tube, the symptoms became such a source of distress and annoyance as to materially accelerate his death, which took place upon April 28th.

A *post mortem* examination was made twenty-four hours after death. The lungs were healthy, but rather anæmic anteriorly, with slight hypostatic congestion posteriorly. The heart, of normal size and consistence, was empty and contracted on the left side; but the right was relaxed, and contained a firm fibrinous clot, intimately mixed up with the chordæ tendineæ and the columnæ carneæ on the surface of the ventricle. It extended upwards into the pulmonary artery; and, at the junction of two large primary branches on the right side, it became increased in size, assuming a bulbous form, and effectually blocking up both branches. A section of it at this spot showed the thickening to be due to a plug of fibrine, evidently an embolus, the centre of which was softened, and of a yellowish colour. Beyond this spot, the clot was continued into the most minute branches of the pulmonary artery. I cannot doubt that, from this centre, the coagulation had gradually spread in both directions. The kidneys were healthy; the spleen was large and soft, and its capsule somewhat thickened. The intestines, especially the colon, were enormously distended with flatus; and all their coats seemed stretched and attenuated. No ulcerations could be discovered in the gastro-intestinal mucous membrane. The liver, in shape and size, was normal; but here and there upon its surface slight undulations were visible, denoting the existence of abscesses. On opening the inferior vena cava where the hepatic veins open into it, I found that it contained a quantity of healthy-looking pus, apparently issuing from one of the larger hepatic veins; and projecting from and closing the orifice of another was a softish clot, which, on removal, allowed pus to escape. A director was passed down the first vein, and its course was laid open. It contained a body resembling an organised clot, the centre of which was pervious; it lay free in the centre of the vessel until reaching a spot where the vessel divided dichotomously, when it could be traced down each branch, being intimately connected with their walls; and finally both branches terminated by opening directly into the cavity of an abscess. Thus there was an open and continuous channel between the interior of two abscesses and the general circulation in the vena cava inferior. The walls of the other abscesses, of which there were seven or eight, were very irregular and indistinct, giving the idea of a breaking up of the hepatic tissue; this was most marked on the sides of the abscesses, and gave them a honeycombed appearance. Here and there, behind the trabeculæ of this network, a small aperture might be discovered, through which a fine probe passed directly into a small branch of an hepatic vein.

Few will be disposed to regard this communication of the hepatic veins with the cavities of these abscesses as accidental. Putting aside the question of embolism, I feel inclined to look for its solution in some subtle change in the blood distributed to the liver, producing coagulation in the ultimate branches of the hepatic veins (intralobular), which gradually extended to the larger branches; the suppuration which subsequently occurred as a result of that coagulation making a way for itself through the softened centre of the clot. Be this as it may, we cannot but observe in these facts one more shoal in the sea of difficulties by which these cases are surrounded. In truth, a new source of infection arises, which converts a case of septicæmia into a case of genuine pyæmia, thereby materially increasing the risk of a fatal result. Thus, in this case, apart from the presence of pus in the vena cava, there can be no doubt that the embolus formed in the pulmonary artery had originally projected from the orifice of the hepatic vein; and that, finally, broken off by the current of the circulation, it had opened that direct conduit between it and the abscess which I have described. This view is corroborated by the discovery of one such embolus *in situ* projecting from the orifice of the vein, ready to be carried off at any moment, and which, when removed by myself, immediately liberated a stream of pus.

ABSTRACT OF CASES OF DELIRIUM TREMENS AND EBRIOSITAS TREATED BY DIGITALIS.

By G. E. GASCOIGNE, Esq.,
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Case I. *Delirium Tremens.*—Gunner J. Wilkinson, 12th Battery, Royal Artillery, aged 32; service eight years. August 2nd, 1866. At 9 A.M. he attempted to commit suicide by shooting himself in the head, but failed. He had been drinking hard for some time, and had not slept for five days or nights. He was very wild indeed; he said that whenever he put his hands out of bed, numbers of black dogs came and licked them. There were numerous other delusions. He required two men to prevent his injuring himself. Pulse 80, very weak. He was so shaky that he was unable to hold a glass up to his mouth without assistance. He was ordered to have as much beef-tea as he could drink.—At 11 A.M. he had a draught of two drachms of tincture of digitalis with an ounce of water.—At 1 P.M. he appeared quieter. The digitalis draught was repeated.—5.30 P.M. He had slept for half an hour, and felt better. The hand was now nearly steady when lifting the cup to his lips. He said the animals were less troublesome. He had drank since the morning two pints of beef-tea, and was ordered to have as much as he could take. The draught was repeated.—7.30 P.M. Pulse 90, firm; perspiration moderately profuse. He felt no ill effects from the medicine. He had taken another pint of beef-tea. The digitalis was ordered to be repeated.—11 P.M. He said that he felt rather giddy for a short time after taking the last dose. Perspiration more profuse; pulse 84, firm. The hands were now quite steady; he talked in a more quiet and rational way, but said that the delusions were worse, for the dogs had changed to lions and tigers. His other fancies had left him. Three drachms of tincture of digitalis were ordered. He was aware that what he saw were illusions.—August 3, 5 A.M. He had slept for an hour and a half from 12 to 1.30. He said that when he awoke he did not see any animals. He had had no delusions since taking the last dose. He only felt a little nervous; pulse 82, full and even; moderate perspiration; pupils natural. The digitalis draught was repeated.—9 A.M. He said he was quite well; he felt comfortable, and inclined to sleep. Pupils triflingly dilated; pulse 84, soft, but of full normal power; skin moist. The bowels had been open three times in the last twenty-four hours. From this time the man was well, had no return of the symptoms, and required no more digitalis. The quantity taken was fourteen drachms of the tincture in eighteen hours.

CASE II. *Delirium Tremens.*—Gunner James McNeer, 9th Battery, Royal Artillery, aged 37; service thirteen years and seven months. He was admitted on June 30, 1867. He was an old Bengal Artillery man, and had drank a great deal in his time.—1 P.M. He admitted suffering from a severe attack. He was very violent, and required the utmost strength of two men to hold him in bed. He did not know any one, and fancied that he was being devoured by white ants (one who has been in India can appreciate this horrible fancy). Pulse very full and hard; skin dry; aspect of face very wild. He was ordered two drachms of tincture of digitalis in an ounce of water.—3 P.M. I found him asleep; he had been so about ten minutes. He said before going to sleep that he would have a nap, and then go for a stroll. The mind was calmer. He continued sound asleep while I saw him. The skin was covered with warm perspiration; pulse full and bounding, 95. He was ordered to have the digitalis draught immediately on waking, and some beef-tea. At 3.30 P.M. he awoke, and took the medicine and beef-tea.—6 P.M. He had not been violent since last sleeping at 3 P.M., but dozed most of the time. He was now awake; he looked wildly about him, but did not speak or try to get out of bed. The skin was covered with warm perspiration; pulse very full, 100. He was ordered to repeat the digitalis, and to have a pint of beef-tea with toast, and another if he could drink it.—10 P.M. He was quite rational, but felt nervous. The hands were steady; pulse very hard and full, 100. He said that his eyes ached; the pupils were rather contracted. He was ordered to take the digitalis draught again, and to have more beef-tea and toast.—July 1, 9 A.M. He slept soundly all night, and felt well this morning. The pupils were rather contracted; skin cool; hands steady; pulse quieter. He was ordered to have a purgative as the bowels were confined, and to take saline mixture every four hours. From this time the patient was well. He took an ounce of tincture of digitalis in nine hours.

CASE III. *Delirium Tremens.*—Private Samuel Rippen, 1st Battalion 7th Foot, aged 38; service 19 years. He was admitted September 12, 1867. He was an extremely fat, flabby man. He was employed as cook in the officers' mess. The delirium was of a quiet nature. He was perpetually looking for various culinary articles in the bed, and at times fancied he had committed some act for which he was to be tried and was to be shot; he was very quarrelsome. Skin dry; aspect of face dull; tongue clean; pulse very weak, 74.—9 A.M. He was ordered to take two drachms of tincture of digitalis in water, and to have beef-tea and toast.—11 A.M. There was no change. The digitalis was repeated. He had drank two pints of beef-tea.—1 P.M. The only change was that the pulse was accelerated and stronger. The digitalis was repeated. 3 P.M. He continued to talk incessantly, and to look for pie-dishes. Skin dry; the face looked more dull; pulse 80, improving in strength. The digitalis was repeated. He had taken another pint of beef-tea, and eaten a chop with potatoes.—5 P.M. After being left, at 3 P.M., when the orderly was not looking, he tried to cut his throat with the hospital knife, which he had just been using to cut his mutton-chop. The knife was extremely dull, so no harm was done. There was no change in his condition. The digitalis was repeated.—7 P.M. He had just gone to sleep after taking more beef-tea and toast. The skin was moist, cool; pulse firm, 82.—11 P.M. He woke up whilst I was examining him, and said that he felt very sleepy, and went off again after taking more beef-tea.—September 13, 9 A.M. I found him sitting up in bed talking wildly, and therefore gave him two more drachms of the tincture. At 10 A.M. he had another pint of beef-tea, and went to sleep till 12 A.M. He then ate a mutton-chop, and slept till evening. He was allowed to dress and take a brisk walk in the hospital yard (between two orderlies) for an hour. He then went to bed and slept till morning, and woke up quite well.—September 14, 9 A.M. He said he could not keep awake, and felt heavy over the eyes. The pupils were natural.—This patient took ten drachms of tincture of digitalis in ten hours, and two drachms more after sixteen hours' interval.

CASE IV. *Ebriositas.*—Private Robert Follows, 1st Battalion 17th Foot, aged 37; service thirteen years. This man was admitted on the evening of September 18, 1867, in a very shaky condition from the effects of drink. He had already been in hospital six times suffering from ebriositas.—September 19. This morning he said that insects innumerable were crawling about the bed, for which he continued busily looking. This showed that the case ought to have been returned as delirium tremens. At 11 A.M. he was ordered two drachms of tincture of digitalis in water.—1 P.M. He continued in the same state; was quite quiet; pulse rather full, 84; pupils natural. He had eaten his dinner, consisting of beef-tea. The digitalis was repeated.—3 P.M. He felt sleepy, very heavy over the eyes. The pupils were a little dilated; skin moist; pulse 90, softer. No medicine was given.—5 P.M. He was in a gentle doze. The skin and pulse were the same as in the last note.—9 P.M. Had been dozing the whole evening. He still felt very sleepy and heavy over the eyes. Pupils natural; skin moist; pulse soft, 90. No medicine was given.—September 20, 9 A.M. He had slept well all night, and said that he felt all right again. He was ordered to get up, and to take brisk exercise in the hospital-yard, and to have saline mixture during the day. The patient may be considered well from this date, for he had no more fancies, and the nervous system was perfectly steady. This man only took four drachms of the tincture of digitalis. Small as the quantity was, I feel confident that, with ordinary treatment, acute delirium would have supervened; whereas, in four hours the illusions left him, and he commenced to sleep.

CASE V. *Delirium Tremens.*—Private Patrick Hanratty, aged 24; service 9 years. October 11th, 1867. He was admitted to-day suffering from delirium tremens. He was a stout muscular lad. Tongue very foul; face flushed; expression dull; pulse 84, rather weak. He was ordered to take at once fifteen grains of powdered jalap, three grains of calomel, and two of ginger.—11 A.M. Two drachms of tincture of digitalis were given in water.—1 P.M. There was no change in his condition. He had eaten his dinner of beef-tea. Skin dry; pulse 90, weak and fluttering. The digitalis was repeated.—3 P.M. Pulse stronger, 92; skin inclined to be moist. The purgative had acted freely. The pupils were natural. He said that there were a great number of devils about his bed; he jumped out of bed on any noise occurring, and looked wildly about him. The digitalis was repeated.—5 P.M. He was in a profuse perspiration, and was inclined to sleep. The pupils were rather dilated; the expression of the face less dull. He said that swarms of little devils were about the bed. Pulse stronger and full, 95. The bowels had acted three times since morning. The digitalis draught was again given.—8 P.M. He was bathed in warm perspiration. He dozed all the time; every little while he gave a start, indicative of terror, but did not wake up. I awakened him, and found the pupils semi-dilated; pulse not so full, 88. He spoke rationally, and said he had been dreaming. He had drank a pint of beef-tea this afternoon. The digitalis was repeated.—October 12, 11 A.M. He slept for three hours during the night. He said the devils were not very troublesome, but continued numerous. Pulse soft and inclined to weak, 78. He looked rather dull in the face. The bowels had been open twice during the night. The digitalis was repeated.—1 P.M. Pulse stronger and fuller, 84; skin moist and warm; pupils semi-dilated. He looked brighter. The digitalis was again given.—3 P.M. He said he felt sleepy; was perspiring freely; pulse full, 90. He drank a pint of beef-tea. The digitalis was again given.—5 P.M. He was fast asleep. There was profuse perspiration; pulse even, softer, 86. No medicine was given.—8 P.M. He was still asleep. The pulse and skin were the same. No more digitalis was given.—October 13. He had slept the greater part of the night. He said that he had no dreams and was quite comfortable. Pulse 84, of fair strength; pupils normal. He was directed to get up, and take a brisk walk in the hospital-yard. He was ordered to have three times a day, five grains of sulphate of quinine with fifteen minims of dilute sulphuric acid and an ounce and a half of water. From this time the patient may be considered quite well of the disease. He took in two days two ounces of tincture of digitalis.

It will be seen from the foregoing cases, that the advantages to be derived from digitalis in the treatment of delirium tremens are: a tonic action on the heart, a sedative to the nervous system (this is particularly marked in cases I and II), a rapid induction of sleep, and cessation of delirium. I have now treated eleven cases of delirium tremens with tincture of digitalis, and with uniform success. The smallest quantity required has been four drachms, and the greatest twenty-eight drachms. This last was taken in thirty-three hours by a man in Canada; the only effect was that he was bathed in warm perspiration, and slept soundly for two days and nights, with the exception of waking up about every six hours to drink beef-tea. This was the worst case of delirium tremens I have ever seen. It required the united efforts of eight strong men to keep the patient from injuring himself. It was the second attack in six weeks. I have always remarked that the disease supervening after hard spirit-drinking is extremely severe, and requires more treatment.

Although I have never found any bad results from the medicine, I invariably examine the patient before repeating the dose, as poisoning is possible. This, without doubt, occurred five or six years ago to a patient who was ordered four drachms of the mixture every two hours, and very shortly after taking the third dose died, with all the symptoms of poisoning. Therefore, if this treatment be decided on, I would strongly recommend that the patient be carefully watched. I feel perfectly convinced as to its value, even if we consider only the shortening of the disease, this treatment only requiring from one to three days at the most; whereas the old modes require from three to fifteen days to combat the disease. I might add that I never give a drop of either wine, spirits, or beer, for I consider it is only adding fuel to the flame; but I allow as much beef-tea as the patient can take, or meat if it is fancied.

CLINICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

DEATH APPARENTLY IMMINENT FROM THE PRESENCE OF TAPE-WORM.

By E. Garraway, Esq., Faversham.

L. H., a little girl, aged 13, had been suffering for some days from diarrhœa. This had now ceased; but I was sent for in consequence of continued vomiting, which had taken its place. She presented in some degree the aspect of one approaching the algide stage of cholera. The extremities were cold, eyes sunken, surface pale, pulse almost imperceptible, tongue furred and clammy, and there was constant pain in the epigastrium. A sustaining and stimulating dietary was ordered, but nothing could be retained. Calomel and opium, prussic acid, oxalate of cerium, together with mustard-poultices, blisters, etc., all failed to stay the sickness. At length, under drop-doses of carbolic acid, it subsided; still four days had passed, and there was no reaction; the child continued cold, and death appeared imminent from collapse.

Cogitating upon how I should fill up the "certificate of cause of death", my attention was called to one of the motions (the bowels had acted naturally), in which I discovered a fragment of tape-worm. The hint was gladly accepted; a full dose of turpentine with castor-oil was given; eleven feet of worm were quickly expelled. The child rallied immediately, and recovered herself at once.

CASE OF RUNNING OVER IN A CHILD, AGED TWO YEARS AND EIGHT MONTHS: RECOVERY.

By E. T. R. Tenison, M.D., Shepherd's Bush, W.

On May 23rd last, the wheel of a cart was backed by a restive horse over the spine (in the lower dorsal region) of George Freebody, a delicate, though well-grown child, aged 2 years and 8 months, residing in Old Oak Lane, East Acton. At the time of the accident the child was lying on his face on the road. I saw the patient fifteen minutes afterwards, and found him pulseless, very pale, covered with cold clammy sweat, features sunken, eyes closed, and respirations sighing (14 in the minute). Not a trace of external injury, save a slight abrasion of the right forearm, was to be seen. After the exhibition of stimulants and a hot bottle to the feet, feeble reaction occurred, and a small quantity of blood was vomited. The collapse continued till next day (sixteen hours), and blood was again vomited on two occasions. Under the influence of perfect rest, small and very frequently repeated doses of calomel and opium, and milk, beef-tea, ice, etc., for diet (carefully excluding all solid food), he made a rapid recovery, and is now quite well.

What was the internal injury sustained? and whence came the blood? To these queries, I do not venture an answer. I publish the case, as it proves that a young child may live after undergoing a pressure of at least 560 lbs., the cart itself weighing 11 cwts.

REVIEWS AND NOTICES.

Researches in Obstetrics. By J. Matthews Duncan, A.M., M.D., etc. 8vo. Pp. 467. Edinburgh: A. and C. Black. 1868.

Bearing in mind the interest caused by Dr. Matthews Duncan's work on *Fecundity, Fertility, Sterility, and Allied Topics* (1866), its perspicuity and preciseness, the labour and value of its varied and many tables, on seeing another book appear by the same author, we expected a further treat in literary food, and we can well say that we have had an agreeable feast. It has required a considerable period for proper digestion; but the result has been that we have found it wholesome and nutritive. The book is so well worth reading on account of the clearness of statement, the accuracy of argument, the labour shown in many investigations, and the interest of the subjects brought forward, that we would not by a too elaborate review deter any one from its perusal. Nevertheless, its value, as an addition to our obstetric literature, demands more than a mere passing notice.

And, first of all we will do our fault-finding; for then we can go with greater lightness of conscience to the matter of the book itself. Notwithstanding what the author says in his short Preface, the chief fault in his book is, that it so manifestly bears on its face the fact that its chapters are various papers strung together, some apparently with little alteration. The author, too, has here and there commenced an interesting subject, and, after giving us its history, etc., and some one else's ideas, says little to further elucidate it. He speaks of Dubois (p. 187) as if he were still alive. He often leaves us at the end of a paper unsatisfied; but we hope that at some future time he will give us the result of these lines of thought carried on to a satisfactory conclusion.

The publishers have printed the book well; the sketches, however, of sections of the sacrum and ilium are too rough, and Dr. M. Duncan has not clearly enough indicated the exact plane of their section.

We have now finished our slight modicum of blame, and will give a glance at the valuable contents of the book.

The book is divided into five Parts, and those parts again into Chapters. Part I is on the Statics of Pregnancy. The first chapter, on the Position of the Uterus, is extremely useful. The author shows that, in the erect posture, the pregnant uterus is inclined to the horizon 30 degrees; that, in the supine posture, the uterus is also little changed in position, being still oblique, but at 60 degrees; and, as a deduction from this, that the best position to obtain *ballottement* is when the uterus is perpendicular; *i.e.*, when the patient is reclining with the spine at an angle of 30 degrees with the horizon.

In the next chapter is discussed the Position of the Fœtus *in Utero* in Advanced Pregnancy. Dr. Duncan supports the gravitation theory by proofs, from the position of the fœtus floating in a fluid of the proper specific gravity. We hardly dare obtrude any thing into our author's accurate observations on physics; but there are two questions which we would suggest. May not the obliquity of the fœtus in the fluid, as if militating against the gravitation, be caused by the fœtus tending to descend at first perpendicularly, but then being deflected by the curve of the head, and so descending as an inclined plane and thus preserving its obliquity. Again, with regard to the upward tendency of the head of a dead fœtus, might not the easy decomposition of the brain have something to do with it? The idea of fœtal movements having anything to do with presentation is, of course, overthrown. The fourth Chapter contains some interesting remarks on the Gait of the Pregnant Female.

In Part II we have the most complete essay—if we may so speak of disjointed papers—in the book; viz., on the Pelvis, comprising its Development, the Function of the Sacrum, Deformities, and the Articulations. The body being taken in the erect posture, the sacrum is shown, by its then position, to be *not* a wedge with regard to the ilia, nor a key stone to an arch, but to be retained in its position by the strong sacro iliac ligaments. It transmits the force of the weight of the body through the spinal column, by means of these ligaments, to the heads of the femora, through the iliac beams which lie between them. The balance of power is thus preserved; the iliac beam is pressed against the sacrum as against a fulcrum; the sacro-iliac ligament pulls the shorter arm inwards, and the larger arm is prevented from falling outwards by the pressure of the femur on the acetabulum. The author, with great care, shows that, the forces that exist being brought to bear on the pelvis, it must be developed as it is; that, where one sacro-iliac joint becomes ankylosed, the obliquely contracted pelvis is the result, and when both joints are ossified the transversely contracted pelvis is formed; nature in this case securing the pelvis against the liability to fracture, by flattening the curves and conveying the force of the body to the acetabula in nearly straight lines.

The second chapter is a short and incomplete one, on the Formation of Rickety and Malacosteon Pelves.

The third and fourth chapters contain a masterly exposition of the Development of the Pelvis, elaborating the statements in the first chapter, and entering fully into the condition of the pelvis of Nägele and Robert.

In the fifth chapter, the author lays some stress on the value of the Pelvic Articulations, shows that the sacro-iliac joint is of use in parturition, and thinks that in certain cases symphyseotomy need not be excluded from the list of obstetric operations, throwing out the suggestion of its being performed subcutaneously.

Part III is on some points in the Physiology and Pathology of the Pregnant and Puerperal States.

The first chapter treats of Menstruation, showing that the mucous membrane, during menstruation, differs only in degree from the decidua vera of pregnancy; so that "the human female, at every menstrual period, passes through the first or initial processes of pregnancy." There is a space between the decidua vera and decidua reflexa, until between the second and third month of pregnancy; hence menstruation may then take place and superfœtation becomes possible.

In the third chapter, the Position of the Insertion of the Ovum is shown to depend on the state of the uterine cavity, the ovum having a greater tendency to sink lower in a relaxed multiparous uterus than in a primiparous; hence the infrequency of placenta prævia in primiparæ.

In the fourth chapter Dr. M. Duncan states that after delivery the muscular fibres of the uterus are not left exposed, but an uterine layer of the decidua is left *in situ*, as its mucous membrane. This chapter and the sixth are valuable, as containing a history of the various opinions held with regard to the structure and source of the decidua, and especially as upholding the accuracy of the observations and statements of William Hunter, as contrasted with those of John Hunter. On page 237 is the following summary:—

"Physiology, then, now teaches that the decidua vera is an uterine membrane; is the mucous membrane of the uterus; that in the early months its surface is cribriform, from the presence of the numerous openings of ducts; that none of the natural orifices of the uterus is closed by it, unless, indeed, the ovum is inserted over one or other of them. The decidua reflexa is also now known to be a process or production of the parietal decidua after the ovum has entered the uterus; and its history accords entirely with the indistinct, though correct, outline, found in William Hunter's writings."

In the seventh chapter, the author demonstrates that the true cervix uteri does *not* shorten during the advance of pregnancy, until the commencement of labour; and, suggests that the apparent shortening of the "pouting," if we may so express it, of the lips, may be due to the uterus in its ascent dragging on the vagina, and lessening the depth of the pericervical *cul-de-sac*. Some apparent shortening may be due to the softness of the margin of the os. The permanency of the length of the cervix is upheld in the new (1867) edition of Cazeau, by M. S. Tarnier, p. 102; and, also in a capital handbook "*Guide Pratique de l'Accoucheur et de la Sage-femme*, per M. Pénard," which embodies the views of M. Pajot.

The eighth chapter contains remarks on Fœtid Discharge in Retained Ova or Placenta; omitting, however, any notice of "missed labour", where the fœtus at term is retained *in utero*; an interesting paper on which subject was read by Dr. Greenhalgh before the Midwifery Section at the recent meeting of the British Medical Association at Oxford.

The first chapter of Part IV is a contribution to the Dynamics of Labour: wherein are some tables of elaborate experiments, the result showing that the average force of the power of the labour required to rupture the amniotic membrane was 16.73 lbs., and that the strongest membrane required $37\frac{1}{2}$ lbs. to burst it. The great majority of labours are, therefore, probably completed by a propelling force not exceeding 40 lbs.

Attention is drawn in the third chapter to the enormous strength of the uterus; there was required a pressure of more than 25 lbs. to the square inch to rupture it. Hence it is argued, that a perfectly healthy uterus is never spontaneously ruptured.

In the fourth and fifth chapters, the author contends that, though there is obliquity of the fœtal head at the outlet, it nevertheless enters the brim directly, not obliquely.

He maintains in the sixth chapter that the "caput succedaneum" is not necessarily equivalent to the presenting portion; that the former varies according as it is produced by the os uteri or the vaginal ring; that the apparent presentation depends in the early stage on the position of the os, whereas the presentation proper is "that point on the surface of the child's head, or other part advancing first, through which the axis of the pelvis passes."

In treating of Inverted Uterus, Dr. M. Duncan says in the seventh chapter, "Four kinds of uterine inversion occur after delivery:—1. Spontaneous passive uterine inversion; 2. Artificial passive uterine inversion; 3. Spontaneous active uterine inversion; 4. Artificial active uterine inversion."

The first occurs in inertia uteri, the whole organ being lax, and inversion being produced by bearing down. In the second, the same condition is present, and force is either applied externally, or from within by traction on the cord. In the third, paralysis of the fundus causes its depression, and the depressed portion is expelled by the adjacent contracting segments of the uterus. In the fourth, the same process is commenced by active interference.

In Part V, the first chapter contains some interesting observations on the Retentive Power of the Abdomen. May not part of this so-called retentive power be due to atmospheric pressure, and not to the supporting power of the liver only? (as at p. 425). Again, is not the case stated on p. 426 (suggested by Professor Tait) rather hypothetical, as it would be difficult to imagine a layer of fluid remaining on the upper surface of the liver unless its free edge were tied up by some adhesions to retain the fluid, in which case, the fluid being entirely enclosed, the atmosphere would act still as a supporter. With regard to the retentive power and its antagonist "straining," we think this aspect interesting. The anterior wall of the lower segment of the abdomen inclines from below upwards and outwards; tension (involuntary, preservative) of the abdominal muscles would propagate a force at right angles to their plane, *i. e.*, upwards and inwards, and so supportative and retentive; whereas, in straining, tension of the upper segment would in the same way produce a force downwards and inwards, as the plane of the upper segment of the abdomen lies more or less downwards and outwards.

The second chapter contains some Measurements of the Superficial Area of the Cavity of the Uterus, and the last chapter is on cases of double vagina with a single uterus.

We think enough has been said to induce our readers to study this interesting work; which, together with his former one, places Dr. Matthews Duncan amid the front rank of those writers who bring to bear on the many abstruse points in our wide-ranging profession a scientific and philosophic mind.

1. The Mineral Waters of Vichy. By Dr. Casimir Daumas. Fourth Edition. Vichy: 1867.—2. Notes on Spa. By Thomas Cutler, M.D. Eighth Edition. 1868.—3. Schlangenbad. By Rudolph Wolf, M.D. English from the original MS. by Christ. Benson. 1868.

The very sound of the words "foreign spas" causes in many people an intense longing to leave the oppressive heat and dust of the streets of our large towns, and to exchange the parched appearance of our lawns and parks for the pure mountain breeze, and for the fresh verdure of wooded hills and of valleys traversed by green streams; but, at many foreign spas, the health-seeker on his arrival is much disappointed. Vichy, for instance, is a very superior place, as far as the waters go; and the food and the inns, too, are tolerably good; but the heat and dust are excessive, the ground is dry and grey, the trees are, by this time, almost leafless, offering neither shade from the broiling sun nor relief to the eye. Spa and Schlangenbad are better, in this respect, than Vichy; they have the advantages of mountains and valleys; they are, further, surrounded by hills covered with verdure, and have beautiful shady walks through forests and along murmuring streamlets; but, during hot summers, they suffer, likewise, from heat and imperfect circulation of air, and are through this, to many constitutions, inferior to spas with similar springs, but situated at higher elevations and in wider valleys. Such points are of the greatest importance in the selection of spas. While some constitutions and conditions of health are benefited by a chalybeate water situated at an elevation of only five hundred or a thousand feet above sea-level, others require an elevation of four thousand or five thousand feet, and even the same constitution may require a different spa of the same class in different months of the year; while Schwalbach and Spa may be well adapted to it in the cooler months of May and September, the tonic influence of the waters would be counteracted by the heat of July and August. Thus, the "Ponhon" at Spa, and the "Stahlbrunnen" at Schwalbach, are excellent chalybeate springs, much richer in iron than those of St. Moritz, in the Engadine; yet, in many constitutions, the combined effect of the climate and springs of St. Moritz is far superior to that of either Spa or Schwalbach.

Dr. Wolf has done good service in directing attention to quiet, genteel, and sociable little Schlangenbad, with its soft baths, of which, even now, many people say, with the Frenchman in the *Bubbles*, "dans ces bains on devient absolument amoureux de soi-même." Much of active principle they do not possess, but they are a "delicious luxury"; ladies believe in their embellishing powers, and the whole *ensemble* of the retired spot has something soothing, not only to the lady of fashion, but also to the overworked scholar and statesman.

But what shall we say of Dr. CASIMIR DAUMAS' book on Vichy? Perhaps we can induce our professional brethren to procure for themselves the great scientific treat of reading it, by quoting a short passage from the chapter on the Mode of Action of Waters.

"Taken as baths, they excite the surface of the skin, and bring back, by stimulating them, the functions of the skin. In the interior, they produce a similar effect on the gastro-intestinal mucous membrane and on the digestive functions, which, under their influence, become regular. That is, they act directly, to give them vigour on the entire system of nutrition, on the powers of assimilation and elimination, and from these qualities, they must be considered as one of the most powerful remedies for the human system." (Pp. 288-9.)

A DICTIONARY OF CHEMISTRY, and the Allied Branches of other Sciences. By HENRY WATTS, B.A., F.R.S., F.C.S. Assisted by eminent Contributors. In Five Volumes. London: Longmans, Green, and Co. 1868.

WATTS's *Dictionary of Chemistry*, the completion of which we announced on a recent occasion, deserves more than a passing notice at our hands, and we return to the subject.

Nothing is better calculated to give a just idea of the permanent rank which such a book as the one before us will occupy than its reception abroad. Professor Hermann Kopp, who was for some years one of the editors of the well-known *Jahresbericht*, and is an editor of Liebig's *Annalen*, and than whom there is hardly any one better able to give an opinion on such a subject, speaks of the work in the highest terms. In France, influenced by the success which this book has already achieved, a number of chemists, with Würtz at their head, have set to work to produce a similar book. The first step taken by a contributor to this French *Dictionary of Chemistry*, was to buy Watts's Dictionary. The French book is to be smaller than the English one, viz., two volumes (the English one being five volumes); and will, no doubt, have peculiar excellencies of its own. A very important element in determining the value of a book like this is the length of time occupied in bringing it out. "Inversely as the time consumed," that is the measure of the value. The German *Handwörterbuch* took twenty years or more to bring out, and the first half of it had become rather antiquated before the latter half appeared. Watts has taken nine years, as he tells us in his *final preface* to vol. v. Prefaces, as people know, are written last; and, accordingly, the final preface to vol. v, bearing date May 1868, came out with the last number of vol. v, and marked the termination of the Dictionary. The French book is to be a model of virtue in this respect, and is to be brought out with astonishing rapidity.

When the French *Dictionary of Chemistry* makes its appearance, perhaps we may be obliged to modify our opinion; but, at present, Watts's *Dictionary of Chemistry* is the best treatise on the science in any language—*i. e.*, in English, French, or German. The great bulk of the book has been written by Mr. Watts, the editor. Much, however, is the work of eminent chemists who have associated themselves under the direction of Mr. Watts; each one, as far as possible, writing on his own peculiar subject. In no branch of knowledge does an arrangement of this kind offer greater advantages than in the science of chemistry. Many of the articles in the Dictionary could not have been compiled by any other chemist than their respective authors. There is matter in the book which is absolutely original in every sense of the word. Our medical readers will find articles of value on various physiological subjects: for example, Michael Foster's article, "Nutrition". General physics, general chemical doctrine and theory, are treated at great length, as, indeed, they should be in a work of this kind. The first volume contains a very complete and exhaustive treatise on Chemical Analysis in all its branches. Various economic subjects (chemical technology, as it is termed) are treated. Thus we find Fuel, Manure, etc.; the latter containing a very excellent account of the chemistry of agriculture, by Dr. Paul. Towards the end of the book, under the letter W, we meet with Water and Water Analysis—a subject of which the treatment is thoroughly modern. Both Frankland and Armstrong's method for organic matter, and Wanklyn, Chapman, and Smith's method, are given in detail. The writer, Dr. Paul, remarks on the economy of time and trouble pertaining to the latter method. He also gives a statement of the relative degree of accuracy attainable by the two processes. According to this statement, the error in Frankland and Armstrong's determination of organic nitrogen is 1·21, 0·55, and 0·03 in a million parts of water. Wanklyn, Chapman, and Smith, on the other hand, according to Dr. Paul's article, make a mean error of only 0·004 parts of organic ammonia in a million parts of water. This account tallies perfectly with the remarks we made in this JOURNAL some few weeks ago. Our readers will not be surprised to be told that, under these circumstances, chemists are not adopting Frankland and Armstrong's process, but are betaking themselves to the comparatively rapid and easy, and at the same time more accurate, process of Wanklyn, Chapman, and Smith.

Our space does not allow us to attempt anything like a detailed criticism of the book. Suffice it to recommend Watts's *Dictionary* to all our readers who desire to possess the most splendid chemical book of reference.

PROGRESS OF MEDICAL SCIENCE.

SURGERY.

AMPUTATION AT THE KNEE-JOINT.—The last number of the *American Journal of the Medical Sciences* (April 1868) contains an article of great interest and value on Amputation in the Region of the Knee. The author, Dr. J. Brinton of Philadelphia, gives a short history of the operation, and the results of cases reported by military and civil surgeons in America, and by many European authorities. By study of this article, and also of an important paper by Mr. Carden of Worcester, published in the BRITISH MEDICAL JOURNAL (April 16th, 1866), it will be found that a sufficient number of reliable data have been collected to enable the modern surgeon to determine the true value of this modification in the removal of a mutilated or diseased extremity. Dr. Brinton observes that a distinction is to be made between amputation at the knee-joint and amputation at the knee. In the latter, the femur is sawn through above the articulation; whilst, in the former, the condyles, and sometimes the patella, are retained with their incrusting cartilages—an important modification just performed in England by Mr. Lane of St. Mary's Hospital, and afterwards by Sir W. Fergusson, Mr. Coulson, and others. The whole number of recorded cases of amputation at the knee-joint during the American war was 211; of these, 96 recovered, 106 died, and the results in 9 were undetermined. Reamputation of the thigh was resorted to in 12 cases, in 8 successfully, and in 3 fatally. The average mortality of the whole number of cases is thus 50.2. The mortality of thigh-amputations performed during the same period was 64.43 per cent. The following are the chief results of amputation at the knee-joint in American civil practice. The total number of cases was 64, of which 7 were under the care of Dr. Brinton; primary amputations after accidents, 24 cases, with 16 recoveries and 8 deaths; secondary amputations after accidents, 20 cases, 13 recoveries and 7 deaths; secondary amputation for disease, 18 cases, 15 recoveries and 3 deaths. The mortality was thus 28 per cent., that of European practice being 27.65 per cent.; since, in 47 collected cases, there were 34 recoveries and 13 deaths. The mortality for thigh-amputations is in America about 41.4 per cent.; in Paris, 62.6 per cent.; and in Great Britain, from 50 to 70 per cent. The death-rate from amputations of the leg below the knee is about 35 per cent. The diminished mortality of amputation at the knee, compared with removal of the limb above or below the joint, is attributed by Dr. Brinton to diminished shock of operation, which is a marked feature of the operation; to the nature of the tissues involved, and the small extent of the suppurating surface; and, finally, to the fact that the shaft of the femur is not sawn across. Dr. Brinton's experience in military practice has convinced him that, in all amputations in continuity, the patient's immunity from osteo-myelitis and subsequent pyæmic poisoning is greatly influenced by the point at which the saw is applied. The nearer to the centre of the bone this is done, the greater, probably, will be the chances of inflammation and disastrous sequelæ. In writing of the danger of amputation at the knee-joint, Dr. Brinton asserts that subsequent synovial inflammation, which is feared by some operators, is in reality but an imaginary peril. One serious condition of occasional occurrence is inflammation of the tendinous sheaths of the biceps, sartorius, semimembranosus, semitendinosus, and gracilis muscles, which is rapid in its course, and leads to suppuration. In all the operations which have come within Dr. Brinton's observation, the result as to value of the stump has been favourable. "There is seldom any tenderness on pressure; the patient generally bears his weight freely upon the end of the stump, and can use an artificial limb with ease and comfort."

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 29TH, 1868.

VACCINATION AND SMALL-POX.

IN inducing guardians to use the powers which the Vaccination Act now gives them, medical officers and district vaccinators are frequently met by the objection, that a goodly number of those who suffer and die from small-pox are vaccinated persons. It is necessary to be armed with the proper evidence of facts on which to answer this objection; for it must now be considered one of the most important duties of our profession, to enlighten the minds of local authorities on this subject, and to fulfil with care and efficiency the office of vaccinator. Those who have possessed themselves of Dr. Seaton's invaluable *Handbook of Vaccination* recently published, will find the full answer ready to their hands; and we should recommend every public vaccinator to indulge himself with that excellent book. Dr. Ballard also, in his prize Essay on Vaccination, which we recently reviewed, discusses fully this question. In his last annual report, as medical officer of Islington, he succinctly reviews the question in a few paragraphs to which we may profitably refer. After referring to the figures which show that only a very small proportion of the vaccinated take small-pox, as compared with the large proportion of the unvaccinated, he replies to the question why any vaccinated persons at all suffer on exposure, by pointing out, first, that the occurrence in a very small proportion of instances depends upon an exceptional proclivity on the part of some individuals to take the disease; such persons will suffer small-pox even after inoculation, or after having had the disease a greater or less number of years previously. Such as these, even one attack of small-pox will not protect against a second, or even a third, much less can vaccination (which is merely small-pox modified by passing through the constitution of the cow) protect. Secondly, about the time when adult age is attained there happens, from constitutional causes, a remarkable tendency to take small-pox, both on the part of the vaccinated and the unvaccinated, who may hitherto have escaped attack; but even at this age vaccinated persons are comparatively protected by the vaccination they have undergone. Thirdly, besides this, the protection of vaccination given in infancy gradually wears out as age advances, and hence an unknown proportion of such individuals are endangered. It is on this ground, as well as on that mentioned in the second place, that he has from time to time urged in his monthly reports the necessity for having recourse to revaccination, and in periods of epidemic outbreaks had pressed upon the district vaccinators the desirableness of offering to adults in small-pox localities the renewal of their protection. Fourthly, he says, a great deal of the vaccination performed now is of a very imperfect character; this is partly the fault of the operator in not being careful in the selection of the pocks from which he takes the virus, or in using preserved or dry virus in place of vaccinating from arm to arm.

He continues as follows. "But there is an additional cause in the now indisputable fact, that the virus which has passed through some hundreds or thousands of human systems since it left the cow, has undergone, in such transmission and repeated human generation, a degradation in its character and force. The vaccine disease, as produced by most practitioners now by arm-to-arm vaccination, is a much less virulent disease than it was when first inoculated by Dr. Jenner, or than it has proved itself where new sources have been opened on the occasional discovery of natural cases of cow-pox. Jenner contented himself with a single puncture with such virus, and was even then alarmed, although needlessly, at the local result produced; others, under similar circumstances, have contented themselves with two; whereas, for the production of a satisfactory result with the virus mostly in use here, four or eight punctures are needed, and even then a less amount of constitutional disturbance follows the operation. Yet, we find on examining the arms of vaccinated children, in place of scars which may be seen half across a long room, marks so poor and superficial left by the vaccination, that close inspection may be needed to see them at all, and, in place of four to eight pocks, possibly one or two paltry vesicles raised by the operation. Can it be wondered at, then, that the reputation of a protective is endangered when the protective itself is not what it was when it was originally introduced? There is but one remedy for this; namely, the occasional renewal of the stock of virus we use from the cow or heifer, and in the meantime the production, as a substitute for quality, of an increased number of pocks with the human vaccine. In Paris, all the public vaccinations are performed from the heifer. We have no arrangements for this here as yet. A paternal government presides there for the protection of its people. That we have no national provision of the sort here, is part of the price we pay for our liberties. With us, every man does pretty much what seems right in his own eyes; Englishmen believe that on the whole the balance of advantage is on the side of their own system. I mention all this now, partly because it is a subject which has occupied a good deal of my thoughts during the past year, and partly, because I have experienced an indisposition on the part of the Trustee Board to put in force their powers under the old Act of Parliament to enforce the vaccination of unprotected children. I have fancied that they might have felt something of a similar difficulty in administering the law that Parliament seems to have felt in framing the Compulsory Vaccination Act; and I have thought that, now that new powers are conferred upon them, some such brief statement of facts as I have given may possibly be of use in strengthening their hands for the work they are called upon to engage in. What I desire to see is the primary good vaccination of every infant born in the parish or brought into it unvaccinated, the revaccination of all on the attainment of the age of puberty, and an improvement in the quality of the virus in use. The first of these desiderata the guardians of the poor are fully empowered to insist upon, the second lies in the hands of the district vaccinators in part, who might do much if they would bring some amount of zeal and devote a sufficient time to the work of vaccination amongst the poor, and in part in my own hands, by urging upon all the importance and necessity of revaccination; the third desideratum I see as yet no means of compassing, although I hope that I shall see my way to it before long."

We have preferred to use the very words of Dr. Ballard, because they express with great clearness and force propositions of considerable moment. It is impossible not to attach great value to these comments. No service which medicine has yet rendered to mankind is greater than this of protection from small-pox. Our credit as a profession, our sense of duty as individuals, and our just national pride, are all concerned in the carrying out vaccination in the most thorough and efficient manner. The last report of the medical officer to which we have referred, indicates a great need of improvement in this respect; and we trust to assist in forwarding it by opening these columns to a discussion of the causes and remedies.

THE RAILWAY ACCIDENT AT ABERGELE.

THE more we think over a calamity so horrible as that which occurred on Thursday week, the less do we feel able to grasp its dreadful character. This feeling is doubly enhanced by visiting the spot, inspecting the remains of the dead, and talking with the survivors. We say, after the lapse of a week, that nothing in our experience, not even the horrors of the Clerkenwell outrage, where many of the victims lived to suffer, has left so deep an impression on our minds as the result of our investigation into this fearful calamity. That more than thirty persons were suddenly suffocated and burnt up on a railway, is something so utterly new that we are at a loss what to say of it. And yet, after hearing the facts of the case, we have no reason whatever to feel surprised. An engine, going at the speed of thirty miles an hour, rushes into collision with several trucks coming down an incline at a rapid pace, and containing thirty or forty barrels of paraffin; the barrels are broken, and the paraffin, ignited by the fire from the engine, runs down the incline under the carriages, and immediately destroys the life of every being within these carriages. The combination of circumstances resulting in the accident was unusual. We should not, however, considering the way in which railway traffic is managed in this country, be surprised at its occurrence.

Through the kindness and courtesy of Dr. McEwen, of Chester, the medical officer of the line, every facility was afforded us for investigating the whole facts of the melancholy occurrence. We are, therefore, enabled to speak somewhat decidedly on the subject.

The chief point of interest to us as a profession, indeed to every one, and particularly the friends of the dead, lies doubtless in the question, How was death produced? Now, we have made special inquiries on this point, of the guard, driver, and others who were present, all of whom confirm our previous conviction that almost sudden death ensued. It is idle to suppose that a shock, which threw the tender of the engine on to the opposite bank, did not more or less affect the passengers in the doomed carriages. It was certainly less than one would, *à priori*, have supposed, as those in the other part of the train would have suffered more severely if it had been greater. But still the shock, which produced insensibility for some time in one at least of the passengers, and stunned for the moment the guard in the last carriage, must, we think, have affected in a greater degree the unfortunate victims in the foremost carriages, and rendered them at least partly insensible to the speedy destruction of life caused by the dense fumes of paraffin. Any one who knows the insufferable nature of paraffin-smoke can form an idea of the suddenness of death, enveloped as they were in it, which must have overtaken the unhappy passengers. It is a comfort, in the midst of this awful calamity, to know that their sufferings, in all human likelihood, must have been short indeed. Enough has been written in the daily papers to give one an idea of the destruction to the bodies which resulted from the intense heat of several hours, which fused gold ornaments and sovereigns, and transformed a neighbouring limestone-wall into lime. We may merely add, that we carefully inspected the bodies; and, although many of them were almost literally burnt up, others, notwithstanding their having been exposed to intense heat during several hours, presented trunks with the internal organs little affected, leading in some instances to the identification of sexes, and by means of which the careful report of the medical men was chiefly drawn up. One peculiarity struck us forcibly: the vessels and intestines were in several intact, and especially in one body, which was almost entirely destroyed, but in which the abdominal aorta was untouched. The bones were in many cases entirely consumed; and in others this was alone prevented by the thick layer of muscles covering them. Certain identification of individuals from the remains only was impossible; and we can in this only coincide in the opinion of the medical men, who have discharged their trust so ably. The injured, who were surprisingly few in number, were attended by Dr. McEwen. The guard was rather severely shaken, injured in his left arm, and suffered for several days from nervous shock. The driver received a deep scalp-wound, and was considerably bruised and shaken. One gentleman received a severe blow on the temple, and suffered from concussion for several hours. He was, however, able to proceed on his journey on the following day. Another passenger was injured below the knee. These are the chief casualties. There were, in addition, a considerable number of slight bruises, but none of any moment.

TWO persons have lately been convicted of illegal practice before the tribunal of correctional police at Strasbourg. One, a barber, was fined thirty *francs*, with costs. The other was accused of homicide, swindling, and illegal practice, under the cover of animal magnetism. He was condemned to be imprisoned four months, and to pay a fine of three *francs* for each of 787 acts of illegal practice, making in all 2,381 *francs* (rather more than £95 in English money).

AT a recent meeting of the Town Council of Edinburgh, it was proposed that, should Lord Napier of Magdala visit that city to receive its freedom, the civic honour shall be conferred also on Sir James Simpson.

DR. W. C. RUSSELL, F.C.S., has been appointed Lecturer on Chemistry in St. Mary's Hospital Medical School, in the room of Dr. Matthiessen.

DR. La Fargue, of Godalming, is a candidate for the coronership of the County of Surrey, vacant by the death of Mr. C. Woods. We are glad to see that a medical candidate for the office has appeared in the field, and trust that the profession in the county will give him their support.

IT has been decided that the meeting of the British Association for the Advancement of Science will be held in 1869 in Exeter; and that Professor Stokes, of Cambridge, shall be president.

A SOCIETY of Legal Medicine has been formed in Paris during the present year, under the presidency of M. Devergie. Its first meeting was held on March 9th; and on the 13th July the session was adjourned, a report being read by the President.

THE Governor-General of Algeria has been authorised to present, in the name of the Emperor, twenty-one gold and four silver medals to certain civil and military surgeons, for services rendered during the prevalence of epidemic disease in 1867 and 1868.

DR. JOHN O'REILLY, of New York, offers for universal competition a prize of 600 dollars for an essay on the Physiology and Pathology of the Sympathetic or Ganglionic Nervous System. Essays, marked each with a distinguishing device or motto and accompanied by a sealed envelope, must be sent to the Secretary of the Committee, Dr. J. C. Dalton, New York, on or before March 1st, 1869.

DR. Dietl, Emeritus Professor of Clinical Medicine in Cracow, and now Burgomaster of that city, has received the order of the Iron Crown, of the third class.

AT the Mold Petty Sessions, on the 17th instant, William Janion Jones. druggist, was charged by Mr. Eyton Jones with unlawfully using the title of surgeon. The circumstances were, that the defendant, who was a vendor of drugs in Mold, in July last and previously had attended to one Edward Williams, who had received an injury to his hand. He died somewhat suddenly. Deceased's son applied to defendant for a certificate, which he obtained, signed "William Janion Jones, surgeon." The defence was, that the defendant had been an apprentice for three or four years, and had passed an examination in Edinburgh (before what Board is not stated), and had in his possession a diploma. It was also urged that he put the words "n. r." after "surg." on the certificate, to denote that he was not registered. The magistrates, however, considered the charge proven, and imposed a fine of £10 with costs, or, in default, fourteen days' imprisonment.

THE firm action of the medical profession of Michigan in the undermentioned matter is worthy of high commendation. We congratulate them on the result of their resistance. An act of the Legislature of Michigan, at its last session, granted aid to the University of that state, on the condition that a Professor of Homœopathy should be introduced into the Medical Department. Much agitation and annoyance were consequently experienced by the profession. The Faculty of the University announce that the Board of Regents, who control the University, at a recent meeting resolved, with but a single dissenting vote, that in no circumstances should such professor be introduced into the Medical College. The profession is further assured, that the Medical Department of the University of Michigan is entirely free from the remotest connection with homœopathy; that its curriculum will not be changed; and that it will remain as heretofore unaffected by any form of irregular teaching or practice.

THE Emperor of the French has issued a decree for the establishment of a school of advanced study (*Ecole pratique des hautes études*). The instruction is to be both theoretical and practical. It is divided into four sections: 1. Mathematics; 2. Physics and Chemistry; 3. Natural History and Physiology; 4. Historical and Philological Science. The Council of Advice will consist of the heads of various scientific and learned bodies; one of the members being the Dean of the Faculty of Medicine.

AN illustration of the fact that the law regulating the sale of poison is still in an imperfect state, occurred recently at Bedminster, near Bristol. A woman named Grundy, a widow, thirty years of age, had some "vermin-powder", and died, with symptoms of strychnia-poisoning, after swallowing a quantity of this which had been mixed with water. It appeared most probable that she had not taken it for the purpose of committing suicide, but through mistake; but, in the absence of any positive evidence in support of either view, an open verdict was returned. The coroner very properly animadverted on the fact that, while restrictions were placed on the sale of strychnia and other poisons, persons could buy as much "vermin-powder" as they pleased, without being questioned. So many deaths have resulted from poisoning by the "vermin-killer", as to demand serious attention. It may be urged, with some plausibility, that it would be an unfair interference with the liberty of the subject to place restrictions on the sale of substances intended for the destruction of noxious animals. Still the indiscriminate sale of such an article as the vermin-killer, one powder of which is said to contain strychnia enough to kill three persons, is a matter on which the legislature ought to take action.

THE FEVER IN CALLAO AND LIMA.

BY the last advices received on August 25th, we find that the yellow fever had entirely disappeared from Callao, and was diminishing rapidly in Lima, in which latter place the deaths had become reduced to about seven daily.

THE STATUE OF LAENNEC AT QUIMPER.

THE public ceremony of the inauguration of the statue of Laennec, the discoverer of mediate auscultation, at Quimper, took place on Saturday, the 15th instant, in the presence of a large number of members of the medical profession from various parts of France. The day chosen for the ceremony was also that of a Breton religious festival, or *Pardon*. The statue is placed in the midst of the largest open space in the town; it represents Laennec seated, in his professional robes, holding in his right hand a stethoscope, and with his left arm raised and the forefinger pointed towards the ear. On one side of the pedestal, which is of Breton granite, is simply the word "Laennec." On the opposite side is the following inscription. "A l'inventeur de l'Auscultation, Laennec, René-Théophile-Hyacinthe, né à Quimper, le 17 Février 1781, mort à Ploaré en 1826, Professeur à la Faculté de Médecine de Paris et au College de France; Membre de l'Académie de Médecine. Ce Monument a été élevé par l'Association Générale des Médecins de France, par la Bretagne, et par les Médecins français et étrangers le 15 Août, 1868." The ceremony was attended by the prefect, the bishop, the mayor of Quimper, M. Tardieu, the President of the General Association of Medical Practitioners, M. Bouillaud, M. H. Roger, and M. de Kergaredec. The Prefect of the department gave a sketch of the life of Laennec; the mayor of Quimper spoke of the honour which the town possessed in having been his birthplace; and speeches were also delivered by M. Tardieu; by M. de Kergaredec, on behalf of the relatives and friends of Laennec; by M. Henri Roger, on the part of the Academy of Medicine; by M. Bouillaud, as the organ of the Faculty of Medicine in Paris; by Dr. Lediberder, of Lorient, in the name of the medical profession in general; and by M. Halleguen, president of the Medical Association of Finisterre, in the name of the profession in Brittany. The ceremony was followed by a public dinner. The order of Knight of the Legion of Honour has since been conferred on Dr. Halleguen, and on Dr. Chauvel, vice-president of the Medical Association of Finisterre.

THE EFFECTS OF "MAYNE LAW".

IN a recent number, we had occasion to protest against the cruelty inflicted on dogs by causing them to be muzzled during the excessive heat of the summer. We stated that the edict issued by Sir Richard Mayne would fail in its purpose, and that it was founded on an ignorant and erroneous superstition that hydrophobia was more prevalent in the dog-days than at other seasons of the year. We pointed out that it is the very reverse; for Troilliet has shewn that hydrophobia occurs with nearly equal frequency in all seasons and in all climates. It, however, appeared, from the statistics he gathered, that in January, the coldest, and August, the warmest month, the smallest number of cases occurred. Statistics also shew, that the largest number of cases have occurred in November and February. In any case, the impression about the dog-days is completely erroneous. However, to test practically the result of Sir Richard Mayne's edict, we have been at some trouble to collect reliable evidence from the out-patient books, as to the number of cases of dog-bites seen at most of the chief London hospitals a month before and a month after the law was carried out, with the following results, which we beg to present for the perusal of the authorities at Scotland Yard.

	From May 23 to June 22, inclusive.	From June 22 to July 21.
St. Bartholomew's Hospital	9	10
Middlesex Hospital	7	8
St. Mary's Hospital	5	6
Westminster Hospital	6	9
Guy's Hospital	3	6
Charing Cross Hospital	2	8
King's College Hospital	2	2
St. George's Hospital	1	1
Total	35	50

We thus see that, instead of Sir Richard Mayne's law decreasing the number of dog-bites, it has, to all appearance, had the opposite effect; at least, the number of casualties are increased nearly one-third. We do not pretend to say that our conclusion is necessarily quite correct; but the ugly fact remains, that a very large increase in the number of casualties from this source occurred after the law was enforced. If the authorities at Scotland Yard cannot give excellent reasons for their fresh edict, ordering the continuance of a practice so cruel and so uncalled for, and disprove what we have just stated, the public have a right to demand its discontinuance. By all means let the police destroy the wretched curs that infest the streets—and we believe great good has been done in this respect; but they have no right to enforce cruelty to animals.

M. NÉLATON.

WE are sorry to see that Nélaton, contrary to expectation, retires from practice on his promotion to the Senate. It was hopefully believed that the Emperor would not insist upon M. Nélaton relinquishing his professional career.

THE TREATMENT OF CHOLERA AND OTHER DISEASES BY A COATING OF COLLODION ON THE ABDOMEN.

DR. ARSÈNE DROUET, in an article of which slips have been forwarded to us, promises marvellous results in the treatment of cholera and diarrhœa by the application of flexible collodion (*collodion riciné*) over the whole surface of the abdomen. He declares that the employment of this remedy at any period anterior to the stage of collapse, *instantaneously arrests the vomiting and purging;* then the cramps quickly cease, a sense of warmth diffuses itself over the whole body, and in less than two hours the patient is cured! The same treatment is declared to be equally efficacious in cutting short a paroxysm of hysteria, and in arresting the progress of typhoid fever. Dr. Drouet does not hesitate to say that, with this remedy at hand, no one need suffer from typhoid fever unless he wish to do so. He has had no experience of yellow fever, but he suggests that this disease may also be cured by the application of collodion over the abdomen and over the liver. Those who know anything of the natural history of disease on the one hand, and of the natural history of enthusiasm on the other, will have little difficulty in forming a correct judgment upon these statements of Dr. Arsène Drouet.

DISEASES FROM IRRITATING DUST.

MR. LIDDLE, Medical Officer of Health for the Whitechapel District, says in his last Report: "Mr. Sequeira, a most painstaking and industrious medical officer of the Union, who had under his care, in 1867, no less than 6,323 sick paupers, has directed my attention to a subject of great importance as affecting the health of a large class of labourers 'employed in certain warehouses in the docks and elsewhere in the district, in which dry goods are stored, especially tea, hemp, jute, indigo, and seeds.' Mr. Sequiera says that the irritating dust arising in these warehouses is a source of great suffering and mischief to the men employed therein, producing severe forms of affections of the lungs. Perhaps my having called public attention to this subject in the present Report will be sufficient to induce the dock proprietors and others to adopt such remedial means as will mitigate the sufferings of the men employed therein, either by fixing a fan or other mechanical contrivance, to drive the dust, which arises from the sorting or moving these dry goods, out of the building."

TRAINED MIDWIVES FOR THE ARMY.

WE understand that Dr. Sinclair, Professor of Midwifery in Trinity College Dublin, and an old Assistant-Surgeon of the Army, aware of the long felt want of properly trained midwives in the army, has voluntarily proposed to undertake the training of such women, soldiers' wives or others, belonging to the regiments in Ireland, and recommended by commanding officers. They will be required to attend at the lying-in wards of Sir Patrick Dun's Hospital, where they will acquire the necessary instruction. They will also be obliged to attend a course of lectures to be delivered by Dr. Sinclair. Their training will extend over six months, after which, if properly qualified, they will receive a certificate of efficiency free of all charge. The idea of educating regular midwives for the army is an excellent one; and, if successful, should be generally adopted in the army.

THE RELATION OF CONSUMPTION TO DRAINAGE.

IN his last Annual Report, Dr. Gibbon, the Medical Officer of Health for Holborn, makes the following remarks, from which it will be seen that he does not hold with the doctrine that improved drainage is followed by a diminished mortality from consumption.

"The ravages of the peculiar blight or deterioration of the blood, called tuberculosis, are so great, and entail such a prodigious loss of life and income upon the district, that in previous reports I have taken pains to explain its causes, and to point to the remedies required to arrest its ravages. The talented Medical Officer of Health for St. Giles's District has recently drawn attention to the fact, that the mortality from pulmonary consumption in several large provincial towns has been reduced since improvement has been effected in the drainage of the subsoil, and by the *post hoc propter hoc* argument he has inferred that these two facts stand in the relation of cause and effect. Before we can accept this theory as to the causation of consumption, it certainly requires better credentials than those given in the last Annual Report of the Medical Officer of the Privy Council. In contrasting the death-rate from phthisis in different towns, after an interval of thirty or forty years, it appears to me that Dr. Buchanan has not made sufficient allowance for an improved diagnosis of chest-diseases, which enables the practitioner to distinguish many fatal disorders of the lungs that were formerly ascribed to phthisis, *i.e.*, consumption, nor for the effects on the actual death-rate from consumption of the sanitary provisions of the Factory Acts, of an improved lodgment and dietary of the people. This is not the place to argue against this theory as to the causation of consumption; but I may observe that it breaks down when tested by a great and well ascertained fact of the disease. I allude to its much greater pressure on town than country populations. Thus, it is constantly found that, while the general mortality of a town rises from 30 to 60 per cent. above that of an equal population scattered over a country district, the deaths from consumption increase in the proportion of 200 to 400 per cent. For instance, it is found by the Registrar-General that, on an average of ten years, out of every 10,000 men living between the ages of 15 and 55 years, 49.6 have annually died of this one tubercular disease in Holborn, 56.1 in St. Giles's, 27.2 in Lewisham, and only 15.3 and 14.0 in the country district of Sheppey, Kent, and Ongar, Essex. In other words, it seems that, whilst the general mortality from all causes, at all ages, of Holborn is 59 per cent. above that of Lewisham, the deaths from consumption among males, aged 15 to 55, is 81 per cent. above those of Lewisham; or, whilst the general mortality of Holborn is 36 per cent. above that of the Sheppey District, its consumption death-rate of males between certain ages is enhanced in the proportion of 226 per cent. Now, it will surely be admitted that the subsoil of London, especially that of the Holborn District, is drier and better drained than that of Sheppey, Ongar, and most other country districts, so that, if Dr. Buchanan's theory were true, we ought to have had a less, instead of a much greater, number of deaths from consumption. Believing, as I do, that our excessive mortality from consumption and other tubercular diseases is caused by the continuous inhalation of impure air and the prolonged exclusion from the healing virtues of the sunlight, I have before directed your attention to the sort of measures necessary to reduce it. Those have been—1. An improved ventilation of dwelling-rooms. 2. The mitigation of the smoke nuisance, which directly intercepts the sun's rays, and destroys vegetation to a considerable extent within the district, which vegetation is Nature's own great provision for filtering and purifying the air we breathe. 3. The provision of public walks or gardens of convenient access to the poorer classes, where they may be allured from dark courts and alleys to take exercise in the open air. The first two measures are being gradually carried out; as to the third and most important, it is satisfactory to know that your Board have authorised counsel's opinion to be taken as to the powers of the legal trustees of one of the three old burial grounds in the district to throw it open as a garden to the public. In case it is decided that they have no power to devote the said ground to such a sanitary purpose, I trust the legislature will pass an Act to authorise all disused cemeteries and churchyards, in the central portions of the metropolis, to be converted into public gardens. Such a measure would contribute not a little to the embellishment of London, and would add greatly to the health, comfort, and convenience of its inhabitants."

A GRATEFUL PATIENT.

BY the will of the late Honourable Mary Charlotte Bootle-Wilbraham, a legacy of £1,000 is bequeathed to William Lax, Esq., Surgeon, of Ormskirk, in token of gratitude for his skill and care in attending her through a dangerous illness in 1843.

THE UNIVERSITY OF PARIS AND FEMALE DOCTORS.

SOPHIA JEX BLAKE writes to the *Spectator* last week, and encloses a favourable letter received by her from the Minister of Public Instruction, Paris, in answer to inquiries whether she would be allowed to attend the medical school of the University and obtain the degree of Doctor of Medicine. One American lady has already passed her first examination for graduation.

MEDICINE AND AQUATICS.

THREE years ago, there was revived, in connection with the Post-Office, under the name of the Ino Rowing Club, a confraternity which had been in existence nearly half a century before. The club in question has, under the new *régime*, taken, as it were, a new lease of life, and bids fair to prove one of the most prominent among the numerous rowing clubs on the Thames. That exercises, such as rowing, cricket, and the like, tend much to promote health among the employed in the various Government departments, it would be idle to question; and hence it is to be regarded with no small satisfaction that the medical authorities at the Post-Office give their hearty support and approval to the Ino Rowing Club, the members of which now amount to upwards of two hundred. Dr. Waller Lewis, the principal medical officer at the Post-Office, has very liberally offered for annual competition a silver challenge cup, to be competed for by four-oared crews; the first of such contests to come off at Hammersmith on Saturday, September 5th, between three and five o'clock. Mr. Edmund Yates, the talented conductor of *Tinsley's Magazine*, has, in the absence of Dr. Waller Lewis from town, kindly undertaken to distribute the prizes, at the termination of the contest. It may be added that, about three months since, five presentation cups were given to the Ino Club by Mr. Edmund Lloyd, of the Medical Department of the Post-Office, and by Dr. Bradford and three other postal district medical officers; and, on the occasion referred to, a most spirited competition for the cups took place.

REPORT
ON
THE METROPOLITAN HOSPITALS.

II.—THE WESTMINSTER HOSPITAL.

THE Westminster Hospital is one of the older hospitals in London, situated in a poor and densely peopled district, comprising the united parishes of St. Margaret and St. John the Evangelist, and part of the parishes of Lambeth and St. George's Hanover Square, with an aggregate population of about one hundred thousand. The old hospital was built in 1819, and the present hospital in 1834. From its commencement up to December 31st, 1867, it has relieved about 750,000 patients, and the number appears to be rapidly on the increase.

The hospital faces Westminster Abbey. The building forms three sides of a square; the wings, one on each side of the central block, running back and enclosing the Medical School. The hospital is entered by a handsome portico in the centre of the building; and the hall is large, and well ventilated. The wards are situated in the wings, the central part of the building being mostly occupied by the other departments. The out-patient rooms, which we first visited, are in the cellars of the hospital, and adjoin the large and excellent kitchen and steward's department. They are small and dingy rooms, poorly furnished, but clean. There is but one entrance to the hospital; so that all out-patients enter and pass through the hall—a plan which is, for apparent reasons, a bad one, and which, by having an out-patient entrance, might be easily obviated. But the evil is rendered greater by the system of out-patient one-day relief in vogue at the hospital. Out-patients, without a letter of recommendation must, to obtain relief for *one day*, attend in the entrance-hall (which is thus made a waiting-room) between twelve and one, for a letter to the assistant-physician or assistant-surgeon of the day, when the name and address of the patient are entered in a book kept for the purpose by the librarian. This system of one-day letters is, we believe, peculiar to the Westminster Hospital; but it fails in its purpose. The mere fact of entering the patient's name one day is practically little check to his return next day; and the same patient may thus swell the list of patients relieved, in a manner unfavourably to the returns of other hospitals, go the round several times of the different assistant-physicians or assistant-surgeons, and probably obtain little advantage from the variety of treatment he has to undergo; and, besides, the officers' time and energy are wasted. The assistant-physicians and assistant-surgeons are allowed, within certain limits, to make the more serious cases regular out-patients; and, as a large proportion of the cases most likely to be benefited are obtained from these casual patients, it is to be regretted, if this system is continued, that fuller powers are not given to the staff in this matter. There is no regular obstetric out-patient practice; and those cases requiring the advice of the obstetric physician have to attend in his ward until his arrival. The prescriptions for the regular out-patients are written on the governors' letters; and on these letters are the names and addresses of the staff of the hospital. We have frequently given our reasons for objecting to the addresses of the members of the staff appearing thus, and we merely now state that this custom is carried out at the Westminster Hospital. We may mention that one member of the staff told us that he had been frequently annoyed by patients coming to his house instead of to the hospital. There are no out-patient instruments, and no arrangement, we believe, for ophthalmoscopical investigation. The diseases of the regular out-patients are, we understand, not registered. The letters are, however, we understand, kept for reference.

We next visited the *post mortem* room. It lies behind the hospital, forming part of the Medical School. It is badly found, and not supplied as it ought to be with the necessaries for conducting autopsies properly. The *post mortem* examinations are performed by the medical registrar; and the out-patient porter assists—an arrangement obviously a bad one, but which, we believe, is to be changed. We were frequently informed that several of the managers discountenanced *post mortem* examinations, and put difficulties in the way of performing them. If this is correct, they cannot fail to see the damaging effect it must have on the medical school attached to the hospital.

The dispensary adjoining the out-patient rooms is dark, small, and with far too little room for the ordinary purposes of a hospital with so large a number of patients. It is, however, kept in good order; and the dispenser, with his two assistants, manages to make on the premises most preparations in use at the hospital.

The surgery is on the ground-floor. It opens off the lobby; it is of fair size, and lofty, but looks as if it had not been cleaned out for a considerable time. The furniture is of the poorest and most antiquated description, and much of it in want of repair. A quantity of rubbish, broken brushes, etc., lay in one corner; and, in a sort of cupboard, the dirty cast-off bandages, which are removed only once a week. There is a very insufficient attempt to keep the place tidy. Cases of diarrhœa, accidents, and other urgent cases, are seen here by the house-physician, house-surgeon, or assistant house-surgeon, as the case may be. These cases are entered by the porter, much at his discretion, apparently, as may be seen by the following extracts, which we found within a few pages. We are sorry however, to say, that a similar plan is adopted at King's College Hospital. It is certainly not creditable to the hospital that the casual book, shown to strangers for reference, should contain such an exhibition:—"Ingery to sholder," "Ann temp to drown," "Cherey stone in noss," "Reptured case," "Broken coler bon," "Steal in the eye," "Bursed a veien," "Brused hipp," "Swaled a pine," "Ingery to thye," "Tow out." "D", we were informed, meant diarrhœa; and "C", casualty; but the nature of the casualty depended, apparently, upon the porter and his memory. The names were frequently entered, but not the disease; and some of the cases, we were led to believe, were not entered at all. A second register, however, is kept by the house-surgeon; but, so far as we could ascertain, it appears to be a modified copy of the porter's book. It is not likely to be correct, especially as it is filled up periodically. We were unable to gather certain statistics which we wished to obtain from the book. It would surely save trouble, and ensure correctness, if the house-physician or house-surgeon who saw the case immediately entered it in the surgery book, as is done at most well-managed hospitals.

The wards are situated in the wings—the male on one side, and the female on the other. They are nineteen in number; five on the ground-floor, six on the first floor, and seven on the second floor—eight medical, and ten surgical. The wards vary in size, and are smaller than those in most large London hospitals. They are lofty, not overcrowded, and are thoroughly well ventilated. Indeed, the ventilation throughout the whole hospital is as perfect as any in London. The excellence of the ventilation is largely due to the use of warm air-currents, passing upwards, and carrying the close air of the wards through ventilators in the ceiling. The wards are clean and well arranged, with one or two exceptions. They are, however, much in want of fresh paint; as is, indeed, the whole hospital, which has not seen the paint-brush for twenty years. The most glaring fault is the water-closet being *in* the ward. It is simply a large closed box, built in one corner, against one of the windows. Were it not for the excellent ventilation, these closets would be an intolerable nuisance. As it is, they did not appear to us at the time of our visits, in warm weather, when every window was open, to taint the air. They must, however, be at times offensive, as they were deprecated by every one. A small scullery for each ward is built alongside the closet. The governors, we are told, have frequently spoken of building proper water-closets, but grudge the expense. With these exceptions, the wards are clean and well found; and the linen is good, and kept in excellent repair. A neat box is supplied to each patient, to contain his clothes; and shelves above each bed, for crockery, etc. Pictures adorn the walls; and there is an air of comfort in all, but more especially in the ward for incurables. There are two special wards, male and female, on the ground-floor, capable of containing two beds each, for cases of delirium tremens, small-pox, etc.

There is no garden or ground for patients. Those attached to the hospital requiring exercise are allowed, however, to walk in St. James's Park.

There are no bath-rooms for the wards. Patients, unless very ill, have to descend to the cellars, where a dark, dismal, and most uncomfortable place, a mere apology for a bath-room, has been furnished with a plunge- and shower-bath. For those too ill to visit this place, portable baths are wheeled into the wards; and there is a good supply of hot and cold water to each floor.

The sisters or head nurses are untidy, and their dresses often shabby and torn. There is no regulation as to dress. Some of the sisters are excellent; others inferior to the usual class of paid sisters in London. They have each a small day-room boarded off from the ward, in which they take their meals. They sleep in dormitories in another part of the building. These dormitories are certainly not so comfortable as the wards; they are poorly furnished, and supplied with only bare necessaries, many of which are in want of renewal or repair. Each sister has charge of several wards, containing together from twenty-two to thirty-five beds (with one exception, forty-three beds); and is responsible for the management of the wards and care of the patients under her. The ordinary or under nurses are still more untidy, and shabbily dressed, and are in too many cases ignorant of what real nursing is. There are no probationers, and many of those appointed to full duty in the wards are persons who know nothing whatever of nursing. They dine and cook in the wards; and their sleeping accommodation is similar to, but worse than, that of the sisters. The rooms are bare; the furniture very shabby, and in want of repair. On ascending the flight of stairs to the nurses' dormitories on the top floor, we passed, half-way up, the water-closets for the use of the sisters and nurses. They are open at the top, and there is no window or other ventilator in their neighbourhood. The work of the nurses is too great, and is incompatible with good nursing. Each sister, with twenty-two to thirty-three beds under her charge, has only one day- and one night-nurse to assist. There is one exception to this, as, on the top floor of forty-three beds, there are two day- and two night-nurses; but this is not sufficient. Although a woman *scrubs* the wards once a week, the nurse has to *wash* them, the sculleries, closets, clothes-boxes, lockers, etc., and keep the fire-places clean. In urgent cases, special nurses are, of course, provided; and, we understand, always when ordered by the medical officers. In addition to these, there is usually one lady nurse during the day in the hospital, or perhaps more (there was one at our visits). These ladies belong to societies, and have permission from the Weekly Board to assist and gain what experience they can in the wards, and under the superintendence of the matron. They generally remain three months, and are willing to render any aid in their power. There is no night-superintendent of nursing, and therefore no means of knowing whether the night nurses attend to their duties or not.

If we compare the nursing at this hospital with that at some of the other London hospitals, we find, by reference to an admirable table recently prepared by Dr. Gibb of the Newcastle Infirmary, that the nurse at Westminster has a larger number of patients under her charge than at any other hospital. At the Middlesex Hospital, there is 1 nurse to every $3\frac{53}{59}$ patients; at King's College Hospital, 1 to $4\frac{4}{34}$; at the London, 1 to $4\frac{73}{78}$; at Charing Cross, 1 to 5; at St Mary's, 1 to $5\frac{18}{25}$; at St. George's, 1 to $5\frac{19}{55}$; at Guy's, 1 to $5\frac{30}{94}$; whereas at Westminster there is only 1 nurse to $7\frac{3}{21}$ patients, or double that of Middlesex Hospital.

In addition to the unusually large number of patients under their charge, the nurses here, as we just noticed, have to give a considerable amount of their time to cleansing the wards; for, although there is a special *scrubber*, still they have to *wash* the wards and keep them clean at other times, which is not the rule in the hospitals we have mentioned, at least to the same extent, except at Guy's, where the under nurses do most of the scrubbing, but where, again, each nurse has fewer patients to attend to.

The expenditure on nursing at the Westminster Hospital is, therefore, necessarily lower than at other hospitals of the same or even smaller size. The total cost, including extra nurses, servants, scourer, porters, etc., is £945 : 6 : 7; whereas at Charing Cross Hospital, with only about two-thirds of the number of patients, and excluding the board of servants, it amounts to £955 : 14 : 3. At King's College Hospital and St. Mary's Hospital, with about the same daily average of patients, it amounts to £2,684 in the former, and £2,177 : 2 : 1 in the latter. It will thus be seen that the cost of nursing at the Westminster Hospital must, under any circumstances, be inferior to what is recognised by other hospitals to be sufficient; and, from what we have stated as to their education and treatment, it is not surprising.

The regulation diet-table is not on so liberal a scale as usual in London hospitals. This is especially noticeable as regards "extras", which should be ordered with full and middle diets, if required, and not restricted to particular diets, as at this hospital. We believe, however, there are exceptions to this rule. Of course, beer, wine and spirits can be ordered with any diet.

The hospital is managed by Governors at the Quarterly or Special Boards, by a House Committee, a Medical Committee, and an Estates Committee. The House Committee consists of the President, Vice-Presidents, and Treasurers, *ex officio*, with thirty to forty Governors. Amongst these are six members of the medical staff of the hospital. This Committee meets weekly. The Medical Committee consists of "the medical officers *ex officio*," and several other medical gentlemen connected with or interested in the hospital. When this important Committee meets, we cannot say. We were unable to ascertain when it had last met, but certainly not within the remembrance of several members of the staff. Why this state of things? It is needless to say that this explains much that is defective in the hospital management. We understand that a Provisional Committee of the medical staff have of late met frequently and suggested numerous improvements which are likely to be adopted by the Governors. The Medical Committee is supposed to supervise and inspect the drug department; but its meetings, as we have said, are few and far between. Still, we are informed, that members of the House Committee inspect the drug book and the dispensary. There is, in addition, an excellent dispenser, a qualified medical man, who appears to manage this department in a satisfactory manner. The resident medical staff consists of a house-physician and house-surgeon, both qualified. An assistant house-surgeon, a senior student, remains in the hospital from 10 A.M. to 7 P.M., and assists the house-surgeon in the wards and surgery. There is no resident apothecary or medical officer to superintent the medical management of the hospital. The resident officers are, we are sure, not sufficiently numerous to do the work of the hospital allotted to them satisfactorily. We failed to discover that rules for their general course of duty are printed. The residents are chosen by examination from among the qualified students, and are supplied with excellent rooms and commons free of expense.

As to the general financial management, we will merely add a few words. It seems to be most economical—we may say, almost parsimonious; for nearly every item of the expenditure of the Westminster Hospital is much below that in other London hospitals equally well managed, and of the same or even smaller size. In the aggregate, this is fairly shown by a comparison of the average cost of each bed actually occupied in the various other hospitals, which we obtained from the admirable table of hospital statistics, prepared with a commentary, and presented to the Weekly Board of Governors of St. Mary's Hospital, by Mr. J. G. Wilkinson, secretary to that hospital. It varies from £62 : 4 : 11 at the London Hospital, to £46 : 2 : 9 at Guy's Hospital; whereas at Westminster it only amounts to £39 : 12 : 6. If, again, we take the average cost of each in-patient, we find a similar state of matters. It varies from £6 : 7 : 4 at the Middlesex Hospital, to £4 : 1 : 2 at St. George's Hospital; whereas at Westminster each patient costs only £3 : 8 : 5.

The general deduction from the inspection which we have made of the hospital is, that it is doing a great work, and doing it in a manner worthy of admiration, but with insufficient funds. The medical staff and paid officers are, we believe, themselves fully conscious of the deficiencies which we have pointed out. We have done so with a desire to be useful. It ought certainly to be known to the public that, at the Westminster Hospital, economy is strained to the extent of mischievous parsimony, from the want of funds. The beds are nominally 191; actually, the daily average of patients is at least forty less; but even for these the income is inadequate to afford that liberal dietary, that perfect nursing and completeness of accessory arrangements, which it is the pride of our London hospitals to aim at supplying, and the glory of our nation to support by the efforts of voluntary charity.

MODERN ANÆSTHETICS.

Dr. Evans on Nitrous Oxide.

SIR,—When in London early in April last, I spoke to several dentists and surgeons of the anæsthetic properties of nitrous oxide gas, and of some of the advantages which it possessed over all the anæsthetics now in general use. I subsequently personally administered the gas at the London Dental and Ophthalmic Hospitals. The results then obtained were satisfactory to myself, and I believe all who were present when the gas was given, were convinced that every thing which I had claimed for it, was established so far as it could be by a limited number of exhibitions.

Returning, however, to Paris almost immediately, I was unaware until quite recently of the very extended discussion to which these experimental trials had given rise in English medical and surgical journals. I shall simply present in this communication a few essential facts, with a brief reply to two or three *ex cathedrâ* assertions.

It is now five years since the revival in the United States of the use of protoxide of nitrogen as an anæsthetic especially advantageous in dental operations. Slowly it not only established for itself a place among recognised anæsthetics, but has more recently been generally accepted by the dentists throughout that country, as the most available and safest known anæsthetic. Many of those dentists show lists containing from ten to twenty-five thousand names of persons who have been rendered insensible to pain by the inhalation of this gas. I furthermore possess evidence, which warrants me in asserting that at the present time protoxide of nitrogen is employed in the United States more extensively as an anæsthetic than any other agent whatsoever.

The reasons for this very general favour are:—1. As compared with other anæsthetics, its inhalation is more easily accomplished, and is less disagreeable to the patient. 2. Its effects are obtained most rapidly. 3. The insensibility to pain produced by it is complete. 4. The subject returns to his normal condition with the greatest rapidity, with seldom or never any unpleasant after-consequences. 5. After more than one hundred thousand administrations of the gas, it had caused no authenticated death of any human being; while in the presence of its novelty, prejudice, and the customary looseness of popular statement, but two deaths had even been attributed to it.

These points are all capital in favour of nitrous oxide. Objections can, however, be raised against its use; it is troublesome to make; it is inconvenient to carry about; it is transient in its effects, etc. These objections I may consider when I have the time; to-day, I am only concerned with another, apparently a most serious and formidable one—one which threatens to prejudice at the outset the medical profession of Great Britain against the employment of the gas. Protoxide of nitrogen has been denied to be an anæsthetic—has been asserted to be simply an asphyxiating agent, and as a corollary to this, on the slenderest theoretical grounds, and in the face of the most indisputable facts to the contrary, has been declared to be the "most dangerous" of all the agents used for the purpose of producing insensibility to pain.

It is very evident that the persons who have made these assertions have had no proper opportunities for examining the subject upon which they speak. So far as they have experimented with the gas, it has apparently been upon the lower animals, and not upon man. Now, without attempting to throw the least discredit upon efforts to determine the physiological or toxicological actions of substances by experiments upon animals, it must be remembered that, whatever may be the facts developed, if similar experiments, conducted upon men, yield contrary results, the facts derived from experiments upon animals cease to have any value, so far as the special point at issue is concerned. Experimenters may have found it difficult to produce anæsthesia with protoxide of nitrogen upon certain animals—especially birds—without oftentimes producing death. This would only prove that certain amimals are speedily killed by the inhalation of protoxide of nitrogen—and nothing else whatever. The inference that identical effects would be produced upon other classes of animals—upon man—could only be warranted in the absence of all experimental proof. Now, this experimental proof of the action of protoxide of nitrogen upon man, is not wanting. Where the gas has been given to animals once, it has been given to men a hundred times, and with invariably the same result—a demonstration of the great practical fact that anæsthesia may be produced upon men by inhaling nitrous oxide gas without danger.

Are there any substantial grounds for believing that protoxide of nitrogen, or nitrous oxide, occasions insensibility by simply causing asphyxia? I think not. What are the facts as regards the comparative actions of the two gases—carbonic acid and nitrous oxide? 1. I am not aware that carbonic acid gas, when inhaled, produces a feeling of exhilaration and intoxication—nitrous oxide does. 2. A person having inhaled carbonic acid gas almost invariably suffers thereafter from headache, lassitude, etc. The inhalation of nitrous oxide gas is as invariably followed by *none* of these sequences. 3. When nitrous oxide gas is inhaled, carbonic acid gas is *exhaled more abundantly* than when common atmospheric air is inhaled. 4. An animal, immersed in an atmosphere of nitrous oxide gas, will become insensible and die *in a very much shorter time* than when immersed in an atmosphere of carbonic acid gas. 5. When animals have been killed by carbonic acid gas, the lungs are generally found collapsed; when killed by nitrous oxide gas, they are generally found *not* collapsed. 6. In animals killed by carbonic acid, the blood is very dark; the venous congestion general; the liver in particular is gorged with blood, and strikingly black. In those killed by nitrous oxide, the blood is less dark, the congestion less general, the lungs brighter, and the liver quite normal in appearance.

That when nitrous oxide is respired, carbonic acid may be found in the blood *incidentally*, in excess of its normal proportion, is very probable. But as yet, I have seen no evidence whatever sufficient to support the opinion that its presence, under these circumstances, is the immediate cause of either anæsthesia or death. The extent to which nitrous oxide, in common with most anæsthetics, may owe its peculiar effects to the introduction or the development within the animal system of a certain or certain carbon compounds, is an unsettled question, the final solution of which can in no way influence the justice of my position.

I believe that nitrous oxide gas possesses, in common with many other well-known substances, a property which is stimulating, intoxicating, or anæsthetic, according to the extent to which the animal economy is subjected to its influence. I believe it to be as truly an anæsthetic *per se* as chloroform. The opponents of nitrous oxide declare that "it is not an anæsthetic in any true sense of the word; that its effects are identical with those of poisoning by carbonic acid gas." I cannot see how the logical conclusion to be drawn from these statements can be what these writers have evidently intended it should be. So far from proving nitrous oxide a valueless and dangerous anæsthetic agent, they would simply prove that carbonic acid gas itself is a valuable and safe anæsthetic agent. So long as asphyxia—carbonic acid gas—is shewn to be controlable, to be an effective means for procuring insensibility to pain, and to be unattended by fatal, serious, or even disagreeable consequences, there can be in the nature of the case no reason for regarding it with more disfavour than other anæsthetics. This must be accepted as a general principle. M. Ozanam has experimented largely with carbonic acid gas, and as a result of his investigations, affirms that, carbonic acid gas is *l'anesthésique le plus sûr, le plus simple, et le plus inoffensif.*

That ether and chloroform are to be at once banished from every branch of surgical practice, by the apparition of the new candidate for popular favour, is not to be expected. Each anæsthetic has distinctive properties, which will probably always make it more or less suitable than the others for any given case. I trust that time and experience may overcome many of the special objections which have been offered against the general use of the gas. In any event I shall feel fully satisfied with what I have done, in directing the attention of my fellow practitioners in England to the anæsthetic properties of protoxide of nitrogen, should the investigations which it is now undergoing establish its value as a contribution to the resources of the dentist and surgeon, as well as the place, which it is rightfully entitled to hold among those agencies which possess the power of abolishing sensibility to pain.

I am, etc., THOMAS W. EVANS.

15, Rue de la Paix, Paris, 1868.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XXIII.

Molluscoida.

Ascidioida, or	Brachiopoda
Tunicata	Polyzoa.

The Lamellibranchiata are almost all diœcious, and each male and female has a ramified sexual gland, which opens close to the organ of Bojanus. Some few genera are hermaphrodite; and each Oyster is said to be male at one season of the year and female at another.

The embryo almost always swims about by means of a ciliated disc, the velum; but in Anodon this is not the case, the embryo (as Mr. Pollock discovered, though he never published his observations) being pseudo-parasitic. In the Branchio-gasteropoda, the embryo has generally a bilobed ciliated velum. The Whelk deposits its eggs in small cases, "rudimental capsules", bundles of which are amongst the common objects of our shores. Though many ova are placed in each of these capsules, yet only three or four issue forth; those first developed feeding on their potential brothers and sisters. Probably the prey really consists but of unimpregnated ova, the substance of which is thus made available for the preservation of the species. Such a phenomenon is seen when Frog's-spawn is artificially fecundated; the young tadpoles greedily appropriating such ova as do not happen to have been fertilised.

The larvæ of the Pteropoda are at first like those of the Branchio-gasteropoda; but those of some of the naked forms became surrounded by hoops of cilia, thus reminding us of young Holuthuriæ. The Cephalopoda undergo no metamorphosis; they are diœcious, as also are very many of the Branchio-gasteropoda, but the other molluscs are hermaphrodite.

The generative organs of the Pulmonata are very complex, with an "ovo-testis", a "tongue-shaped" gland, a spermatheca, a penis, and a sack which contains the *spiculum amoris*, with which each individual is said to puncture the other before commencing that process of reciprocal impregnation which goes on these animals, in spite of the possession of an ovo-testis by each.

In the genus Argonauta (a Cephalopod), a very peculiar process, termed "hectocotylisation", takes place, which has only been fully elucidated of late. The male is much smaller than the female; and in the conjugal embrace leaves behind one of his arms (richly furnished with spermatozoa) in the pallial chamber of the female. The arm, when first found, was supposed to be a parasite, and was termed hectocotylus. Some slight modification of the arms marks the male sex in all other Cephalopods.

The Molluscoida all have an alimentary canal distinct from the body cavity. The mouth is, almost always, surrounded by ciliated tentacles; the heart is unilocular or absent; the nervous system generally consists of but a single ganglion, and never presents the special structure before described as existing in the Mollusca; there is never a right and left shell, a foot, or an odontophore. The flexure of the intestine is hæmal in the Ascidioida; in the others it is neural. The Brachiopoda and Polyzoa are easily understood, but the Ascidioida are very peculiar.

All the Polyzoa live in compound masses, and are very small in size, each Polyzoon occupying a little cell. The disc (round the mouth) which supports the ciliated tentacles is sometimes produced into two horn-like processes. There is an anus, but there is no heart. "Bird's-head processes" and vibracents are sometimes present, reminding us of the pedicellariæ of Echinoderms.

The Brachiopoda are simple animals, each enclosed in a (dorsal and ventral) bivalve shell, termed a "lamp-shell", from a resemblance borne to an ancient classical lamp. Long arms supporting ciliated tentacles resemble the horn-like processes above-mentioned of some Polyzoa. The intestine, in most, ends blindly. What have been called hearts are the outlets of ramifying canals, which have been described as parts of the vascular system, but which are probably renal, and almost certainly give exit to the generative products. The sexes are in distinct individuals.

The Ascidioida are perhaps the most anomalous group of all animals, and present most varied forms. A common species has the appearance of a bottle with two necks; the mouth of one being the oral aperture, that of the other the atrial aperture. The body is enclosed in a tough integument, largely hardened by pure cellulose. This, however, may be produced by process of "breaking down", instead of the "building up" process of the Vegetable Kingdom. The oral aperture leads into a large pharyngeal cavity, at the bottom of which the alimentary canal opens. This canal terminates by an anus in the atrial chamber, the outlet of which is the atrial aperture before mentioned. This atrial chamber extends on each side nearly round the large pharynx. Perforations extend through from this pharynx into the extended atrial chamber on each side of it, and the margins of the perforations are ciliated. By means of these cilia, currents are produced; the water passing in at the oral aperture into the pharynx, thence through the perforations into the atrial chamber, and ultimately out at the atrial aperture.

REPORT OF THE COMMITTEE ON THE OBSERVATION AND REGISTRATION OF DISEASE.

Read at Oxford, Aug. 6th, 1868.

At a meeting of the Association, held at Dublin on Aug. 9th, 1867, the form of Return proposed by this Committee for the Uniform Registration of Disease was considered and adopted by the members present.

Copies of this form of return were forwarded to different gentlemen interested in the subject; and the Committee are glad to be able to report that, in January 1868, the Registration of Disease occurring in public practice was commenced upon the same plan, and with the same list of diseases, at the following places: Manchester and Salford, under the direction of the Sanitary Association; St. Marylebone, by Dr. Whitmore; Birmingham, by Dr. Alfred Hill; and Newcastle-upon-Tyne, by the Northumberland and Durham Medical Society. These returns have been continued to the present time, every month at St. Marylebone, and every week at the other places.

At the same meeting of the Association, Dr. Farr's proposal for the appointment of Registration Medical Officers was approved, and a Committee was appointed to support it. It is greatly to be desired that this important aid to the correct registration of both disease and deaths should continue to receive the support of the British Medical Association.

Cattle Disease in America.—A serious disease among cattle, says the American correspondent of the *Standard*, has made its appearance in nearly all the Western States, at the great cattle yards, as well as in New York and Rhode Island. It is traceable, in all cases, to animals brought from Texas, which have infected droves of Northern and Western cattle. Mr. John Gamgee, who has resided in the States since last year, says that the disease is spread by the excreta of Texas cattle, and is due to the feeding by the cattle upon a peculiar plant. Mr. Gamgee asserts that the disease does not affect the animals feeding upon this plant, but only others with which they may be brought in contact. But many drovers say that the disease is due to the *carapato*, an insect of a greenish colour, and about the size of a finger-nail. The carapatos bury themselves in the flesh wherever the skin offers least resistance; on the parts covered by the thicker skin, however, they swarm by thousands. Another theory is that the affection is due to the fever bred in the animals in their long journeys, both by railway and across the plains and prairies, without water. Many of the droves received in New York are kept forty-eight hours on the passage from the West without water. Active efforts are made to check the pest. The disease is very fatal, killing more than half the cattle attacked.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

SECTION MEETINGS.

B. Physiology.—President, Professor Rolleston, M.D., F.R.S.; Secretaries, W. S. Church, M.A., M.B., and Professor Beale, F.R.S.

The Function of the Peroneus Longus. By Dr. Duchenne de Boulogne.—At the close of the Physiological Section on August 7th, Dr. Duchenne (de Boulogne) gave, on the invitation of Dr. Acland and Dr. Rolleston, a description of the functions of the muscles which perform the most important part in standing and walking—the peroneus longus, and its antagonist or moderator, the tibialis anticus. Following out the wise precept of Galen, that the anatomy of the dead should lead us to the anatomy of the living—in other words, that anatomy is inseparable from physiology—he commenced by describing the principal anatomical arrangements of the articulations of the foot and of the tendinous attachments, a knowledge of which allows the complicated mechanism of the action of the peroneus longus and tiabialis anticus to be understood. He pointed out especially, that anatomists have underrated the importance, in a physiological point of view, of the inferior attachment of the tibialis anticus to the first metatarsal bone; inasmuch as they have stated that this attachment is only an expansion, and sometimes absent, and that the real tendinous attachment of the muscle is to the tubercle of the first cuneiform bone. He shewed, by means of anatomical specimens, that the tendon of the tibialis anticus bifurcates to become attached at least as strongly to the first metatarsal as to the first cuneiform bone; and that, without this arrangement, the muscle could not be the moderator or antagonist of the peroneus longus; but that there would be an exaggeration of the plantar arch, with subluxation of the first metatarsal bone on the first cuneiform. Passing then to the physiological and experimental part of his demonstration, M. Duchenne (de Boulogne) shewed the proper action of the peroneus longus and tibialis anticus, by causing contraction of these muscles separately (by localised Faradisation) in a man aged from 30 to 35 years; and he shewed on a limb, articulated with springs arranged so as to allow the natural movements of the foot to be imitated, the series of numerous movements produced by each of these muscles. These experiments, however, he observed, could not be sufficient for the solution of the physiological problem which formed the principal part of his discourse—the functions of the peroneus longus. In fact, isolated action of the muscles does not exist in Nature; it is only manifested in certain pathological conditions, and can only produce deformity. In order to arrive at a knowledge of the functions of the muscles, anatomical study, and electro-muscular experiment on the living, must be aided by clinical observation. Paralysis of a muscle, by shewing the functional disturbances which arise from it, in fact, makes us acquainted with the part which the muscle fulfils in the common action. Thus, paralysis of the peroneus longus has shewn the importance of the synergetic action of that muscle in standing and walking. It has shewn, also, that this muscle alone depresses powerfully the submetatarsal projection which, when in walking the heel is raised from the ground, becomes, so to speak, the anterior heel and supports the weight of the body; and that the foot becomes flat, through the predominance of the tonic force of the tibialis anticus, which tends to efface the plantar arch; and that then the foot assumes the position characteristic of valgus, and becomes painful. The subject was illustrated by means of plaster casts of the feet of subjects affected with paralysis or with contraction of the peroneus longus.

E. Public Medicine.—President, John Simon, F.R.S.; Secretaries J. E. Morgan, M.A., M.D., and T. J. Dyke, F.R.C.S.

The Professional Aspect of Club Practice. By William Ogle, M.D.—He maintained that, if the profession were true to its calling, it would repudiate club-practice (as at present conducted) altogether; not on the commercial ground (however tenable) of small pay, but on the higher professional ground of the system itself being inefficient. Then, instead of club-doctors striking for higher pay, and combining against all who will not support them in their effort, they would rather look to an organisation somewhat similar to the provident plan which has already been worked with a certain measure of success at Coventry, Derby, Northampton, and elsewhere, but without restriction to any particular class of persons—patients or doctors. By restricting the agency to the class of patients just above pauperism, certain objectionable professional restrictions become necessary, and the effort, as a whole, suffers in regard to its efficiency to the same extent. This consequence is inevitable. Whereas, if the provident principle, or, as Dr. Ogle put it from his professional standpoint, if the preventive principle be allowed full play, not only would a more thoroughly efficient scheme of medical aid be devised, but it would supply that great desideratum, after which so many medical men are striving—a recognised machinery for the registration of diseases, and for the collection of those vital statistics which now run to waste, and for all kinds of preventive measures. In this way, the break down of club-practice might be made to further the honour of the profession, instead of being, as now, a source of weakness and disgrace.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, MAY 22ND, 1868.

EDWARD H. GREENHOW, M.D., Treasurer, in the Chair.

REPORTS on Dr. HILLIER's case of Infantile Ascites, and on Dr. GREENHOW's case of Motor Asynergy, were read.

Dr. GAIRDNER (of Glasgow) drew attention to the complete loss of the power of maintaining the body in equilibrium, which is observed in patients suffering from motor asynergy as a characteristic feature by which it may be distinguished from most other allied affections, and especially from the general paralysis of the insane. In the last mentioned disease, he had observed that, even in advanced cases the power of equilibrium was maintained amid the wreck of every other motor function, whereas it was markedly impaired even in the earliest stages of ataxy.—Mr. HART commented on the absence in the two cases which had been communicated of the symptoms referable to the special senses, particularly those of sight and hearing. In his experience, inflammation of the optic nerve and hyperæmia, with or without hæmorrhage of the choroid, had occurred so constantly in the numerous cases of ataxy in which he had been asked to explore the eye ophthalmoscopically, that in the absence of these lesions he felt disposed to hesitate in assenting to the diagnosis to which Dr. Greenhow and the reporters had come; at all events, he thought the case admitted of a much more favourable prognosis than that which had been given.—Dr. BASTIAN agreed that, as the term locomotor ataxy was not used to denote a pathological entity but merely an aggregate of symptoms supposed to have a more or less constant relation to a special lesion of the spinal cord, the absence of one set of symptoms did not affect the interpretation of the rest.

Mr. HOLMES brought before the Society a case of Excision of both Elbows, shewing the good results of the operations. He always employed splints to support the arm after operation. He was of opinion that passive movements were not required if a sufficient amount of bone were taken away; and he decidedly held that the entire joint ought to be removed. Partial excision had, to his knowledge, been followed by unsatisfactory results, requiring even amputation.

Dr. HANDFIELD JONES narrated two cases. The first was a case of Myelitis supervening on concussion of the spine. The patient, a young man aged 23, had become paraplegic, six weeks after a fall on the perinæum. He was admitted nineteen weeks after the accident, and consequently after the first supervention of symptoms of myelitis, when there was almost complete paralysis of the lower limbs, both of motion and sensation. At first, ergot was given in ten-grain doses three times a day, while counterirritation by savin ointment applied to a blistered surface was used in the neighbourhood of the affected part. Subsequently corrosive sublimate was given for a considerable time in doses of one-thirty-second and one-sixteenth of a grain, and, finally, Faradisation. The patient left the hospital four months after admission. The case afforded evidence that a concussion which produces but little apparent damage at the time and for a varying period afterwards, may set up an insidiously advancing inflammation of the spinal cord, which may issue in irreparable mischief. In such cases success may be hoped for from prompt and judicious treatment, even under very discouraging circumstances. The second case was one of Hypertrophy of the Left Ventricle of the Heart, with Dilatation of the Right Auricle and Chronic Nephritis, the principal symptoms being præcordial pain, dyspnœa, and extreme feebleness of the pulse. The interest of the case lay in the signal benefit that appeared to result from the administration of digitalis, which manifested itself in the strengthening of the pulse, the diminution of dropsy, and the relief of the symptoms.

Dr. SANDERSON communicated observations illustrative of the condition of the circulation in Bright's Disease, and particularly of the increase of arterial pressure.

Mr. HART related a case of Aneurism at the Elbow treated by Flexion. A brief discussion ensued respecting the manner in which the cure was effected in this and in similar cases, in which Mr. Maunder, Mr. Bruce, and Mr. Hart took part.

Mr. CALLENDER briefly described an operation on a girl, aged 14, for the cure of Cleft Palate.

In adjourning the Society until October, Dr. GREENHOW said that he could not but greatly regret the unavoidable absence of the President, Sir Thomas Watson, who would undoubtedly have closed the session with some valedictory words replete with wisdom and good council regarding both its past and future proceedings. Although the duty of presiding over the meeting had devolved upon him at a moment's notice, he could not allow them to depart without offering the members his hearty congratulations upon the great—he might even say the unprecedented—success the Clinical Society had attained as regarded numbers; he might inform them that the Society already counted nearly two hundred members, who had, for the most part, come forward voluntarily to swell its ranks, a circumstance which plainly showed that the Clinical Society had but filled a vacant space and supplied a recognised want among metropolitan medical societies. As regarded communications, he was sure they would be admitted to have been, for the most part, possessed of a high order of merit; and he confidently expected that the forthcoming volume of *Transactions* would occupy a good position among its contemporaries. In the early days of the Society, however, the Council had, of course, been unable to insist too strictly that communications should be exactly of the desired character and pattern; but now that the Society was fairly launched, he felt assured that under the skilful government of its distinguished president and zealous secretaries, the next session would surpass the present, and that the Clinical Society would obtain as definite a position as was held by any other of the special medical societies of London. That it would, in fact, soon occupy in reference to clinical medicine and therapeutics, a similar position to that which had been so long and usefully held by the Pathological Society in reference to pathology and morbid anatomy. In order to do this, the purpose for which it had been founded must be kept in view, and in that case, he believed, to quote the eloquent words employed by the President at its inauguration, it would "hereafter be spoken of as a starting point of a vast and solid improvement in that which was our special office in the world—the scientific and intelligent exercise of the divine art of healing."

HARVEIAN SOCIETY OF LONDON.

THURSDAY, APRIL 2ND, 1868.

ERNEST HART, Esq., President, in the Chair.

PRACTICAL REMARKS ON THE TREATMENT OF SOME DISEASES OF THE GENITO-URINARY ORGANS.

BY W. F. TEEVAN, ESQ., B.A., F.R.C.S., ETC.

THE author divided the subject into four parts. 1, spermatorrhœa; 2, stricture of the urethra; 3, irritable bladder; 4, stone in the bladder. On this occasion, however, he could only notice the first two subjects. —Mr. TEEVAN related the various opinions regarding spermatorrhœa, to the effect that whilst it was recognised as a complaint *per se* in France, its existence in this country was almost ignored. According to M. Mercier, spermatorrhœa was a very common complaint, and resulted generally from, and was a symptom of, indigestion. Mr. Teevan went fully into the causation and pathology of spermatorrhœa as related to him personally by M. Mercier, and he related two well marked cases which had come under his notice, and in which the existence of true spermatorrhœa had been established by microscopical examination of the urine, showing that spermatozoa were passing, unconsciously to the patient, both in the day and night urine. The complaint was caused by one of the following usually. 1, indigestion; 2, local irritation of some sort; 3, masturbation; 4, excess *in coitu*. Spermatorrhœa often existed in cases of disease of the brain and spinal cord. The treatment of spermatorrhœa varied according to its cause. In indigestion, a cure would be effected by removing the dyspepsia and by local treatment—electricity and the use of mild injections of nitrate of silver—from five to ten grains to the ounce. If the involuntary loss of semen resulted from local irritation, that must be removed. If the spermatorrhœa was caused by excess *in coitu* or masturbation, the patient could be cured by large doses of the sesquichloride of iron—one to one and a half drachms three times a day, and by cold bathing. This latter remedy was, however, very powerful either for good or for evil, and ought not to be used unless there was well established reaction. Horse exercise, carriage exercise, and walking were all bad in cases of spermatorrhœa, as they caused determination of the blood to the genital organs. Gymnastics and rowing were the best kinds of exercise. Cauterisation was very rarely required in spermatorrhœa, and the best results followed the use of the bougie and mild injections of the nitrate of silver. Mr. Teevan then explained the causation and pathology of stricture of the urethra. No attention whatever had been paid in this country to the detection of stricture in its earliest stage. He showed how strictures might be recognised by the "bougie à boule" years before the generality of English surgeons could ascertain their existence. There are only two philosophical and surgical ways of treating stricture, either by gradual dilatation or by subcutaneous division. Most strictures of the urethra were best treated by the use of the "bougie Olivaire," which was first introduced into English hospital practice by Mr. Teevan some time ago. The instrument figured in the *Lancet*, in Sir Henry Thompson's lecture on stricture, as the "bougie à Boule" was the "bougie Olivaire; the former was for the detection of stricture, the latter for its treatment.—Dr. DRYSDALE was glad to find that Mr. Teevan had taken up the subject of spermatorrhœa, and trusted that the complaint would be rescued from the hands of ignorant quacks. There could be no doubt of the existence of spermatorrhœa, and he thought that it would often be found that, instead of its being merely a symptom of indigestion, it was a cause. He observed the author was not favourable to the treatment of stricture by immediate dilatation.—Dr. COCK asked what objections there were to immediate dilatation of strictures, and in what doses the author gave the sesquichloride of iron.—Mr. COULSON confirmed Mr. Teevan's praises of the "bougie à Boule" and the "bougie Olivaires," and said he was now often able to detect a stricture as the cause of gleet, whereas formerly he had often failed to cure that complaint, not being able to recognise its cause. He preferred the use of metal instruments in those cases where the stricture was old and cartilaginous.—Dr. CAMPS did not think that masturbation was nearly so common as supposed, and believed that spermatorrhœa was a rare complaint, and that the peculiar unnatural dreams to which Mr. Teevan had referred existed in other diseases.—Dr. GELSTON first became acquainted with the French bougie through Mr. Teevan, and he could quite bear out all that had been said of them.—A MEMBER stated that he had been much interested, and trusted that Mr. Teevan would, on a future occasion, give the Society the benefit of his observations on the latter two subjects, which he had not been able to touch on that evening.

READING PATHOLOGICAL SOCIETY.

MAY 6TH, 1868.

GEORGE MAY, Esq., in the Chair.

MR. G. MAY, jun., exhibited a Heart, with the following history. J. P., aged 54, consulted Mr. May on April 24th, complaining of having felt a burning constriction of the chest, which first commenced whilst he was walking hurriedly about three weeks previously. This pain had recurred at intervals, but always ceased as soon as he became quiet. Some general directions about diet and exercise were given, and he was taken home in a cab. The case was considered to be one of angina pectoris, no abnormal sound of the heart or lungs being detected; but the pulse was feeble, and the arcus senilis well marked. On the 25th, there was more freedom from pain, no exercise being taken; but on the 26th, after a quiet walk in the garden, a violent paroxysm followed, with pain for the first time, extending down the arms, and a sensation of impending death. The pain was relieved, but never entirely ceased. He died suddenly the following morning. A *post mortem* examination showed the walls of the heart to be thin and flabby. There was a firm fibrinous clot between the right ventricle and right auricle. The coronary arteries were not diseased. The lung was not congested. Mr. May remarked that there was no history in the case to lead to the suspicion of the formation of a clot in the heart; for the sounds of the heart were clear, though feeble. The air penetrated into the lungs, and the first symptoms occurred only three weeks ago.

Mr. HARRINSON had, five years ago, shown to the Society a Polypus Uteri removed from a lady thirty-five years of age. This returned several times; and the polypus he now showed was the thirteenth that had recurred in that period. The patient was now doing well, and only seemed to suffer from the continuous hæmorrhage. The uterus was now perfectly smooth to the touch.

Mr. IZOD narrated a case of Puerperal Convulsions, to illustrate two points: 1. The tolerance of chloroform, administered continuously for forty-eight hours; and 2. The benefit of nutrition by injections. The patient was in the seventh month of pregnancy. She was of a very excitable disposition, and had made up her mind that something was to happen to her during her pregnancy. On the day in question, she had been frightened by a narrow escape from collision when driving in a carriage. When seen, she was in a continuous series of convulsions. The uterus was contracting; the os was dilatable, but not sufficiently so to enable the presentation to be detected. The rectum was unloaded by an enema; ice was applied to the head, and mustard poultices to the legs. Chloroform was administered, and an enema of ergot of rye given. An accoucheur from London having been sent for, on his arrival he found matters in train for turning, which he did successfully. The patient remaining completely comatose, enemata of beef-tea were injected every two hours; and, at the end of forty-eight hours, she was able to take nourishment by the mouth. At one time during convalescence, paralysis of the arm was observed, but this only lasted a quarter of an hour; and the patient was now well. There was no albumen in the urine at any time.—Mr. MAY, sen., who had seen the patient in consultation, said that she was very anæmic. Her stomach had been exceedingly irritable, not retaining sufficient nourishment; and she had neglected her bowels; so that the rectum and part of the colon were filled with scybala. These circumstances, he considered, powerfully predisposed to convulsions. Bleeding had lately been highly extolled as a remedy for puerperal convulsions; but the anæmic condition of this lady rendered it palpably inadmissible. He remembered, when bleeding was the fashion, that it was not uncommon for patients to fall into violent convulsions after losing a certain amount of blood. The convulsions ceased each time chloroform was administered, and, under its influence, the os uteri dilated so as to prepare the way for turning.—Mr. WORKMAN had seen cases recover under either treatment. He used to bleed largely; and for many years the only case he lost was one in which he did not bleed. Lately, he had used chloroform in place of bleeding to some extent, even where there was albuminous urine; and with good results. In the case narrated by Mr. Izod, he should have given chloroform, and used Barnes's dilators to expedite delivery.—Dr. BARFORD referred to belladonna as having a power to restrain reflex action, and therefore likely to be useful. He had in one case administered a scruple of the extract with benefit by the rectum.—Mr. G. MAY considered the points to be attended to were: first, and most essentially, to find if there were any albumen in the urine; and, if there were, to bleed freely, and then give chloroform. Secondly, if no albumen were present, to determine whether the convulsions were due to anæmia or congestion of the brain. The treatment of the first condition would be chloroform, nutrition, and stimulants. In the latter case, he would bleed freely.—Mr. YOUNG had attended a healthy girl in convulsions, brought on, apparently, by eating a heavy dinner, after having undergone some excitement as a witness in a law-court. An emetic dislodged a large amount of undigested food, and the convulsions ceased.

Mr. MAY read a paper showing the Need of a Certain Quantity of Urine being eliminated. Mrs. J., a lady in middle life, left her residence in Somersetshire about ten years since, under an impression that it did not agree with her health, and came to reside in Reading. She was seriously indisposed, feeble, emaciated, and distressed with symptoms of gravel and stone. Her urine was turbid, and the quantity passed in twenty-four hours not more than three or four ounces. She had not taken more than this quantity of liquid daily for many months. This serious error was explained, and she was directed to drink daily from two to two and a half pints of fluid. She quickly regained health, and had not had any return of the renal symptoms. Mr. May observed that, though the importance of securing a regular elimination of certain effete matters from the system through the kidneys, and the solution of these in a sufficient quantity of fluid, was not unknown, it was probably not sufficiently attended to; and that the public were in general very ignorant on the subject. It was a question for serious consideration, if certain blood-diseases, such as gout, might not be prejudicially influenced by neglecting to enforce attention to this important law of the animal economy.—Dr. COWAN said that we must still bear in mind that a patient might void a large quantity of urine, but very little solid matter; but, when the quantity was so small, the kidneys might sustain damage.—Dr. BARFORD had a young lady under treatment who went three weeks without any action of the bowels, which could only be induced by four drops of croton-oil. If not relieved at that period, the urine became albuminous and loaded. She vomited urine, and afterwards blood.—Mr. G. MAY had a similar case, where no urine was passed for three days; and the patient then vomited urine freely, and afterwards blood. She could not take any food but milk. A flow of urine always followed the application of a mustard plaster to the loins; but the effect of that was wearing off.

Mr. WORKMAN gave some particulars of a case of Puerperal Fever which he had recently attended. The patient was a primipara, confined on April 20th. On the 25th, unfavourable symptoms manifested themselves. The next day, the milk and lochia were suppressed. The respirations were 40; the pulse 130; the skin burning. There was dulness on the left side. The tongue was furred and tremulous. From that date till May 1st, the respirations varied from 36 to 40, and the pulse from 120 to 130; and there was no change for the better. But, after that date, she convalesced favourably. This was the only case he remembered doing so, after so high a pulse for so long a time.

CORRESPONDENCE.

"HOW SHALL WE TREAT CHOLERA?"*

SIR,—In resuming the above subject, I beg to refer to my last letter in the JOURNAL, at the close of which I state: "In my next I shall consider the question—'Does cholera in all, or in any of its stages or forms, consist in, or depend upon, a blood-poison for its manifestation?'"

The solution of this question I consider to be of the greatest importance; because, so far as Dr. Johnson's theory is concerned, the existence of a specific blood-poison requiring to be eliminated is a *sine quâ non*. Let it be cholera-cathartine or aught else, a blood-poison of a specific nature is the basis of his theory; is the *fons et origo mali*, so far as the organism of man is concerned; is, in short, the *primum mobile* of the spasm of the minute branches of the pulmonary artery, of the muscular cramps, of the intestinal flux, and of all the phenomena comprehended in cholera, sporadic or epidemic. Now, by blood-poisoning or toxæmia is meant, that there is a certain liquid or aëriform matter introduced from without or generated *de novo* from within the area of the circulation; that it acts more or less the character of a ferment, increasing by cell or other form of genesis—giving rise to specific diseased action—and either terminating by exhaustion of its elements, by elimination, or by the death of the organism—in which event, it is usually followed by rapid decomposition of the blood and tissues—putridity.

I am well aware that a great deal can be said on both sides of this difficult question. Dr. Johnson has favoured us with a chapter wherein he has attempted to prove, that "the presence of a morbid poison *in the blood* is the essential cause of cholera" (JOURNAL, vol. ii, 1865, p. 519). The instances of diarrhœa arising from putrid effluvia alluded to by him in that chapter, can never be placed in the same category with the poisonous influence of cholera, as in the great mass of cases of choleraic diarrhœa *bad smells* are not an essential element. Dissecting-rooms, bone-houses, and foul drains, overcrowding and bad ventilation, may be provocative of diarrhœa; but it requires no small stretch of imagination to conceive that by inducing diarrhœa they necessarily develop a blood-ferment within the area of the circulation or anything approaching to such a condition. The rest of the chapter deals in hypotheses so much wider of the mark than the argument above alluded to, that I have no hesitation in stating that Dr. Johnson has signally failed to prove that the basis of his theory is founded in fact. No one denies or disputes that there is a poisonous influence at the bottom of the phenomena of cholera, and that most probably it first influences the organism from without; but it is quite another thing to say that, having once affected the system, it is then in the form of a *materies morbi*—a specific blood-poison—poisoning and circulating with the blood. I shall now give my reasons for repudiating such a theory. The facts in the natural history of the disease, and the behaviour of the symptoms under remedial measures, "the great analysers of disease," are directly opposed to such a doctrine.

I have already shown, and I am supported by Dr. Parkes, that the cardiac and pulmonary, and the gastro-intestinal symptoms do not induce each other, but that they are independent phases of the disease arising from the same primary cause; hence the terms cholera-sicca or spasmodica and cholera biliosa. For all practical purposes they may be looked upon as two separate diseases requiring separate treatment and discussion. Let us first take a glance at the natural history of cases of so-called "true" cholera, algide cholera, without any gastro-intestinal symptoms. Twining tells us, that "if not fatal . . . . . the progress of recovery is almost as rapid as the accession." He continues, "In these instances recovery seems almost as sudden and complete as in cases of patients who are resuscitated after suspension of animation from submersion in water." Is there the slightest evidence or even suspicion here of the existence of a blood-poison, or of elimination of any kind, seeing that the cases Twining is describing are those of *cholera-sicca?* Again, in cases of cholera-biliosa, have we not the algide condition developed with much more certainty and with a greater mortality the more that the patient is reduced by the continuance of the premonitory choleraic diarrhœa? hence the stand which has always been taken by the intelligence of the profession to stop the premonitory symptoms. [We must ever bear in mind that the intestinal flux does not induce the algide condition, but, like all debilitating influences, it acts only secondarily as a predisposing cause.] Does this, let me ask, support the doctrine of nature's elimination by the bowel of a blood-poison capable of inducing the phenomena of collapse? Again, in cases of cholera-sicca, spasmodica and biliosa, we have the evidence of Bell, Annesley, and of many of our best army surgeons in India, who inform us of the next to "miraculous" effects of blood-letting in removing "almost instantly" all the symptoms of the worst forms of cholera, and that, too, by putting "an immediate stop to the vomiting and purging"—the so-called process of cure by elimination. Although venesection has failed in this country, there can be no questioning the observations and experience of such men as I have just quoted. I again ask, can such facts be reconciled with the doctrine of a blood-poison, as generally understood by that term, or, as Dr. Markham words it, "a poison in the blood?" The occasional prompt and seemingly specific effect of camphor in some of the worst forms of collapse is quite inconsistent with the existence of a blood-poison or ferment. The equally rapid action of a mustard or stimulating emetic, which, in some instances, has removed the algide condition as if by a charm, and which, strange to say, is also all but a specific against the incessant vomiting (J. W. Begbie, *Edin. Medical Journal*, 1855, p. 261), leads to the same conclusion, that algide cholera cannot be dependent for its manifestation on a blood-poison. In proof of the powerful effects of mustard, Dr. Johnson addressed a letter to the editor of the *Medical Times and Gazette*, which also appeared in the *Times* newspaper of September 9th, 1854, in which he states: "I must not omit to mention that one or two of our patients have been rescued from an *almost fatal lethargy* by an emetic of mustard and salt." As the almost fatal lethargies occurred in cholera patients, it is reasonable to believe they were also the effect of the cholera blood-poison, which, though circulating *in the blood*, was removed from the system by a simple emetic of *mustard and salt*. Again, as regards the effect of remedies in the premonitory stage of diarrhœa, I have no hesitation in saying that the man does not exist who advocates adding diarrhœa to diarrhœa. Even Dr. Johnson cannot mean it, though he would make us believe it; because, by his own showing, he not only, in his own estimation, prevented collapse taking place among the attendants at King's College Hospital to whom he ordered castor oil (query, did they take it?), but it also *stopped* instead of increased *the diarrhœa*. He says, "We have recently at the hospital cured hundreds of these cases (choleraic diarrhœa) by one or two doses of castor oil." He repeats, "they have all been *quickly* cured by castor oil, and not one has passed into the state of collapse." And why? Simply because the castor oil, if it acted at all, *put an end to*, did not increase, *the premonitory diarrhœa*, and did not remove a particle of the cholera blood-poison from within the area of the circulation. Only fancy a blood-poison removed ("cured") by one or two doses of castor oil! But it may be said that Dr. Johnson does not consider such cases to be cholera, or as depending upon his primary cause—*cholera cathartine.* Listen to what he tells us! "During an epidemic of cholera, there occur many cases of choleraic diarrhœa which never pass into collapse. It is probable that both classes of cases are of essentially the same character; *the same morbid poison is the cause of both.*" (JOURNAL, vol. ii, 1865, p. 521).

Although the advocacy of the eliminative or castor oil treatment of cholera has somewhat shaken the faith of some minds in the profession as regards the propriety of at once stopping the premonitory diarrhœa—epidemics of cholera, like certain other diseases, will have to change their type before men of intelligence and experience alter their treatment. In the therapeutics of cholera in every country in the world, there is no practice more satisfactory and acted upon with greater advantage by the best men in the profession; there is no greater or more certain prophylactic of collapse, and consequently, a fatal termination, than, primarily, the removal of any indigestible or irritating material from the stomach and bowels; and secondarily, *stopping the premonitory diarrhœa as promplty as is possible, if it still persists.* Does this look like the treatment due to a blood-poison or ferment, "which must and will purge itself away?" If a thief gets into a house, is it rational, in order to get him out, to lock him in? Is it not more reasonable thus to argue—that, having suspected a thief to have entered a house clandestinely, and where he had no chance of making his escape; if, on entering the premises twelve or twenty-four hours after all is quiet, we found nothing missing, everything in order, and no thief visible, is it not more reasonable to conclude that our suspicions were groundless, and that the thief existed solely in our own timid and foolish imaginations? Even so is it with the premonitory choleraic diarrhœa; it has nothing to do with a blood-poison, *or with a poison in the blood, more than in any other part of the body of a cholera patient.* The premonitory diarrhœa, by its debilitating influence, may predispose towards the production of collapse; it cannot induce it, simply because the primary cause is not in the blood, nor is it in the alimentary canal, much less is it in the effete stools of the premonitory stage. Not only doe the poison, whatever it is, suddenly come and suddenly go as regards the individual, but the same fugitive characteristic of its presence is also constantly observed as regards whole districts affected with the epidemic influence.

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* Continued from vol. ii, 1866, page 55.

The argument might be enlarged upon to an almost indefinite extent, but I think I have said enough to show that whatever the epidemic influence or poison may be, it certainly is not of the nature of a specific blood-poison, and that the blood is no more poisoned by it than any other portion of the liquids or solids of the system. In other words, whilst I freely admit the existence of a poisoned condition of the system from without by an invisible and hitherto incognoscible something, I find it very difficult indeed to believe that the morbid symptoms induced thereby are necessarily either primarily or secondarily dependent on a specific blood-poison for their manifestation. On the contrary, the facts are all against such a theory, and they all lead to the belief that the poisonous influence is exerted primarily on the nervous system; the morbid condition of all the other systems observed during life and after death being neither more nor less than *effects* of the primary disturbance of the nervous centres—particularly is this true as regards the algide condition. Hence the frequent suddenness of the attack, *like a stroke;* and the equally frequent suddenness of the termination in recovery or death, with and without treatment of any kind; hence also the general unamenableness to treatment, and the immense variety of opinions and theories as regards the pathology and treatment of cholera.

There is one phase of this question which Dr. Johnson has failed to appreciate, and it is remarkable, as it greatly favours his view. It is the question as to the contagiousness or non-contagiousness of cholera, and its mode of propagation. Very possibly, Dr. Johnson may have avoided this phase of the subject on account of the difficulties surrounding the investigation, and on account of the strong opinions entertained on both sides by parties in the profession. It is, and I fear for long will remain, a question *sub judice*—still, in the present instance, it calls for a few observations from me. It is evident that, if a disease at any part of its course or progress in an individual organism is capable of reproducing its like in another susceptible to its influence, and if it can be demonstrated that the parties surrounding the infected individual or individuals, and who are in closest and most constant attendance, become the first victims in an epidemic—then are we bound to believe that there is a poison, or *materies morbi*, or something tantamount, in the bodies of those affected with cholera—that it is thrown off or emanates from the body by one or more of the emunctory organs or surfaces—and, that this matter or *property of matter*, is capable of inducing separately or conjointly the algide and the gastro-enteric phenomena of cholera. We should also be bound to believe that this invisible, unapproachable, and possibly this imaginary something, this *non est inventus*, is capable of attaching itself to garments, bed-clothes, furniture, houses, etc.

For myself, I am free to believe in the existence of such a poison, of such a deadly germ in an epidemic of cholera; but I do not believe it to be of the nature of a *blood-poison*. It is far too subtle in its operations, and at times it is much too evanescent in its attachment to the infected, to be classed as such. In diseases having a blood-poison as their primary cause, death commences *in the blood*. In cholera, death begins *at the heart*. There is not a grain of evidence revealed after death of a change having taken place in the blood during life, other than those which arise from purely physical or mechanical causes. (Gairdner's *Clinical Medicine*, p. 210.)

In conclusion: whilst I believe in the existence of a poisonous influence which may, for the sake of argument, be termed the "cholera-poison", and whilst I believe that it may be said to enter a healthy system, produce its ravages there and emanate therefrom, possibly if not probably increased in virulence and in the power of propagating its like; whilst I believe that this as yet invisible and imponderable something may attach itself to matter, so as it were to become an extraordinary property of the matter of body-clothes, bed-clothes, furniture, food, and the like, still I can see no reason for believing it to be of the nature of a blood- or of a septic-poison. If it is not a blood- or septic-poison, then what is it? If I have succeeded in proving that it is not a blood-poison, or that it is very unlike all other blood-poisons, that is all which I took in hand. Perhaps some other member will tell us what it really is.

Having, to my own satisfaction, answered in the negative the question—"Does cholera in all, or in any of its stages or forms, consist in or depend upon a blood-poison for its manifestation?"—I intend that these letters shall terminate without giving my own ideas as to how we should treat cholera—a question which at the onset I proposed should remain unanswered. In a future paper I may touch upon the subject, after I have treated a much more important one; namely, "The Philosophy of the Algide condition in Cholera". I am, etc.,

Liverpool, August 1868. THO. SKINNER.

THE HORAMAGRAPH.

SIR,—Will you allow me, through the medium of your columns, to inform those gentlemen I met at Oxford, who were anxious to obtain an instrument similar to the one I exhibited for investigating the field of vision, that Mr. Collins, of 77, Great Titchfield Street, Oxford Street, has been here to see the instrument and have it explained. He has by this time, or soon will have, some ready for sale. I am, etc.,

Maidstone, August 1868. MATTHEW A. ADAMS.

SCARLET FEVER AT GUILDFORD.

SIR,—A paragraph appeared in a late number of the JOURNAL, announcing that Guildford was the scene of a severe epidemic of scarlet fever, and describing the sanitary condition of the town as dangerous and disgraceful. As a similar statement appeared on the same day in a column of the *Lancet*, which was acknowledged to have been inserted on the authority of a local newspaper, there can be no doubt as to the source of your information.

I trust you will allow me some space in your next impression to correct the misstatements into which you have been led by an untrustworthy informant.

The first part of the announcement is unfortunately true: the number of cases is now much above the estimate then given; although, in contrasting the severity of this epidemic with that of the typhoid epidemic of last year, you have considerably understated the extent and fatality of the latter. That the present epidemic should have diffused itself more rapidly and caused a greater mortality, is no more than might be expected of a disease so infectious and so prone to attack young children.

But it is to your description of the sanitary state of the town and its alleged connection with the present outbreak of scarlet fever, that I am about to take exception. In describing the river as "no better than a sewer," you imply that the sewage of the town is turned into it, as your contemporary states in so many words; adding that its waters are black, muddy, and foul smelling. Now the fact is, that a very small amount of closet-drainage finds its way into the river at Guildford, and that surreptitiously; while its chief impurities are due to the refuse poured into it by various manufactories seated on its banks far above the town. Its waters are thereby rendered unfit for drinking, but they are not discoloured or ill-smelling. That the river is not so dangerous to the dwellers on its banks, may be gathered from the fact that this quarter of the town has furnished but few cases of fever, and those generally of a mild character.

The water-supply is also accused; although an ample supply has been delivered during the present year, averaging thirty-five gallons per head in houses taking water from the public works. Some complaints may have been made in one quarter of the town situated on a high hill which is reached with difficulty by the lifting power now in use; and here, again, the epidemic has not been so severely felt as in the lower levels. The quality of the water supplied is not perceptibly changed since the analysis made by Dr. Miller last autumn, which was decidedly favourable. The new well, to which the immense majority of fever cases owed their origin last autumn, was closed long ago. The drainage of the town is stated to be disgraceful, and, in so far as it is on the cesspool system, we are quite open to this charge; but, excepting the evils inseparable from such a system, there are but few instances of the nuisances complained of by your informant, and which may have escaped the vigilance of our very active inspector. The contamination of well-water by filtration through the chalk has been much overstated.

To return now to the question as to the dependence of this outbreak of scarlet fever on any local and removable causes. So far as the observations made during the present epidemic would lead to any conclusion, it would seem that there is no connection between the incidence of the fever and the sanitary state of the affected houses. Nearly every part of the town and some outlying villages have been attacked indiscriminately; and it is a noteworthy fact that, in the first explosion of the fever, some of the worst cases occurred in gentlemen's houses where the sanitary conditions were the most favourable, while the worst localities, where nuisances are unavoidable, have either escaped altogether, or have furnished cases of the mildest form of disease.

The opinion at which we of the medical profession have arrived is, that the aggravated character of the present epidemic is due to the unprecedented heat of this season, which has acted by intensifying the fever-poison, and weakening the vital power of those exposed to it. I know that it will be objected by sanitarians that the intense heat has not operated in this manner, but by rendering insanitary conditions more active—an assumption which certainly receives no support from the circumstances of this epidemic, however true it may be of cholera and typhoid fever. The only exceptions to this are overcrowding and the neglect of personal cleanliness, together with the too early exposure of convalescents—conditions over which the local authorities have very little control, but which, I suspect, are the more potent agencies for diffusing and aggravating the disease now under consideration than defects either of drainage or water-supply.

I am, etc., HENRY S. TAYLOR.

Guildford, August 19th, 1868.

PROFESSIONAL POLITICS.

SIR,—I have just read your leader of this date, under the heading I have adopted. It is pleasant, at this crisis in our professional history, to learn from so good an authority as yourself, that great rose-water revolutions are actually possible; and that some of the most lasting effects of the great Oxford meeting may be expected from some of the most placid and least discussed resolutions. I also note your opinion, that demagogues are not much more profitable than volcanoes. Your metaphor is suggestive. I have always thought no comparison more applicable than that so often instituted between the laws, methods, and effects of cultivation, of the mind and the soil respectively. In both cases, I am a believer in the economy of high farming; I hold with subsoil ploughing; and I look upon the clod-crusher and the scarifier as very useful implements. But, of all agencies, none is more instrumental than daylight in the production of good crops, either of corn or ideas; and I, therefore, most cordially assent to the conclusion of your article, wherein you suggest that the work of our Subcommittees on Parliamentary matters and on the Representation of the Registered Practitioner in the Medical Council, will be best done "in the eye of the public." I think our chief Committee, the Committee of Council, would be benefited, and so should we, if a little more daylight were let in upon its working. As a governing body, the Council of the Association is a myth; whereas the Committee of Council has vast powers, and is virtually irresponsible. I do not see why the Council should not have a half-yearly meeting, and receive a full and detailed report of the proceedings of its Committee in the interim; but, if the one yearly meeting is to be sufficient, the Committee of Council should give a much fuller account of its proceedings than it now does, with statement of attendance of members, matters discussed, and results of debate. I even think it would only be right that the Council should regularly have before it the minute-book of the Committee and the copy letter-book.

The present practice of reading the Report of the Council, at the annual general meeting, after the address of the President, and when a whole lot of business stands on the agenda for the same evening, is certainly not favourable to that free, thorough, and unreserved discussion which is necessary to insure the full discharge of the responsibility of our governors to the constituency. I suggest that, at each annual meeting of the Association, a special meeting be devoted to reading and discussing the report of the governing body, to debating notices of motion affecting the laws of the Association, and matters which concern the interests of the profession as distinct from scientific questions. Let us have plenty of daylight in all the holes and corners. I am, etc.,

Birmingham, Aug. 22nd, 1868. SAMPSON GAMGEE.

REPRESENTATION OF THE MEDICAL PROFESSION IN THE MEDICAL COUNCIL.

SIR,—The JOURNAL of August 1st contains a letter from Mr. Walter Rivington, which, after objecting to the very moderate plan of reform proposed by one of the candidates for the Edinburgh and St. Andrew's Universities, puts forth the most revolutionary proposal that has yet been made. Because what is called the direct representation of the profession (advocated by the Association), and which involves an increase of the Council by eight members, has been found too difficult a reform to accomplish at once, Mr. Rivington proposes, that a demand for twelve additional members, elected by the registered practitioners of the kingdom, should be made; and he is actually utopian enough to believe so much in his proposal, as to think that we, "within a year, might bring the cause to a triumphant issue, with or without the co-operation of the Medical Council." Could any assertion be wider of the mark? First, an Act of Parliament must be passed to change the numbers of the Council. Now, this Council has tried again and again to obtain an amendment of the Medical Act, and has been supported by the press and by the whole profession, yet it has failed—miserably failed. In spite of this, Mr. Rivington is sanguine enough to imagine that, without the co-operation of the Council, and in spite of its opposition, his measure could be carried within a year. Verily he is sanguine, but I fear he is doomed to disappointment.

Let us look at his reasons for his proposal. He says that by it the "balance of power would be held by the Crown Nominees;" a state of things which I venture to assert the profession by no means denies. We want representation, and that in its true sense can never be given by Crown nominees. All Mr. Rivington's new arguments are negative—they resolve themselves into objections to the indirect method of representation as some call it; but I venture to say, that his objections are all fallacious. He objects to the scheme of the representative of each corporation being chosen by those who hold its diplomas; and yet, in the next paragraph, almost in the words of Dr. Prosser James, he argues that the Fellows of colleges and graduates of universities should elect the representative. This seems to be the most astounding way of answering one's own arguments: I think, however, I see the meaning of it. Mr. Rivington takes as his first example, the College of Surgeons, estimating it at 15,000 Members and 1,400 Fellows. Then he asks, if the "voice of English surgeons is to be drowned to give the profession representation;" and further, "if the corporation should be saddled with the heavy expense of collecting the votes." But after this show of opposition he says, "let the Fellows elect the representative." Now Sir, the clue to this *non sequitur* seems to me that, Mr. Rivington is a Fellow of that College, and, being so, he has no sympathy with the larger body of *Members*, but apparently despises them. He scarcely recognises them as surgeons, for he argues that to give them a vote would drown the voice of English surgeons. Of all the illiberal statements lately made, that to my mind is the most illiberal.

You, Sir, can bear me out, when I assert that the Members of the College fairly represent the English surgeons, and that the selecter circle of Fellows does not comprise all English surgeons. But granting for the moment, that Mr. Rivington is to some extent in the right, is not this extension of the franchise to the Fellows part of the plan to which he is objecting? In the address of Dr. Prosser James, which contains the first enunciation of the indirect plan, I find that gentleman does not use the words Fellow or Member at all, but speaks of those who hold the medical diplomas of the corporations and universities. He evidently makes an attempt to avoid invidious distinctions, but I think we may fairly ask him for a more distinct statement. Would he give a vote to every one who holds either diploma, or does he only mean to give such to the Fellows? I think, Sir, that he might plainly be expected to answer this, and that it is not beneath his dignity as a candidate to reply through your columns.

But, even if Dr. Prosser James stay his hand at the Fellows, and hesitate to speak for members, Mr. Walter Rivington is bound to give his support, since this latter gentleman says, in his letter to you, "by all means popularise as far as possible the franchise for the election of representatives of the corporations." Now, to do this is the very pith and marrow of the indirect method, for putting forward which Dr. James is entitled to the thanks of the profession. Cannot any one see that, if the franchise were thus popularised, it would no longer be insensible to the voice of the profession? If it were found that direct representation were desired, the question would not be shelved as it was this year by the nominees of corporate oligarchies; besides, it would entail other reforms of the corporations themselves. We need, Sir, this reform of every corporate body; and to obtain it, I see only one way—to popularise the franchise of all these bodies. Therefore I advocate the indirect plan as a *first* step,—as one, too, that can be obtained without any Act of Parliament or any expense. The free expression of opinion, in the journals, must suffice to carry on the work to which such an impetus has lately been given.

There is only one other point in Mr. Rivington's letter, and that is the most plausible of all. He thinks that the indirect plan contains the seeds of its own decay, because he has so little faith in his own colleges that he fancies they would cease to exist, if a general state license were established. Now, Sir, I think the colleges by no means so sure to die. I see in them a life which such reforms would renew, and I think they would extend their basis. I, Sir, look hopefully for the early adoption of the indirect plan, as the only avenue to any other reform that may be found necessary; and I see even in Mr. Rivington's objections fresh reason to believe he will yet be found amongst its supporters.

I am, etc., GEO. P. JEMMETT.

159, Lever Street, London, August 1868.

SIR,—I am extremely glad to observe that my arguments against Dr. Prosser James' plan of *indirect* representation of the profession in the Medical Council, have brought Dr. Williams and Mr. Johnson into the field to defend it. The strength of their position lies in this: the indirect plan avoids an increase in the number of representatives, and does not necessitate a new Act of Parliament. These undoubtedly are weighty considerations, but considerations, nevertheless, of *secondary* and not *primary* importance. The first question must always be, What does the interest of the medical profession really demand? And, if the answer given to that question be antagonistic to an existing Act of Parliament, the Act of Parliament must be remodelled, in accordance with the interests of the profession, for which, originally, it was passed, instead of the interests of the profession being sacrificed to a "law of the Medes and Persians, which altereth not." Of course, it might so happen that the obstacles to the adoption of the best scheme were insuperable; and then, undoubtedly, it would be necessary to adopt a scheme which avoided these obstacles. But, what are the insurmountable obstacles to a new Act, or an Amendment of an Act of Parliament? There is no finality in human affairs and regulations. Four or five Acts have been passed already to amend the Medical Act, and there may just as well be another, which shall be really effectual for the purpose. Then, what "cabalistic charm" is there in the number 24? Why should not 24 be made 32 or 36? Is the round table at the College of Physicians too small? Are the words that fall from the honeyed lips of the present councillors too precious to be condensed or mingled with the vulgar language of direct representatives of the rank and file? Are they always such words as the profession rejoices to pay for? Let us go to the root of this matter; and the root of the matter is, that the profession is giving a very high price for an article, very valuable of its kind, but not exactly of the kind required. A great part of the money paid by the profession is wasted. The waste on the *British Pharmacopœia* would have supported for many years direct representatives of the profession. Even now a slight readjustment of fees paid to councillors, would furnish the necessary provision. I am not about to advocate here any particular plan of payment to councillors. All that I am concerned to show is, that expense is no insuperable obstacle to direct representation, and with this view I will quote a passage from Dr. Mapother's *Carmichael Prize Essay*: —"The funds of the Council are wholly derived from practitioners; let therefore the profession-representatives and the Crown Nominees be paid out of this revenue; and it is just, that each licensing body should pay the expenses or remuneration of its advocate."—P. 23. But, while the objections urged against *direct* representation are not very formidable, the objections to *indirect* representation appear to me to be insurmountable. In my former letter, in addition to other objections which have not been touched, I pointed out that neither in law nor reason could the Society of Apothecaries be represented in the Council by a member chosen by its licentiates; and to this I add that, under their present charters, neither the College of Physicians nor the College of Surgeons could be represented fairly by councillors, in whose election licentiates and members bore a principal part. The Charters of the Colleges place the governing power in the hands of the Fellows; and therefore, to the Fellows should properly belong the right of electing the representatives of the Colleges in the Medical Council. By the decisions of the Medical Council, so far as its power extends, the Colleges are bound; and if the representatives of the Colleges are to be chosen by members and licentiates, the governing power will be taken, to that extent, away from the Fellows and given to the Members and Licentiates. How can this fairly be done without new Charters, and how are these new Charters to be obtained by the advocates of indirect representation? Are the Councillors or the Fellows of the Colleges likely to advocate these new Charters? Can the Medical Council say that new Charters must be obtained, or would it say so if it could? Where the power and the machinery exist by which these new Charters are to be secured after they have been made palatable to the present possessors of power, I am so much at a loss to imagine, that Mr. Johnson's belief that Dr. Prosser James' proposition will soon be carried to a successful result, seems to me like "the baseless fabric of a vision."

Equally visionary, alas! appears the idea of Dr. Williams, that the same representative could watch over the interests of the profession and the interests of a corporation. The interests of the two may in reality be identical, but many a weary year will pass before the millennial era arrives, when this identity of interest will not only be theoretically admitted, but become a practical guide in action and in counsel. The impossibility at the present time of establishing this identity of interest, which, be it observed, involves identity of thought and expression, renders it necessary for the corporations and the profession to be separately represented. And, if my friendly opponents will concede this point, I think it will be found, that underlying our initial differences of opinion, there is a substantive agreement between us as to the great end for which we are anxious to strive. The chief ends are two; the first to see that the representation of the profession in the council proves an *adequate* representation; and the second to liberalise, without subverting, the government of our corporations. With regard to the second point, I can only remark in this letter, that, if we waive altogether for the present the admission of licentiates and members to a share (and they would have the lion's share) in the government of the corporations, there are many measures of reform which can be obtained under the present constitutions, if only the Fellows, in whom the real power resides, be resolved to assert their rights and privileges, to express their opinions with candour, calmness, and courage, and to give those opinions effect.

In connection with this subject allow me to notice the remark of Dr. Williams, that "it seems curious that Mr. Rivington should say 'let the Medical Graduates of the University of London and not the Senate, elect the University representatives,' and then not be willing to do the same in the case of the College of Surgeons." There is no curiosity at all, but a strict analogy between my views in the one case and my views in the other. I advocate transferring the power of election of the medical councillor to represent the University, from the Senate to the graduates, and, in the case of the College of Surgeons, from the Council to the Fellows. I do not ask for a voice to be given to the *Members* of the College, because the government resides with the Fellows; because I think that the College should remain substantially a College of *Surgeons* as distinguished from general practitioners; and because the Fellows of the College, who are the ruling body, and not the Members, are the analogues of the Graduates of the University, who, as members of convocation, have a share (though not yet a sufficient share) in the government of the University. Let us effect even this measure of change; and we shall find that the English section of the Medical Council will represent the interests of English physicians and their College, of English surgeons and *their* College, of the Corporation of Apothecaries (whose licensing power, in all probability, will gradually die a natural death of honoured inanition and decay, if it be not self-extinguished), and the interests of the English University Graduates, which are synonymous with the interests of a high education in arts and science, and medicine. And when a fair adjustment has been effected for the representation of the Scotch and Irish Corporations, our first end, if not already secured, must engage our energies—the end of obtaining an *adequate* representation of the profession in the Medical Council. It is not enough that the profession shall be represented in the Council; it must be sufficiently represented to make the voice of its representatives an influential voice, and a voice that will obtain a hearing even in a chorus of the corporations. If this point be gained, and it *can* be gained if the profession will it, the power of the profession in the Council will be far more substantial than it would ever be under the *indirect* plan of representation, while the assemblage of representatives of all the corporations, elected under the enlarged franchise for which I contend, instead of proving an obstacle to progress, will be converted into a means of effecting it "speedily, pleasantly, and safely." I am, etc., WALTER RIVINGTON.

August 1868.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—First M.B. Examination Entire. Pass Examination.

First Division.

Ashby, A., Guy's Hospital
Barrett, A. W., London Hospital
Bruce, J. M., M.A.Aber., Aberdeen
Cotterill, A., King's College
Curnow, John, King's College
Durham, F., Guy's Hospital
Lucas, R. C., Guy's Hospital
Lyell, R. W., King's College
Martin, H. N., University College
Parker, R., University College
Seaton, E. C., St. Thomas's Hospital
Shewen, A., University College
Smith, H. A., St. Bartholomew's Hospital
Smith, R. T., University College
Walker, H. E., Guy's Hospital

Second Division.

Allchin, W. H., University College
Barnes, E. G., St. George's Hospital
Carter, C. H., B.A., University Coll.
Cumberbatch, A. E., St. Bartholomew's Hospital
De Liefde, J., Guy's Hospital
Harris, J. A., University of Edinburgh
Harris, R., Guy's Hospital
Leigh, R., Liverpool Infirmary School of Medicine
Lowe, W. G., St. Bartholomew's Hospital
Paget, W. S., Liverpool School of Medicine
Wall, A. J., St. Mary's Hospital
Whitmore, W. B., King's College

Physiology only.

First Division.

Stocker, J. R., Guy's Hospital

Second Division.

Bott, T. B., University College
Seccombe, E. H., King's College
Vachell, C. T., King's College

Excluding Physiology.

First Division.

Burgess, W. F. R., Guy's Hospital
Gibbings, A. T., King's College

Second Division.

Barby, J. T., University College
Beach, F., King's College
Smith, A. W., Guy's Hospital
Taylor, J. (B.), Guy's Hospital

Examination for Honours.—Anatomy.

First Class.

Curnow, J. (Exhibition and Gold Medal), King's College
Bruce, J. M. (worthy of Exhibition—Gold Medal), Aberdeen

Second Class.

Cotterill, A., King's College
Parker, R., University College

Third Class.

Smith, H. A., St. Bartholomew's Hospital
Durham, F., Guy's Hospital
Walker, H. E., Guy's Hospital

Organic Chemistry and Materia Medica and Pharmaceutical Chemistry.

First Class.

Curnow, J. (Exhibition and Gold Medal), King's College
Smith, H. A. (Gold Medal), St. Bartholomew's Hospital
Smith, R. T., University College
Shewin, A., University College
Bruce, J. M., Aberdeen
Martin, H. N., University College

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 20th, 1868.

Cartwright, John Augustus Tatam, Spalding
Hiron, William Nathaniel, Chipping Campden
Lardner, Frederick Boultbee, Gillingham, Kent
Morgan, Frederick, Culmstock, Devon
Widdas, Daniel, York

At the same Court, the following passed the first examination.

Argles, Robert, King's College
Hart, Eugène John, Guy's Hospital
Knowles, John, King's College

ARMY MEDICAL DEPARTMENT.—List of gentlemen who competed successfully for appointments as Assistant-Surgeons in Her Majesty's British Medical Service, at the competitive examination held at Chelsea, on August 10th, 1868.

Order of merit.	Names.	No. of marks.	Order of merit.	Names.	No. of marks.
1.	Chatterton, J.	2210	12.	Sharpe, W.	1725
2.	Stokes, A. H.	2160	13.	Bennett, R. D.	1695
3.	Corry, G.	2055	14.	Maunsell, H. E.	1670
4.	Saunderson, W. H.	1950	15.	Thornley, J. G.	1655
5.	Crean, J. J.	1915	16.	Duke, A. W.	1630
6.	Scanlon, J.	1900	17.	Carroll, T. E.	1600
7.	Adye, Curran F. G.	1875	18.	Davy, F. A.	1585
8.	Faris, T.	1855	19.	White, H. B.	1560
9.	Triphook, G. R.	1780	20.	Bradford, R. M.	1530
10.	Stannard, H.	1745	21.	Maxwell, E. C.	1530
11.	Webb, J. H.	1730			

MEDICAL VACANCIES.

THE following vacancies are declared:—

ASYLUM FOR IDIOTS, Earlswood—Assistant Medical Officer.
AYLSHAM UNION Medical Officer for District No. 4.
BRISTOL DISPENSARY—Resident Surgeon.
CARNARVONSHIRE AND ANGLESEY INFIRMARY—House-Surgeon.
CASTLEDERG UNION, co. Tyrone—Medical Officer for the Drumquin Dispensary District.
DEVON COUNTY LUNATIC ASYLUM, Exminster—Assistant Medical Officer.
EAST LONDON HOSPITAL FOR CHILDREN—Medical Officer; Surgeon-Dentist.
LAUNCESTON UNION, Cornwall—Medical Officer for District No. 2.
LIMERICK UNION—Apothecary to the City of Limerick Dispensary.
LOCHBROOM, co. Ross and Cromarty—Parochial Medical Officer.
OMAGH UNION, co. Tyrone—Medical Officer for Drumquin Dispensary District.
OPHTHALMIC HOSPITAL, Southwark—Surgeon.
PEEBLES—Inspector of Factories, Surgeon to the County Prison, and Surgeon to the County Poor-house.
PEEBLES, EDDLESTON, STROBO, and MANOR, Peebles-shire—Parochial Medical Officers.
QUEEN'S HOSPITAL, Birmingham—Physician.
ROTHES, Morayshire—Parochial Medical Officer.
ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.
ROYAL PIMLICO DISPENSARY—Surgeon-Dentist.
ROYAL SOUTH LONDON DISPENSARY, St. George's Cross—District Surgeon to visit Out-Patients in Blackfriars District.
ST. LEONARD'S HOSPITAL, Sudbury, Suffolk—Medical Officer.
ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street—Surgeon.
STAFFORDSHIRE GENERAL INFIRMARY, Stafford—House-Surgeon and Secretary.
STRATHMIGLO, Fifeshire—Parochial Medical Officer.
TRINITY COLLEGE, Dublin—Professor of Botany.
WAKEFIELD HOUSE OF CORRECTION—Surgeon.
WESTERN GENERAL DISPENSARY, Marylebone—Physician-in-Ordinary.
WYCOMBE UNION, Bucks—Medical Officer for District No. 5.

MEDICAL APPOINTMENTS.

ARMY.

LINDSAY, Staff-Assistant-Surgeon R., M.B., to be Assistant-Surgeon 75th Foot, *vice* J. W. C. N. Murphy.

MURPHY, Assistant-Surgeon J. W. C. N., 75th Foot, to be Staff-Assistant-Surgeon, *vice* R. Lindsay, M.B.

DEATHS.

*SMITH, F. P., Esq., Surgeon, at Aylsham, Norfolk, aged 69, on August 18th.

SPENCER, Richard, Esq., Surgeon (formerly Surgeon to the 21st Light Dragoons, and twenty years in the service at the Cape of Good Hope and in India), at Fonthill Bishop, Wiltshire, aged 90, on August 6th.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from August 19th to 25th (both inclusive).

Taken at Kew, by Dr. TREUTLER, Fellow of the Meteorologica Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.824
Highest reading of do. (corrected and reduced), on 25th, at 10 P.M.	30.218
Lowest ditto Ditto on 22nd, at 5.45 P.M.	29.142
Range of pressure during the week	1.076
Mean temperature of air in shade	60.1
Mean temperature of evaporation	57.8
Mean degree of humidity (saturation=100)	86.
Mean temperature of dew-point	55.0
Mean maximum temperature of the week	67.2
Mean minimum temperature of the week	52.3
Calculated mean temperature of the week	59.7
Maximum temperature in shade, on 19th	68.9
Minimum temperature (protected), on 25th	48.0
Minimum temperature (exposed on grass), on 25th	41.0
Range of temperature during week	27.9
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 25th	129.6
Lowest ditto ditto on 20th	75.1
Mean amount of clouds (0—10)	5.9
Total rainfall (which fell on 19th, 20th, and 22nd)	0.96 inch
Mean amount of ozone (0—10)	5.8

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	1	0	1	0	1	1	3	0	4.4
2 P.M.	0	1	0	0	0	2	1	2	1	4.0
10 P.M.	0	2	0	0	0	1	3	1	0	2.7

Mean force of wind (0—12) 3.7

The weather of the past week has been unsettled. The range of pressure has been considerable, and the atmosphere cooler and moister than during the previous week. A heavy gale commenced on the morning of the 22nd, and reached its height the same day about 6 P.M., the wind then blowing with a force=10; direction, S.W. Wind in general has been variable in force and direction. On the 23rd, at 10 A.M., the ozonometer registered a degree of ozone=10; the paper had been exposed during the preceding twenty-four hours—*i. e.*, during the gale of the 22nd. The general health continues good.

OBSTETRICAL SOCIETY.—The Library of the Obstetrical Society will be closed from the 1st to the 14th September, inclusive.

A NEW DISEASE.—Dr. Ahlfeld, in Wagner's *Archiv*, describes a case of *sarcoma fibrosum multo- et fuso-cellulare telcangeiectodes hæmorrhagicum diffusum.*

TESTIMONIAL.—A testimonial was presented on the 18th inst. to Dr. F. G. Jackson, of Barnsley, on his leaving that town. It consisted of a handsome solid silver *épergne*, the pedestal of which is supported by figures symbolising Faith, Hope, and Charity. There was also an address from his fellow townsmen, engrossed on vellum, and accompanied by two hundred signatures. It mentions especially "the services he has rendered to the Mechanic's Institute as one of its vice-presidents for many years; the independence of his conduct as a member of the Local Board of Health; the advocacy he has given to everything (particularly the new water-supply) calculated to promote the sanitary condition of the town; the invaluable assistance he has rendered in the raising and the administration of the Fund for the relief of the sufferers by the Oaks Colliery explosion; the prominent part he has taken in the furtherance of other matters of local interest and importance; the great ability and information he has brought to the discussion of public questions." An address from the widows of the victims of the Oaks Colliery explosion was also presented.

TREATMENT OF WOUNDS BY CARBOLIC ACID.—In his address on Surgery to the Bengal Branch of the British Medical Association, Dr. Fayrer gives a detailed account of the application of Professor Lister's method of employing carbolic acid, and concludes by saying: To the surgeons who treated and watched the cases, its good effects were very apparent; and the circumstances of each have impressed them with the most satisfactory evidence of its value. It was frequently obvious that, just at a point in its progress where the supervention of unfavourable symptoms was dreaded, the aspect of a case became favourable, when former experience would have led them to expect the reverse; and the impression left on their minds, and certainly on mine, is that they have found a valuable auxiliary in the treatment of surgical disease.

OPERATION DAYS AT THE HOSPITALS.

IONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

UESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

VEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

IT is particularly requested that, during the month of August, all communications whatever relating to the JOURNAL should be addressed to the office, 37, Great Street, and NOT TO THE HOUSE OF THE EDITOR, who is absent from town.

A MAISON DE SANTÉ, VENTNOR.—There has been submitted to us the plan of some cottage-residences, intended for the reception of pulmonary and other invalids seeking Ventnor as a health-resort. It too often happens that invalids are unable to secure the advantages of such a resort, from the expenses attendant upon residence and nursing and invalid dietary, in a separate lodging-house not arranged for their convenience. A *maison de santé*, conducted by ladies who have the highest local reference and sanction, has been opened between Ventnor and Bonchurch. Mr. Tuttiett, M.R.C.S., is the local Treasurer; and applications on the subject may be made to him or to the managers, Trinity Terrace, Ventnor. Sir John and Lady Simeon and Dr. Hassall are among those who lend the sanction of their names to this useful enterprise.

STATE MEDICINE.

SIR,—The remarks of Dr. Rumsey in your JOURNAL of June 13th, with reference to the appointment of officers of health throughout the kingdom, are specially important; and, from the breadth of the view which he takes, should command the most serious attention of our legislators.

An officer of health must be debarred from private practice, not only from the jealousy with which his fellow practitioners would regard his suggestions, but he should have power to insist on improvements being carried out, without entailing thereby the loss of patients, who hate all new fangled improvements, and value their present ease much more than their future and permanent benefit. Every medical man knows how difficult it is to move the general mass of our more enlightened fellow countrymen; how much more those whose ideas cannot realise sickness as produced by a cause as distinct as starvation producing death. We all know how typhoid fever is propagated; and the late outbreak at Terling is only what has occurred in varying degrees throughout very many places in England. A few months ago, I was in a manufacturing district where typhoid fever had prevailed very extensively. The large proportion of the people worked in one manufactory, and their abodes were the property of the capitalists who worked the concern. One latrine, on the old filthy cesspool system, to four or five houses, was the average supply. Fortunately, good water was supplied by pipes, or it is more than probable that the experience of Terling would have been anticipated on a much larger scale. The surgeon, hard-worked, with a large family, remonstrated. The proprietors were averse to improvements which would cost money. They carried a majority at the local board, and the doctor, though a zealous sanitarian, was obliged to content himself for the time with the treatment far more than with the prevention of disease.

How many isolated outbreaks of typhoid fever can every country practitioner not call to mind, where the disease has in succession attacked almost every inmate of a farm-house. These outbreaks will continue so long as the present system of cesspools is allowed. Such instances, and they might be multiplied *ad infinitum*, prove that the doctor has no power to abate nuisances; nor should he be called upon to sacrifice the bread he eats by uselessly kicking against the powers that be in his little circle; an officer of health could compel owners of property to provide for their poorer tenants. As Dr. Rumsey says, he should be superintendent of registrars for the whole of the district over which, as health officer, he exercises surveillance. He would thus see, at a very early period, where zymotic disease was fatal. Practitioners should be asked to communicate with him and say where cases of any disease liable to prevail epidemically are occurring. It is difficult to estimate the good that a staff of health officers, able at once to analyse and report on waters and the purification of towns and villages, would effect throughout the length and breadth of England. Their assistance to coroners would be invaluable; and would, I think, go far to do away with the verdict, which is common in country districts, and even in towns, where a sudden death is investigated, Died by the Visitation of God. I am, etc., X. Y. Z.

COPIES OF THE JOURNAL WANTED.—In consequence of the recent large increase in the number of members, several numbers of the BRITISH MEDICAL JOURNAL, which are urgently required, are out of print. Gentlemen having copies of the numbers for July 11 and 25, and August 1, 8, and 15, will receive full price for them, on forwarding them to Mr. Powle, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

WILKS'S PATHOLOGY.—A member wishes to purchase a copy of Wilks's *Pathology*. Apply to J. C., Post-office, Vigo Street, London, W.

MINERAL WATERS OF DROITWICH.

SIR,—In answer to S.N.'s inquiries as to the mineral waters of Droitwich, I shall be happy to afford him any information I can. But, in the first place, the mineral spring is no new discovery—baths having been established here during the colonisation of Britain by the Romans. The spring is a saturated brine, which, according to the analysis by Herapath, contains in each imperial gallon, chloride of sodium, 21761.872 grains; chloride of magnesium, 2.56 grains; sulphate of lime, 91.12 grains; sulphate of alumina, 14.4 grains; sulphate of soda, 342.72 grains; and iodide of sodium, .208 grain; making, saline matters, in all, 22212.88 grains.

The baths are especially useful in rheumatism, chronic gout, rheumatic gout, anæmia, amenorrhœa, struma, uterine affections, and a variety of cutaneous diseases. I am, etc., S. S. RODEN, M.D.

Droitwich, July 1868.

THE PUBLIC SERVICES.—The maximum age of admission to the Medical Service of the Army is 23 years, and to that of the Navy 28 years.

"COMMITTEE ON THE OBSERVATION AND REGISTRATION OF DISEASE."

SIR,—I have heard with much regret that, during the recent meeting of the Association in Oxford, there was some difficulty in finding a room for the use of the Registration of Disease Committee. Since it might be supposed that I, as Honorary Secretary, was at fault in not making proper arrangements for the meeting, I should be glad if you would allow me to state what steps I took in the matter.

I was unfortunately quite unable to attend the meeting; but, a fortnight before the time fixed, I wrote to Mr. T. Watkin Williams, the General Secretary, stating that a meeting of the Committee would be held at 9.30 A.M. on Thursday, August 6th; and I requested him to appoint a place of meeting, and to announce it in the JOURNAL. I received no reply to my letter; but I found that a notice of the meeting was inserted in the JOURNAL, without any indication of the place of meeting. I again wrote to Mr. Williams, asking him to fix upon some room for the meeting, in order that I might notify it in the circulars.

Mr. Williams replied that he could not assign a room for the meeting; but that I must state in the circular that the place would be announced during the Oxford meeting. I did this; and sent to him both at Oxford and Birmingham a copy of the circular; and, at the same time, explained that I should probably be unable to attend the meeting, and that I must trust to him to announce the place of meeting at the Reception-room, and in any other way that he thought desirable. A copy of the proposed Report of the Committee was also forwarded.

Dr. Morgan then kindly consented to undertake my duties as Secretary; and I believed that I had done what was necessary to secure a successful meeting of the Committee.

It was discovered too late, I believe, for rectification, that Mr. Williams had omitted to give the necessary information as to the place of meeting, and hence some inconvenience seems to have occurred. I can only express my extreme regret that I could not myself be on the spot. I enclose a copy of the report passed by the members who were present. I am, etc.,

St. Peter's Square, Manchester, August 1868. ARTHUR RANSOME.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Birmingham Daily Post, August 22nd; The Wiltshire County Mirror, August 26th; The Lincoln Gazette, August 22nd; Berrow's Worcester Journal, August 15th; The Barnsley Chronicle, August 22nd; The Japan Times' Overland Mail, June 27th; The Stockport and Cheshire County News, August 21st; The Western Daily Mercury, August 19th; The Cambridge Independent Press, August 8th; The Western Morning News, August 18th; The Western Daily Press, August 22nd.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. F. C. Skey, London; M.D., Bristol; Mr. T. Webster, Redland, Bristol; Mr. R. R. Brown, Dublin; Mr. J. Sampson Gamgee, Birmingham; Dr. T. B. Bott, Bury; Mr. H. C. Burdett, Birmingham; Mr. G. Grewcock, Nottingham; Mr. Henry Lee, London; Mr. L. Ash, Holsworthy; Dr. Cruise, Dublin; Mr. Bridger, Cambridge; Mr. Whipple, Plymouth; Dr. Hyde Salter, London; Dr. Denny, London; Dr. J. G. Wilkinson, London; Mr. Richardson, Newcastle-upon-Tyne; Dr. Dickson, London; Dr. G. H. La Fargue, Godalming.

LETTERS, ETC. (with enclosures) from:—

Mr. F. Le Gros Clark, London; Dr. George Johnson, London; Mr. J. B. Cluff, London; Mr. Langmore, London; Dr. Playfair, London; Dr. J. Hughlings Jackson, London; A Public Vaccinator; Dr. M. A. Adams, Maidstone; Dr. Ogle, Derby; Dr. W. Strange, Worcester; Dr. C. Taylor, Nottingham; The Director-General of the Naval Medical Department; Mr. E. Lloyd, London; The Registrar of the University of Durham; Dr. T. M. Lownds, Bristol; Dr. Skinner, Liverpool; Mr. W. Rivington, London; Mr. J. Affleck, Stretford; Mr. McKeand, Manchester; The Director-General of the Army Medical Department; Mr. W. Nixon, London; Mr. Milner Moore, London; Mr. F. T. Coates, London; Mr. J. P. Coldstream, Edinburgh; Mr. H. S. Taylor, Guildford; Dr. E. Copeman, Norwich; Mr. St. George Mivart, London; Dr. John Murray, London; The Registrar-General of Ireland; The Registrar-General of England; Mr. T. M. Stone, London; The Secretary of Apothecaries' Hall; Dr. A. Benisch; Dr. Treutler, Kew; Mr. J. S. Boyd, Wigton; Dr. Shapter, Exeter.

BOOKS, ETC., RECEIVED.

The New Orleans Journal of Medicine, July 1868.
The St. Louis Medical Reporter for August.

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REMARKS
ON
THE PHYSIOLOGY OF ANÆSTHESIA.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Physician to King's College Hospital; Professor of Medicine in King's College; etc.

The late Dr. Snow, after a careful inquiry into the mode of action of anæsthetic vapours, arrived at the conclusion that "chloroform, ether, and similar substances, when present in the blood in certain quantities, have the effect of limiting those combinations between the oxygen of the arterial blood and the tissues of the body which are essential to sensation, volition, and, in short, all the animal functions. These substances modify, and in larger quantities arrest, the animal functions, in the same way and by the same power that they modify and arrest combustion, the slow oxidation of phosphorus, and other kinds of oxidation unconnected with the living body, when they are mixed in certain quantities with the atmospheric air." (*Medical Gazette*, vol. xlvii, p. 626.) He goes on to say that "this explanation is probably applicable to the action of all narcotics." He refers to the observation of Dr. Prout, "who discovered that fermented and spirituous liquors diminish the amount of carbonic acid given off from the lungs." He also refers to Beneke's observation, that not only does alcohol lessen the amount of carbonic acid exhaled by the lungs, but also the amount of all the urinary constituents. And Dr. Snow proved, by experiments upon animals and upon himself, that the inhalation of the vapour of chloroform and of ether lowers the temperature of the body, and lessens the amount of carbonic acid exhaled by the lungs. In short, Dr. Snow collected a large amount of evidence in support of the proposition that the action of narcotics is due to the power which they possess of lessening the oxidation of the tissues. A taper burning with a dim and smoky flame, and being finally extinguished by the action of chloroform-vapour, affords a simple yet striking illustration of the manner in which the same vapour lessens and extinguishes "the flame of life". Dr. Snow further proved that the diminished oxidation is not explained by the combination of the narcotic substance with the oxygen of the arterial blood; for, as he says, the vapours of chloroform and ether escape for the most part unchanged in the expired air. Then, in the case of chloroform, the amount of material capable of combining with the oxygen is quite insufficient to rob the blood of its oxygen; and, lastly, "to increase the amount of oxygen in the respired air does not prevent the action of the narcotics."

In confirmation of the same view, I may refer to the result of Dr. George Harley's experiments, by which he has shown that a mixture of chloroform, alcohol, morphia or other narcotic substances, with the blood out of the body, lessens the amount of oxygen absorbed, and of carbonic acid given off, when the blood is shaken up with the atmospheric air.

If now we take a more extended survey of the subject of anæsthesia, so as to include all cases in which unconsciousness results from disease, or accident, or well-designed experiment, we shall find a number of facts all pointing to the conclusion that, however diverse may be the remote causes of anæsthesia, the immediate cause in every instance is a suspended or diminished oxidation of the nervous tissue.

In order that the nervous tissue may receive the supply of oxygen which is required for the discharge of its functions, there must be a free circulation of oxygenised blood. The blood, in moving through the capillaries, undergoes a rapid change of composition. In the pulmonary capillaries, it gives out carbonic acid, and takes in oxygen; and, in so doing, it changes from black to red. On the contrary, in the systemic capillaries, it exchanges oxygen for carbonic acid, and again becomes dark in colour. Each particle of blood, as it passes through the systemic capillaries, gives up its oxygen in a moment, and thus, of course, loses its power of imparting oxygen to the tissues. Therefore an arrest of the capillary circulation through an organ immediately suspends the oxidation of its tissue; and, if that organ be the brain, loss of consciousness is an inevitable result. Stagnant blood in the capillaries can no more maintain the functions of the brain, than stagnant air in the lungs can maintain the process of respiration. In this way, then, we explain the loss of consciousness in *syncope* and in *epilepsy*. In syncope, the heart's action fails, and the circulation ceases more or less completely; and in the same proportion there is a more or less complete loss of consciousness. In epilepsy, as is now generally admitted, the arrest of the cerebral circulation is due to a sudden and extreme contraction of the minute arteries of the brain; and the phenomena of the disease may be exactly imitated by a rapid and copious hæmorrhage, or by ligaturing the arteries which supply the brain with blood.

We have another example of anæsthesia from an arrest of the circulation in the insensibility of the skin produced by extreme cold, and in the unconsciousness which Dr. Richardson produces in birds by freezing their brains. The cold stops the circulation, and with it, of course, the oxidation of the tissues. The application of cold, even before it actually freezes the tissues, lessens sensibility, probably, by checking the chemical action of oxygen. And Dr. Snow explains the drowsiness which results from exposure of the whole body to extreme cold by the diminished consumption of oxygen which is thus induced.[*]

In cases of *apnœa*, the anæsthetic condition is a result of two concurring causes. When the respiration is suspended from any cause, there is a rapidly increasing deoxidation of the blood, and a rapidly increasing impediment to the flow of blood through the lungs. Thus the oxidation of the brain; and with that its functions are suspended, partly from anæmia, but mainly in consequence of the blood being unaërated.

What is the explanation of the anæsthesia which often results from *cerebral hæmorrhage?* It may sometimes be explained by the interrupted circulation through the brain-tissue caused by the pressure of a large clot, or by arterial contraction excited through a reflex nervous influence. Far more frequently, I believe, it is a consequence of the apnœal condition which results from the influence of the brain-mischief upon the respiratory movements.

The most unequivocal examples of anæsthesia resulting from the circulation of unoxygenised blood are afforded by the inhalation of *protoxide of nitrogen*, and of uncombined nitrogen, as lately practised by Drs. Sanderson and Murray. It can scarcely be doubted that both these gases act as anæsthetics simply by taking the place of the normal oxygen in the blood; and thus they suspend the oxidation of the brain-tissue. There is no reason to suppose that the inhalation of these gases is associated with an accumulation of carbonic acid in the blood.

Lastly, we come again to the anæsthetic action of chloroform, ether, alcohol, opium, etc., the explanation of which has already been given, in accordance with the observations of Dr. Snow. In general terms, then, it may be said that unconsciousness or anæsthesia is a result of defective oxidation of the nervous tissues. This defective oxidation may have for its cause—1, an interrupted circulation of blood, the circulating blood being the vehicle by which the oxygen is carried from the lungs to the tissues;[†] 2, a circulation of unoxygenised blood; or 3, a mixture with the circulating blood of certain narcotics which prevent the union of its oxygen with the tissues. In confirmation of the view that narcotics lessen oxidation, I would refer to the well-known fact that opium checks the secretion of bile; so that, as a result of its administration, we often get clay-coloured stools. This is intelligible, if we bear in mind that bile is a product of oxidation, and that opium lessens oxidation. The clay-coloured stools which result from a dose of opium are analogous to the rice-water stools of cholera-collapse, in so far as the scanty secretion of bile is a consequence of defective oxidation, although the cause of the defective oxidation is very dissimilar in the two classes of cases: in the one, a scanty blood-stream through the lungs, and a consequent partial apnœa; in the other, the mixture of a narcotic with the blood.

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[*] "The flame of mammalian life, like the flame of inorganic combustion of CH, can only be sustained at a high temperature; a certain reduction is as fatal to the one as it is to the other in the Davy lamp, and the vitality of the more exposed peripheral is more easily depressed than that of the more protected central nervous system."—Professor Rolleston's *Address in Physiology*.

[†] Since this paper was read at the meeting of the Association at Oxford, Mr. Moore of the Middlesex Hospital tells me that he has lately treated a popliteal aneurism by pressure on the femoral; and that the interrupted circulation thus occasioned caused, for a time, complete loss of sensation in the leg below the knee.

CLINICAL NOTES
OF A
CASE OF MALIGNANT DISEASE OF THE FEMUR IN WHICH AMPUTATION AT THE HIP-JOINT WAS SUCCESSFULLY PERFORMED.

By EBEN WATSON, M.D.,
Lecturer on Physiology in Anderson's University; and Surgeon to the Royal Infirmary, Glasgow.

THE complete recovery of a patient after such a severe and commonly fatal operation as amputation at the hip-joint, is a very natural source of gratulation to the operator, and may fairly warrant his publication of the case as an encouragement, and perhaps even, in some respects, as a guide, to other surgeons. I shall hope that my case may serve these good ends; but my chief object in relating it is to contribute something to the better understanding of the pathology of malignant disease of the bones, a subject which, notwithstanding the valuable writings of Stanley, Paget, and others, must be considered as still surrounded with much obscurity. If anyone thinks this statement too strong, I would only ask him to read the accounts given by the best authors of such morbid states as have been named osteo-sarcoma, spina ventosa, cancer of bone, osteoid cancer, malignant osseous tumour, etc., and let him try to draw the line of distinction between them. He will certainly find it difficult, perhaps impossible. Thus Dupuytren tells us that "the vagueness which still exists as to what is to be understood by the word spina ventosa, an expression both barbarous and ridiculous, is such that many writers of great merit have described as examples of the disease true exostoses or hyperostoses with thinning of the osseous tissue, while others have confounded this disease in all its stages with osteo-sarcoma." Yet I do not think that Dupuytren has been much more successful than others in drawing a very definite line of distinction between osteo-sarcoma and what he would accept as spina ventosa. In short, after having studied the matter somewhat carefully, I have come to the conclusion that under the above mentioned names authors have described two, and only two, kinds of malignant disease affecting bone. One, which may be called the hard kind, is the osteoid cancer of Müller, well described by him, and also by Stanley, and still more clearly by Mr. Paget. In it, the tumour consists chiefly of bony matter, mixed with a softer cancerous substance, the former greatly predominating, so that the tumour has a very firm and resistant feeling, and is often nodular on its surface. I have, in the living subject, seen only one case of this lesion affecting the femur. The other form of malignant disease, to which I referred, and which I think has been variously named spina ventosa, osteo-sarcoma, malignant osseous tumour, and sometimes osteoid cancer, is true medullary cancer in the bone, expanding its shaft to a mere shell or net-work of bony matter, and having a host of spicula or processes of the same filagree nature in its interior, so that, after maceration, a most beautiful reticular expansion of the bone is seen, just like ossified areolar tissue. The interstices during life are filled with cancer-cells and fibres, with more or less abundant juice, instead of the natural medulla of the bone. The great peculiarity, however, of the soft cancer of bone is, that it not merely expands the shaft of the bone, but that its fibrous stroma becomes likewise ossified. In no other way can we account for the mass of osseous matter in the skeletons of these cancers, or for the occurrence of spicula of bone in the morbid mass, when it occurs in some other organ altogether apart from bone, *e.g.* in the lung.

I have no doubt that enchondromatous tumours, both inside and outside of bones, are often confounded with malignant disease. They are at first easily distinguished from cancers; but when softening in part, and ossification in part, have taken place, the distinction is far from being easy, either pathologically or clinically. Indeed, I have often thought that, if I had to argue for the possibility of innocent tumours taking on a cancerous degeneration, I should select these enchondromata as the best examples of such a change; and I rather think that the elements of the two kinds of tumour, now referred to, are either often mingled originally, or may really become merged together in their ultimate progress. I have found a tumour of the lower jaw, distinctly at one part cartilaginous, at another as distinctly osteo-sarcomatous, *i.e.*, composed of medullary cancer, with a skeleton of bony spicula standing out into it. The clinical process of the case was in accordance with its malignant degeneration.

The case which I am now going to relate belongs to the class of indisputably malignant affections of bone, whether it be viewed in its anatomical or in its clinical aspect. It is as follows.

M. R., aged 17 years, was admitted into the Glasgow Royal Infirmary on October 23rd, 1866. About the beginning of June—*i.e.*, about five months before admission—she first felt pain of a pricking character at the inner and back part of the left knee-joint. This pain continued with increasing severity till the end of August, when she first noticed a swelling at the seat of the pain. It was small at first, but had rapidly increased in all its dimensions, and then measured 18 inches in circumference, extending upwards from the knee-joint nearly to the middle of the thigh. The tumour was of an oval shape, and most prominent on the inside of the limb. It was smooth on the surface, and unequally elastic to the feeling—*i.e.*, in some places more, in others less elastic. The skin over it was pale and natural, except that the superficial veins were enlarged. The bones of the leg and the knee-joint were free from disease, and the femur above the tumour seemed natural. The glands of the groin were not enlarged, and there was no symptom of disease in the other organs. The patient's family history was good. Her parents were both alive and healthy, and so likewise were all the rest of their large family, except one that had died in infancy.

On the 27th, a consultation of the surgical staff of the hospital was held on the case, at which it was unanimously agreed to recommend amputation; and, after some conversation, it was left to the operator to decide whether to amputate at the hip-joint, or to divide the femur high up.

After some natural hesitation, the patient consented to the operation. I had no doubt as to the nature of the disease. The shape, size, and feeling of the tumour; its position, and the freedom of the joint from any morbid lesion; the rapidity of its growth and the character of the pain felt in it; the paleness of the skin over the tumour; and, in fine, the absence of any known cause of its origin, seemed to me to leave no room for hesitation as to its being malignant disease of the femur. On the other hand, the freedom of the inguinal glands from perceptible taint, and the excellent general health and condition of the girl, induced me to think favourably of the probable result, if the entire bone affected by the disease were speedily removed. Indeed, it was my opinion that such removal was the only operation which held out any chance of ultimate recovery. Still, looking at the great fatality of amputation at the hip-joint, and also at the length of bone apparently sound between the tumour and the joint, I made up my mind to a sort of exploratory operation, which, I have since found, was long ago recommended by Abernethy as the best mode of amputating through the hip-joint; but for what precise reason he gives the recommendation I do not know, unless it were for greater ease in compressing the vessel on the os pubis during the operation. This certainly was not my reason, as now-a-days there need be no anxiety on that score.

On October 31st, the patient having been put under the influence of chloroform, the abdominal tourniquet was applied, and very efficiently managed for me by Professor Lister. I then placed the patient well forward on the table, and with a long amputating knife I cut first an anterior and then a posterior flap, as high up in the thigh as I could. and sawed through the bone about an inch below the trochanter major. I had previously arranged that the morbid parts thus removed should at once be laid open, and the bone sawed through longitudinally to expose its medullary cavity. This was therefore done while I was securing the vessels, which I did by ligatures in the usual way. A rapid glance at the now fully exposed morbid parts, which will afterwards be described, satisfied me that the whole cancellar cavity was full of the morbid matter, and I therefore proceeded to complete the operation by moving the head of the femur from its cavity. This was accomplished with the greatest ease in the following manner. I seized the cut end of the bone with bull-dog forceps, and turning it inwards, cut the muscles attached to the great trochanter; then, depressing the bone, I opened the capsule and turned out the head of the femur, dividing the ligamentum teres, and so severed the other structures attached to the posterior aspect of the neck, and to the trochanter minor. There was no additional bleeding caused by this part of the proceeding; and in fact, during the whole operation, no more blood was lost than is usual at any amputation through the thigh. This, I think, shows the great advantage we now possess for these operations in having the abdominal tourniquet, which most effectually restrains arterial bleeding, though perhaps it causes some venous hæmorrhage, owing to its unavoidably pressing on the vena cava as well as on the aorta. But of course, as it may be dispensed with as soon as the chief arteries in the stump are secured, this venous hæmorrhage is of short duration. The flaps were now brought together by sutures of silver wire. They fitted well and easily without the slightest tension, and left the wound quite on the anterior margin of the stump. Loose water-dressings were applied, and the patient was then removed to bed, having been on the table not quite half an hour, including the time occupied in bringing her under the influence of the chloroform.

On examination of the diseased limb, I found that the soft parts were pale and attenuated, but not otherwise changed. The enlargement of the femur, when stripped and isolated, was found to occupy rather more than the lower third. The rest of the shaft was of normal size and appearance externally. The structures of the knee-joint, and the articular head of the femur, were free from morbid action of any kind.

The tumour, viewed externally, seemed to be an oval expansion of the shaft of the bone. The periosteum could be dissected along the shaft, and on the surface of the tumour. It was there found to be thickened, and so incorporated with the tumour, as to be inseparable from it. The tumour itself consisted of two parts; a hard part or skeleton, and a softer part included in the other.

1. The hard part, after maceration, was seen to be a reticular expansion of the shaft of the bone. It was not a complete case for the contents, but had in its sides numerous imperfections of different sizes. Its most solid parts were not plates, but more like net-works of bony matter, full of minute perforations. The interior of this retiform envelope was partitioned into numerous cavities of various sizes by processes of a similar description. Their direction was irregularly parallel to the axis of the bone; they seemed to me to be its altered layers, expanded, perforated, and separated from each other. To these was added the cancellar structure, originally contained in the medullary cavity of the bone. It was altered in the same extraordinary manner, and probably formed most of the numerous transverse partitions found in the interior of the skeleton. When minute spicula of this skeleton were examined under the microscope, it was found to be very dense. Few, if any, regular canaliculi or lacunæ could be detected in them, and they seemed to me to be composed very much of the carbonate and phosphate of lime, almost wholly destitute of arrangement and of animal matter.

2. The soft substance contained in the interstices of this peculiar skeleton was of the consistence of flesh, or rather, I believe, it might be more accurately compared to œdematous areolar tissue. It was vascular, and, when fresh, reddish yellow in colour. It protruded through the numerous openings of the bony envelope, and was incorporated inseparably with the thickened periosteum of the femur. Internally it seemed rather to be entangled in, than organically adherent to the skeleton. I could not trace the medullary membrane of the cancellar cavity from above into the tumour, and I thought that the skeleton was devoid of any such membrane internally. When examined under the microscope, its structure was seen to be in part fibrous, and in part cellular. The fibres were very fine and arranged in a net-work fashion. The cells were floating in a transparent juice, and were of very various shapes, chiefly modifications of the oval form. Some of them had more than one nucleus, and a good deal of granular matter was floating free in the fluid. In short, all the elements were present in the soft part of the tumour, which are usually found in a medullary cancer, with perhaps rather a greater abundance of fibrous stroma than usual.

The cancellar cavity of the bone above the tumour was in a very peculiar state, and one which I think is very worthy of note. At first sight it seemed to be filled with a bright red matter, just of the colour of arterial blood, except at one part about half way between the tumour and the head of the bone. At this part, for about two inches, the medullary fat was present, but was unusually pale in colour, so as to contrast most remarkably with the red substance just mentioned. The latter had wholly replaced the marrow in all other parts of the cancellar structure, even in the head of the bone itself; where, it ought to be remarked, the cancelli were almost obliterated by new bony growth, rendering the head nearly solid. The red matter when taken between the fingers was felt to be quite gritty, and was easily compared to blood with bone-dust in it. This idea was confirmed by examination under the microscope; only in the bloody juice were to be seen similar oval cells to those formerly mentioned as occurring in the softer part of the tumour, and which were half as large again as the red blood-corpuscles. It must not be supposed, however, that this red juice was really blood. It was rather a thin red pulp, which might be imitated by hæmatine stirred in serum.

Now, if I had determined upon amputating through the shaft of the femur above the tumour, I should very likely have cut the bone at the place where there was normal medulla, and thus have been deceived as to the removal of the diseased part; the upper portion of the bone being as decidedly diseased as the lower. I think, therefore, that this case amply confirms the opinion now held by most surgeons, that, in all cases of malignant disease of the bones, the only safety for the patient is in the entire removal of the bone affected; and, although I held this opinion strongly before operating in the present case, yet I have no reason to regret having acted in the tentative way that I did; for I am quite certain that the second part of the operation did not add in the least degree to the shock of the whole. Indeed, so easily and safely was it accomplished, that one of my colleagues afterwards remarked to me that he should feel inclined always to operate in the same way, even though not led to do so by the nature of the case; and, as I have had occasion in one other case to amputate the whole limb at the hip-joint by the ordinary single operation, I may state that, though the latter can be performed more speedily, yet it is not at all easier, and perhaps not better, than the double operation of Abernethy.

To return to the history of the present case, my patient rallied well, and, though she remained sick and squeamish from the effects of the chloroform for two or three days after the operation, yet she was easy and on the whole well. She slept soundly at night and took a moderate quantity of light food. Her bowels were moved by magnesia, and by the third day she had recovered from her sickness. Her pulse ranged from 90 to 100 in the minute. The ligatures came away easily in due time with very little suppuration, and the stitches were gradually removed, either to permit free egress to the pus, or as they became useless from the healing of the wound.

About a fortnight after the operation, when the wound was rapidly healing, an abscess of some size formed over the crest of the ilium. It was freely opened and healed kindly. She was then allowed a little wine, which she had not hitherto taken regularly; and she very rapidly improved in general health.

On December 20th—*i.e.*, twenty-one days after the operation—the wound was so far healed, that the patient was lifted out of bed into an easy chair on wheels, and repeatedly drawn round the ward, greatly to her delight. The wound was soon thoroughly cicatrised, and the stump was as perfect as any one could wish. It was sound and well formed. The wound was entirely on its anterior aspect, and the face of the stump was formed of the strong skin of the hip, so that she could very soon bear considerable pressure on it.

In the early spring, she was sent to the Convalescent Home at Bothwell, where she remained for a time; and, on her return to the Infirmary, she was fat and well-coloured, the very picture of good health and spirits. I now instructed Mr. Hilliard to have an artificial limb prepared for her—some charitable friends having subscribed the sum requisite for that purpose; and, while casts and other preparations were being made to this end, she twice resided in the Infirmary, for about a fortnight each time, returning again to the house at Bothwell. On both these occasions, I am sure she was in good health, and that she was so when she last left the Infirmary, about the middle of April 1867. Greatly to my grief it was, therefore, when on May 17th following, I was informed that my poor patient had been seized with sudden illness, and was then dying at her father's house in Hamilton, whither she had been sent from the Bothwell Home.

I went up to Hamilton that same afternoon, and visited her. She told me that she had not been ill more than a fortnight. On a bright sunny day, but when a cold east wind was blowing, she had gone out into the little garden round the house, and, not being able to use her crutches well, she had been induced to sit too long upon a seat. She had thus caught cold, and, on returning to the house, she shivered and became feverish. She then complained of pain in her right side, and had a short hacking cough with scanty expectoration; in fact, the usual symptoms of acute pneumonia. Soon afterwards she was seized with extreme breathlessness, so that she was unable to lie down in bed, and this was still her great complaint. I found her propped up in bed. She said she had no pain, no cough, no expectoration, only she could not take a satisfactory breath, and in consequence, her face was pale and her lips livid. Her expression was anxious, her pulse was rapid, and its beats were unequal in strength.

On inspection of the chest, the left side seemed somewhat larger than the right (I did not measure). On neither side was there any bulging of the intercostal spaces. The ribs moved very little during respiration, and this was explained by further examining with the stethoscope, and by percussion. The signs thus elicited were those of complete consolidation of the right lung, in which I did not hear even bronchial sounds. The left lung was in a similar state anteriorly; while behind, in the scapular region, the respiratory murmur was heard, obscured by loud bronchial gurgles. The lower parts of both sides were quite dull, and apparently filled with fluid.

The patient was not reduced in flesh; the stump was sound and healthy; there were no enlarged glands in the groins, and not the slightest appearance of cancerous cachexia.

From all these circumstances, I confess I was led to believe that my patient was not suffering from a more incurable disease than acute pleuropneumonia, and that, though very dangerously ill, she was not quite in a hopeless state. At all events, I determined that she should have the chance of treatment on this theory carried out with proper caution. I, therefore, recommended calomel and opium with appropriate cordials, intending to follow them up with blisters, when the strength was a little recruited. The medicines were given, and, I believe, somewhat soothed the patient; but she suddenly expired three days afterwards, May 20th, having lived a few days less than seven months after losing her limb.

On May 23rd, assisted by Dr. McGibbon and Dr. Moore, I inspected the body. There was a considerable quantity of bloody serum in each pleura. The right lung was contracted to nearly one-half its normal size, and changed into a solid fleshy mass, very like a large compressed clot of fibrine, without any apparent trace of lung-substance at all. On section of this mass, the knife grated on some hard particles, which were found to be spicula of bone, and which pervaded the mass abundantly. I carefully examined parts of this transformed lung, under the microscope, and found that they consisted of a multitude of fine and closely packed fibres, with numerous cancer-cells floating in juice around them. Similar cells were found in the fluid taken from the pleuræ.

In the left lung, the disease had not proceeded so far as in the right. There were several large nodules of cancerous matter, containing spicula of bone, in the anterior part of the lung; but, at the back, the pulmonary tissue was little affected. It was only congested, and its bronchial tubes were filled with thick mucus.

I may add, that the greater part of the morbid mass described above, is now preserved in the Pathological Museum of the Royal Infirmary, and is a good example of the somewhat rare occurrence of osteoid cancer in the lungs. Of course, in this case, it was a secondary affection, having existed primarily in the femur; yet it seems strange that the girl was apparently in perfect health a fortnight before her death, and that she had none of the usual marks of the cancerous cachexia even at the last. I cannot but think that she was really quite free from appreciable disease, at the time referred to; and that, after an ordinary exposure to cold, she was seized with acute pneumonia; but that the exudation then thrown out into the lung became rapidly cancerous from some inexplicable abnormity of the blood, which had been latent until that time. How the disease resumed its original type, and how it increased so very rapidly as to kill the patient by positive destruction of great part of the respiratory apparatus, in so short a period, while the stump, and other parts in the neighbourhood of its former outbreak, remained perfectly sound and healthy, I have no ground even for a conjecture.

ON THE CONSTITUTIONAL ORIGIN OF SOME AFFECTIONS OF THE DEEP TISSUES OF THE EYEBALL, ILLUSTRATED BY THE OPHTHALMOSCOPE.

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In a paper upon the Ophthalmoscope, which I read before the Liverpool Medical Society nine years ago, and which was afterwards published in the *Liverpool Medico-Chirurgical Journal*, the following sentence occurs. "The simple invention, therefore, of the professor of Königsberg, bids fair to open up a new era in the diagnosis of some of the obscurer forms of eye-disease, and to impart to our knowledge of their immediate causes somewhat of that clearness and precision which the microscope has done with regard to diseased structures in other parts of the body." I scarcely need to say how amply this anticipation has been fulfilled. Earnest and zealous labourers at home and abroad have indeed achieved marvellous triumphs by the aid of this instrument. Light has been thrown upon much which was previously dark and unseen. What were formerly matters of conjecture can now be regarded as well-established facts; and, touched by the "Ithuriel spear" of the ophthalmoscope, diseases have started from their dark recesses in the hidden textures of the eyeball, and been made to yield up their features in minutest detail to the practised observation of the physician and the skilful pencil of the artist. To be enabled thus to localise and depict disease is no mean attainment; and, when we consider the bearing which these discoveries have upon practice, the result is still more remarkable. Causes of defective sight, various in their character, and allied with textures in the eyeball the most dissimilar, which were formerly grouped together under the general and unmeaning name of amaurosis, can now be clearly distinguished from each other, and referred to the tissue with which they are immediately connected. Diseases, also, affecting the general system, as gout and rheumatism, and more especially syphilis, are now found to exert their baneful influence upon the hidden as well as on the visible structures of the eyeball; and even affections of the brain itself, there is good reason to believe, impress the evidence of their existence upon the nervous tissue of the disc and retina.

These prefatory remarks seem not inappropriate to the following details, which have been suggested by an observation in Mr. Macnamara's *Lectures on Diseases of the Eye*, a work which, I think, has not hitherto, in this country at least, received the attention which it merits. In these lectures he dwells especially upon the use of the ophthalmoscope, in elucidating the various causes of defective vision which cannot be thoroughly appreciated by any external sign of their existence. In Lecture IV, at page 83 of the volume, he says: "Opacities and other degenerative changes in the vitreous are, however, by no means always the result of syphilitic disease, but occur in connexion with *a general impairment oj nutrition and poverty of the blood.*" In illustration of this statement, he gives some cases in detail, and mentions, as one of the ophthalmoscopic signs, the following appearances. "Occasionally, colourless flocculent bodies are seen stretched across the vitreous chamber, like a thin veil in front of the retina. These consist probably of the cellular structure of the vitreous, rendered opaque by degenerative changes, its nuclei being surrounded by a fatty material, which is the direct cause of the haziness observed with the ophthalmoscope." I refrain from any remark upon the opinion which Mr. Macnamara expresses as to the cause of the appearances in question, except to say that it is not unlikely the true one. But, be that as it may, the following cases seem to illustrate the condition of the general system to which he refers, and they presented appearances in the deep textures of the eye very similar to those which he describes. Before giving the cases in detail, I may say that I had repeatedly observed the gauzy haziness deep in the eye, as revealed by the ophthalmoscope, before meeting with Mr. Macnamara's book, and had observed also that it occurred in persons generally of feeble vital power; but I was unable to refer the opacity to any individual tissue, and Mr. Macnamara's remarks, therefore, struck me forcibly, as throwing additional light on what I had hitherto regarded as a puzzling question. Of the five following cases, two are of special interest, as exhibiting not merely the symptoms, constitutional and local, of the condition in question, but also the improvement consequent upon the adoption of the tonic treatment recommended by Mr. Macnamara, and which the state of the patient clearly indicated; two others, marked by the same symptoms, I lost sight of while under treatment, and the result cannot, therefore, be spoken to; and one is at present under my care in the Eye and Ear Infirmary, and has hitherto progressed favourably.

CASE I.—Sept. 12th, 1867. A. G., aged 29, unmarried, teacher in a school in the Isle of Man, of medium height, moderately stout, pale complexion, and rather delicate aspect, three years ago caught cold from being wet, and had never felt so well since. About six months ago, she thought that something entered into the left eye, which affected vision. She came hither, and underwent some treatment at the Eye and Ear Infirmary, but the sight continued to decline. At present, she was able to read the large type of a newspaper for a short time only, prolonged attention inducing pain and indistinctness of sight. When placed with her back to a window, while I stood before her and very near, she was able to distinguish my features, but at half the breadth of the room, which was of moderate dimensions, she saw me very indistinctly. On looking at a candle or gas-light, it appeared dispersed and broken, and dark in the centre, and she was unable to indicate exactly the position of the light. Her general health was said to be pretty good; but the catamenia were more frequent than usual with her. In the *right eye*, the pupil was closed—the result of inflammation in early life. It was operated upon for artificial pupil in London nine years ago; but she merely distinguished light and shadow. On examining the *left eye* with the ophthalmoscope, the pupil dilated, the disc was dimly discerned through a gauzy veil of opacity, which covered the entire area of the pupil. This veil appeared to be thickly sprinkled over with minute opaque specks, not unlike a sheet of oiled tissue-paper dusted with black pepper. She thought that vision was improved by the dilatation of the pupil. This patient was put upon a tonic plan of treatment—the perchloride of iron and good diet, with an occasional alterative pill, equal parts of blue pill and the aloetic; and, when I last saw her, September 16th, previously to her return home, I advised cold affusion to the eye several times daily. Some weeks afterwards, I heard from her that her sight was much improved; and more recently I received a note dated February 4th, 1868, in which the following sentence occurs: "My eye is wonderfully better; I can use it quite nicely now Still it is not well; but, before the midsummer holidays, I trust it will be perfectly restored. I still use the belladonna-drops, and take the iron medicine." Not having had an opportunity of examining this patient's eye again, I cannot speak as to what improvement has taken place in the ophthalmoscopic signs; but no doubt the gauzy haziness must have lessened considerably, or she would not have been able to use her eye as she describes.

CASE II.—Dec. 19th, 1867. A. M., aged 19, a girl of colour, rather short, spare, and somewhat delicate in appearance, was employed in a cap-manufactory, in a department which was not trying to the sight. Her general health was said to be good. A fortnight before I saw her, she first noticed dimness of the *left eye*, which continued ever since, but was said to vary in degree. On the morning of Dec. 19th, she observed the appearance as of a star before this eye in rapid rotatory motion, which had not been seen before. The *right eye* was healthy. Examined with the ophthalmoscope, the pupil partially dilated, a filmy minute globular opacity was distinguishable in patches, obscuring the view of the disc, and rendering vision dim, especially of objects situated beneath the level of the pupil. This patient was also put upon a tonic plan of treatment—cinchona, with the liquor hydrargyri bichloridi; also an occasional alterative pill, and the cold affusion, as in the former case. She very soon began to improve in sight; and on January 27th, 1868, when examined with the ophthalmoscope, the opacity was found to have entirely disappeared, the disc was distinctly visible, and vision was stated to be as good as ever.

The next two cases may be briefly disposed of, as I cannot speak as to the result of the treatment employed.

Case III.—May 1867. Mrs. R., aged 26, about medium height, pale complexion, dark hair, and feeble aspect, said that she felt weak, and had suffered a good deal of mental anxiety. Her father died of consumption when she was an infant. Her sight had been failing for several months past, and all objects appeared as if seen through a smoky medium. Vision with the *left eye* (which, I presume, was the only one affected, although it is not stated in my notes) was so defective that she could not distinguish my features. Examined with the ophthalmoscope, the pupil dilated, the disc was distinctly visible through a fine gauzy film, which presented the appearance as of dust sprinkled upon a transparent surface. At the inner side of the disc, close to the base, there was a small linear-shaped black opacity. For this patient I prescribed the citrate of iron and quinine, three grains thrice daily, and good diet, with some wine; rest of the eyes, especially at night; avoidance of fatigue; and the use of blue tinted glasses. As I did not see her again, I hope the means employed were beneficial.

Case IV.—Nov. 1866. Henry Reid, aged 33, engineer, and married, of medium height, moderately stout, light hair and eyes, rather feeble aspect, said that he had fever in Calcutta four years ago, and was ill for about two months, but did not think that his sight was affected after he recovered. However, he had never felt so well since. A little extra work made him "nervous and shaky, out of breath, and fatigued." He did not appear to have had any venereal affection, or to have taken mercury. He complained of dimness of sight in the *left eye*, of one month's duration; but said that it attained its present condition in the course of a week. Placed with his back to the light, he saw me rather indistinctly with this eye; there was a general cloud over the field of vision, darker towards his left hand. He was able to make out the heading of a newspaper, but nothing more, the letters appearing as if seen through a gauzy veil. In looking at the sky, he observed numerous dark specks gathered round a form which moved slowly about, and the same appearance was noticed in looking at a white surface, as paper. Examined with the ophthalmoscope, the disc in the left eye was very dimly discernible through a gauzy veil, with opaque striæ crossing it, and some opaque spots upon it. I gave this man cinchona, with liquor hydrargyri bichloridi, but cannot speak as to the result, not having seen him again.

Case V.—March 24th, 1868. Joseph Austin, aged 36, a tailor, had been a fortnight under treatment in the Eye and Ear Infirmary. He was of medium height, spare habit, and rather exhausted appearance. He said that he had been a good deal addicted to the intemperate use of strong drink and tobacco; and, during the last six months, had often been without a sufficient supply of food, from inability to work at his trade. He had never been able to see well with the right eye; the pupil was contracted, irregular, and filled with lymph, to which the iris was adherent; and he merely distinguished a very bright light. Vision had been in this state for ten or twelve years past. About four years ago, on getting out of bed one morning, he found the sight of the left eye to be indistinct, and he was unable to thread a needle. He had been indulging in strong drink for some days previously. The sight continued defective for about a year, so that he was unable to work, when it partially recovered, and he resumed his trade during four months, when it failed again, and he was idle from necessity during five or six months. After this, vision again improved, and he worked for some weeks; but during the last six months he has not been able to use his eye for more than one or two hours at once; after this, the sight became confused, and he missed his stitches. He had noticed numerous muscæ, of a dark colour, floating in the air. Examined with the ophthalmoscope, in the left eye, the pupil dilated, the same gauzy film was observed, partially obscuring the view of the disc. Since his admission to the infirmary, on March 10th, he had been treated with tonics, and put upon a good diet with porter. He improved much in health and strength; and, when examined with the ophthalmoscope, three days ago, the film was found to be materially thinned and dispersed, and he was able to make out printed letters, which he could not do on admission. All objects now appeared clearer to him, the misty cloudiness that formerly obscured them having become much lighter.

Appended to one of these cases, I find a note stating that another example of the same ophthalmoscopic appearances had presented itself to me at the infirmary, affecting both eyes, but in different degrees. It occurred in the person of a workman, who had indulged much in strong drink and tobacco; but there is no further record regarding it.

And now, to sum up the matter: I do not claim very much for these cases; they have at least been faithfully narrated, and may be taken for what they are worth by those whose acquaintance with the ophthalmoscope renders them competent to judge. To me they are interesting, from the relation which they seem to indicate between a general condition of the system and a local change of structure; and I have no doubt but that, as the use of the ophthalmoscope becomes more general among the members of the profession, and a greater number of competent observers in consequence arise, we shall find these relations multiplied as regards the eye. Diseases, and deviations from health of lesser moment, which exercise a constitutional influence, and have not yet been recognised as affecting the structures of the eyeball, will probably be found to do so in a greater or less degree, and to imprint unmistakable evidence of their existence upon the delicate and many-tissued organ of sight.

NOTES AND OBSERVATIONS ON DISEASES OF THE HEART AND LUNGS.*

By THOMAS SHAPTER, M.D., F.R.C.P.,
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In the preceding papers, the sounds and murmurs emitted by the heart and arteries, viz., the audible effects of the several vibrations induced by the movement of the blood and by the disturbance and sudden arresting of its even flow, have alone been referred to. It is now proposed briefly to consider those vibrations which more particularly reveal themselves to, and are familiarly appreciated by, the sense of touch; viz., the recurring impulses and palpitations of the heart, and those recurring shocks, therefrom resulting, experienced throughout the arterial system. The impulse or beat of the heart, which, in a healthy and fairly nourished person, under circumstances of repose and in the recumbent position, is inappreciable to the touch, immediately becomes perceptible, on assuming the perpendicular position, in the space between the fifth and sixth ribs about an inch and a half to the left of the sternum. The phenomenon thus developed, though partly due to a slight tilting forward of the apex, is mainly affected by a change of shape in the heart itself, whereby it becomes rounded during the spiral contraction of its fibres. The amount of impulse, as well as the rhythmical action that characterises it, is liable, under a great variety of circumstances, to considerable and sometimes immediate modifications. The almost imperceptible beat may present the characters of an obvious blow or sharp shock, and, instead of being limited to a narrow space, may be diffused over a large amount of the parietes of the left chest. So, likewise, its rhythmical action may be notably accelerated or interrupted.

These variations in the force and rhythm of the heart's impulse are, however, in their general occurrence familiar to the observer of the action of this organ; and, as they will necessarily require much careful consideration in the sequel, when speaking of some of its disordered conditions, they need not be here further referred to. It is now proposed to pass on to a consideration of the vibrations felt throughout the arterial system, which we familiarly recognise and understand under the designation of the "pulse." When disease, with its several phenomena, is presented to us, we usually separate for special study and notation the modifications in the circulation of the blood, as evidenced in the frequency and character of the pulse. If this can be said of disease in general, it may more emphatically be said of diseases of its moving power, the heart itself; and hence, to a certain extent, the pulse has been regarded as one mode of interpreting the condition and action of this organ.

Before the adoption of the more modern means now employed in the investigation of the diseases of the heart, this was especially the case. Indeed, volumes have been written to show that the true appreciation of the pulse was an infallible means, not only of indicating the morbid conditions of the heart, but of discriminating the locality and extent of almost all other diseases. Though we may not, in the present day, thus dogmatise upon the pulse, nor attribute to it that perfect indication of diseased action, which was attempted heretofore, yet we fully appreciate the value and importance of duly observing the departures from its healthy standard, and of considering how far these may be indicative of diseased action, whether this be in the heart or in the system generally.

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* Continued from page 287 of Journal for March 16th, 1867.

In considering the phenomena and the rationale of the pulse, the physical agencies whereby the blood is transmitted from heart to heart have, since the days of Harvey, been often investigated with much assiduity; and various theories in explanation have been advanced. The difficulties attending these investigations may be appreciated by the varying and contradictory conclusions arrived at.

To some of the more prominent of these theories reference will now be made. It is not, however, necessary to enter into any minute detail of them, especially as they are to be found fully set forth in several elementary and other works. A careful consideration of the bearing of these theories will show that they may be classified under distinct heads.

1. Those that regard the pulse as due to the distension of an elastic artery, whereby its diameter is increased.

2. Those that regard the arteries as inelastic, and the pulse as due to an extension in its length, whereby a displacement or locomotion takes place.

3. Those that refer the pulse to distension of the artery, with an active contractile power superadded, so that it has a systole and a diastole of its own.

It will be observed that the above refer solely to the proximate cause of the pulse; but, in referring to the theories themselves, it will be seen that they generally comprise within these terms the remote cause also. Thus in one the pulse is stated to be due to the "impulse of the left ventricle being communicated along the arterial tube and the column of blood which it contains." (A. Thomson, *Cyc. Anat. and Phys.*, Art. Circulation.) In another the circumstances are stated somewhat more precisely, and the pulse is said to be due "to the alternate dilatation and contraction of the artery, from the impulse and comparative retardation of the wave of blood-corresponding with the systole and diastole of the left ventricle of the heart." (Haller, Richerand, Hales.)

In examining these several theories, we first see that the general weight of authority lies with the opinion that the arteries are endued with the property of contractility, and that this property is excited to action by the force of the left ventricle; and then that, with one exception, they set forth that the impulse from the heart communicates itself to the column of blood contained within the arteries. Nevertheless they differ materially as to the mode by which this is effected; thus, according to one theory a temporary dilatation of the artery is induced at each recurring influx of blood; according to another, this dilatation is followed by an active state of contraction; according to others, neither of these conditions is admitted; while one attributes the phenomena of the pulse solely to a locomotion in the artery itself. All the above recognise the moving column of blood as the medium in which is developed the phenomena of the pulse, whilst the artery is only the containing tube acted on by this medium. The theory, which is an exception to this general view, is that which refers the pulse solely to a contractile power in the arteries themselves. These several theories, as before observed, comprise both the proximate and the remote causes of the pulse; the latter being almost universally attributed to the contractile agency of the heart itself, while the former has not only been also referred to this, but likewise to other and very different agencies.

It will be useful to look particularly to these, so as to separate and define them; and in doing so we will first refer to the immediate phenomena of the pulse, and those circumstances which belong to its proximate origin, and then consider separately its remote cause, so as to ascertain the precise value, in reference thereto, of the contractile agency of the heart. In considering the nature of the pulse we may, for the sake of argument, discard all questions about the causes inducing the circulation, and look solely to those peculiar phenomena to which the term "pulse" has been given, occurring normally and periodically in the arteries; in the capillaries, under conditions of excitement or inflammation; in certain veins normally, and in others under certain forms of disease (*varix*).

Before going further it may be as well to define what, according to the best recognised authorities, the pulse is, and see if these definitions comprise all the phenomena belonging to it. The usual definition is, that it is "the stroke or beat of an artery, as recognised, for the most part, by the finger applied to the integuments lying over it" (Bostock, Allen Thomson). Other and somewhat differing definitions are that it is "a jetting movement of the blood, whereby, by dilatation and elongation (which latter is the greatest) is effected the pulse." (Kirkes, Carpenter); and "a succession of impulses or distensions alternating with the reaction or subsidence of the vessels, and felt throughout the body wherever the arterial ramifications penetrate" (Dalton).

If we regard the pulse as comprising the whole of the phenomena that take place from beat to beat, the above definitions are found to be neither descriptive nor distinctive, in as much as they do not accurately pourtray the whole of the periodically recurring phenomena attendant on the circulation of the blood through the arteries. Nor do they refer solely to the shock. Assuming the correctness of the recognised theory of the cause of this shock, and which also sets forth and accounts for that continuous wave, whereby the progress of the blood is effected throughout the whole system, they are notably incomplete. The definition of such a pulse should include the whole series of phenomena; viz., the undulating wave, the shock or sudden vibration, and the pause. The short sharp stroke or vibration occurring almost simultaneously throughout the whole column of blood is, however, peculiarly that portion of the series to which the term "pulse" is given, and to which doubtless it is not only convenient, but, as I trust in the sequel will be seen, truthful to restrict it.

In a former number of this JOURNAL (No. 296, 1st Sept. 1866), I ventured to advance the theory, that the pulse was divisible into three phenomena: 1, the filling of the artery by successive waves, through the agency of the ventricular system; 2, the vibration in the column of blood throughout the whole arterial system, caused by the sudden closure of the semilunar valves (the pulse); and 3, the contraction and collapse of the arteries during, but not caused by, the ventricular diastole. It will be the purport of the following remarks to support and illustrate this view.

The differences which characterise the above several phenomena of the circulation of the blood through the arteries, are in health sufficiently recognisable, while in disease they often become strongly marked, and thus offer indications of the utmost value in diagnosis. Following, as they do, a natural order, they occupy in their relations to each other definite proportions of time. This rhythm of the arterial circulation may be divided into five periods—one being occupied by the wave; one by the shock (pulse); and, three by the pause.

As generally confirmatory of this position, I would refer to the figures of arterial action delineated by aid of the sphygmograph (*vide* Foster, Sanderson, etc.) Though the sphygmograph may probably not be so perfect an instrument as the educated finger, it shows, by its written diagrams, sufficiently accurately the increasing tension of the onward wave, occupying one-fifth of the rhythmical time, and which culminates in the sudden vibration or shock; and it also notes the decadence of the arterial tension immediately succeeding the shock. It appears to me that, in the diagrams of the normal pulse, the period, nay, the existence of the shock (pulse) is not distinctively marked; no alteration nor sudden variation occurring in the gradually increasing tension of the onward wave, till the period of the collapse, which ensues after the tension has attained to its greatest height. The sphygmograph, under such circumstances, really marks less the pulse than the other phenomena of the arterial circulation. In certain instances of disordered circulation this exclusiveness may, however, not be so marked. By a reference to the diagrams, where the shock or pulse proper is interfered with, its rhythmical duration can, perhaps, be appreciated; and, as such, these diagrams are so far confirmatory and illustrative of the theory which I desire to propound; and they will, in the sequel, be again referred to.

Before the true nature and origin of the phenomena which constitute the pulse can be fully appreciated, it is necessary that the physical qualities of the arteries, and of the moving column of blood, in relation thereto, should be duly estimated, they being the physical media in which this peculiarity of the circulation takes place, and by which it is transmitted. As regards the arteries the questions immediately arise: 1, are they endued with elastic and with contractile powers? and 2, are they liable, where not sufficiently bound down, to displacement by the force with which the contained fluid is moving within them?

It will not be here necessary to revert to the experiments and arguments of the several exponents of each of the above views; it will be sufficient to state generally there are grounds for assuming that the arteries may be in certain positions subject to displacements by the active force of the blood, and likewise endued with elastic and contractile powers, whereby a tension of the vessel is maintained, and thus enjoy the function of "reproducing a force proportional to the degree in which they are extended beyond their natural dimensions" (Young, vol. i, p. 519). Yet it cannot be assumed that both or either of these accidents of their existence, are sufficient to explain the occurrence of the pulse. The pulse may, in fact, be originated and transmitted irrespective of any such qualities.

Is the onward wave of the blood, then, the cause of the pulse? It is to be borne in mind that this and the previous questions, notwithstanding it be admitted that an active vitality exists both in the arteries and in the blood, are to be decided by the ordinary laws which determine the phenomena of mechanical motions, in as much as the vibratile motions of the blood and of the arteries, though taking place within an animal frame, are regulated by the same general laws as the motions of inanimate bodies. Hence, though the blood, in accordance with the properties of fluids, when forced through the arteries by successive waves, exerts an amount of lateral pressure equal to that which rules its onward course, yet, it having been also granted that the artery is endued with the quality of elasticity, there exists precisely that condition, viz., the onward current of a fluid, proceeding by successive waves through an elastic tube, which militates against the wave of the onward current being transmitted as a pulse; a condition which not only interferes with the tactile appreciation of the wave of the onward current, but really tends to equalise and obliterate it. It represents, in fact, the very mechanical apparatus adapted for effectually counteracting the disturbing effects of an unequal flow, and to which all tubes which are the subject of a supply *per saltum*, without such elastic quality, would inevitably be liable. Moreover, the velocity of the transmission of the impulse, whereby a fluid is propelled through elastic tubes, is diminished by an increase of tension. Doubtless this law holds good as regards the wave flow of the blood itself, while there is no evidence that the pulse is thereby obscured or retarded; on the contrary, the greater the tension, the more decided and pronounced the pulse. Hence, we may assume that the agency of the wave, which effects the onward current of the blood, does not entirely account for all the phenomena observed in the pulse.

It has been assumed, when describing and defining the pulse, that there are evidences of a wave-like expansion and of a sudden shock or recoil, and then of the temporary, though not entire, subsidence of undulation and vibration. The arteries are, undoubtedly, the means whereby these undulations and vibrations are transmitted and made manifest, and the blood contained within them is as unquestionably the seat of them. Again, so much as the arteries are elastic, or locomotive tubes, so much may they be influenced by the pressure exercised by the fluid they contain; hence, they reveal the varying tension caused by the onward wave of the blood. Supposing this onward wave to have induced that amount of lateral pressure which places the artery in a state of tension, there then exists that condition which qualifies the artery to be the sensitive transmitter of other vibrations than those of the onward wave, which may occur amongst the particles of its contained fluid, in as much as the vibrations of a fluid within a tube will be less interfered with when the containing tube is inelastic; or if elastic, when, by means of extreme tension, it is so completely filled as to represent one that is inelastic.

In the elasticity of the artery there exists the conditions, not only of resisting injury from the sudden pressure of the onward wave, but likewise of facilitating its transmission, while in its full and tense state, when this wave is at its summit, it offers conditions of being the ready transmitter of such vibrations, other than those of the onward wave, which may take place in its contained fluid, and this fluid, as being incompressible and inelastic, is the easy recipient of any vibrations to which it may become subject. It is not improbable that, as regards the artery and the blood (separate from the moving power, the heart), the above comprise the only conditions really necessary for the perfect development and transmission of any vibrations which may take place in the one, or be revealed by the other.

The artery then presents the conditions both of an elastic and an inelastic tube—the one, capable of equalising the sudden propulsions of the wave of blood, and the other, of transmitting vibrations occurring in its contained fluid other than those of its propelled wave; while the blood presents, on the one hand, a wave-flow, and, on the other, enjoys the usual qualities of a fluid, of being the easy recipient of vibrations. We will now briefly examine how far the phenomena, observed to take place during the rhythmical flow of the blood, are referable to either or to both of these conditions.

The obvious properties of the heart are its systole and its diastole, and it is to its systole that the circulation of the blood through the arteries is immediately due. By this function the whole, or perhaps only a certain portion, of the blood contained in the ventricle is expelled into the artery; and it is assumed that the moment at which this takes place corresponds with the pulse in the artery. Be this as it may, the propulsion of the blood through the arteries is associated, either at the moment of the systole of the ventricles, or at some other moment, with certain obvious phenomena to which the term "pulse" has been given.

Doubtless, the systole of the ventricle and the emission of blood thence proceeding, satisfactorily accounts for the circulation; but does it as conclusively account for all the phenomena of the pulse? It has generally been assumed that it does; and Young, in his learned and elaborate paper on the functions of the heart and arteries, seeks to show from the experiments made by himself, Hales, Poisseuille, and others, that such an assumption may be demonstrated as a mathematical truth. In the course of his observations (p. 519), he says:—"The successive transmission of the pulsations of the heart through the length of the arteries, is so analogous to the motion of the waves on the surface of water, or to that of a sound transmitted through the air, that the same calculations will serve for determining the principal affections of all these kinds of motion; and, if the water which is agitated by waves is supposed to flow at the same time in a continued stream, and the air which conveys a sound to be carried forward also in the form of a wind, the similitude will be still stronger."

It will be observed that, in the above, Dr. Young refers to two sets of phenomena, viz., flow, and vibration superadded thereto; and it is to this distinctness of phenomena taking place throughout the arterial system, during each rhythmical movement of the blood, that investigation is now directed. Though the phenomena of the circulation and of the pulse are coexisting, it does not follow, arguing *à priori*, that they are necessarily due to the same cause, or have precisely the same identical origin. The free circulation of a fluid through a tube, whether it be *per saltum*, or not, may be effected without being accompanied by the phenomena of a pulse. Hence, the circulation of a fluid is not dependent on the causes that induce the pulse. As regards the cause of the occurrence of this latter, several questions present themselves, the more prominent of which are:—Is the pulse a phenomenon, attendant upon and caused by the onward wave in a moving fluid? or is it a vibration only through its several particles? or is it a vibration superadded to, or distinct from, the onward wave? or, can it be produced without this fluid being a circulating or moving one? It has already been shown, when referring to the physical qualities of the arteries and of the blood, that there exist grounds for concluding that the vibrations of the onward wave do not comprise the whole of the vibrations that take place within the artery. In examining the above questions, it will be necessary to ascertain if this really be the case.

It has generally been considered, that the wave of blood discharged at each systole of the ventricle fully accounts for the pulse; and there have been many experiments made and much argument adduced, to prove that it is so. Those of Dr. Young are the most comprehensive. "It may be supposed" (he says, p. 214) "that the heart throws out, at each pulsation, that is about seventy-five times in a minute, an ounce and a half of blood; hence, the mean velocity in the aorta becomes eight inches and a half in a second; and the velocity in each of the succeeding segments must, of course, be smaller in proportion, as the joint areas of all the corresponding sections are larger than the area of the aorta." In another place, he says (p. 519), "that the velocity of the pulse must be nearly the same as that of an impulse transmitted through an elastic tube, under the pressure of a column of the same height as that which measures the actual arterial pressure: that is, equal to that which is acquired by a heavy body falling freely through half this height. In man, this velocity becomes about fifteen feet and a half in a second, to which the progressive motion of the blood itself adds about eight inches; and with this velocity, of at least sixteen feet in a second, it may easily happen that the pulse may appear to arrive at the most distant parts of the body, without the intervention of any very perceptible interval of time." In considering the above, we see that two circumstances are detailed; the one, the progressive motion of the blood, which in the aorta is estimated as having a mean velocity of eight inches and a half in a second; and the other, the mean velocity of the pulse, which is estimated at about fifteen feet and a half in a second.

Assuming the correctness of the above, it is obvious that the circulating wave of the heart is not sufficiently rapid to account for the simultaneous pulse exhibited throughout the arterial system. The one, or may be two, ounces of blood forced into the arteries at each contraction of the ventricle is obviously, *per se*, inadequate to effect so universal and instantaneous a vibration. Nevertheless, it is here necessary to state that there is a great discrepancy between the calculated, and, from experiment, the inferred velocity of the calculation. Hering inserted prussiate of potass in one jugular vein of the horse, and detected it in the other in twenty seconds, and hence inferred that the whole circulation of the blood only occupied this short space of time. This experiment, the more especially as the viscidity of the blood exhibits a resistance four times greater than that of water, offers evidence of a most mysterious fact in the ordering of the animal economy, but, as regards the physical origin of the pulse, it has little or no bearing. Though the blood may traverse the system in this incredibly short space of time, it would not account for the production of the pulse, synchronous as this is throughout the whole course of the arteries.

Moreover, in the history of the circulation, there exist a large number of facts which show the pulse to be a measurer neither of the quantity nor of the speed of the blood; for often, most often indeed, th frequent and throbbing pulse is associated with an enfeebled circulation, and a lessening in the amount of the blood circulated: nor is it an indicator of the *vis a tergo*—of the force of the heart's action; for the pulse may be feeble while the action of the heart is violent and excessive. The position that the pulse is a measurer neither of the speed nor quantity of blood circulated, nor of the power of the heart, is most evident when, assuming that the ventricle discharges the whole of its blood at each systole, it is considered that a pulse at 120 would, over a pulse at 60, exhaust the labour of the heart by the square of the result. That the onward wave of the circulation does not constitute the pulse is evident, from the fact that, if a ligature be applied to an artery, the vibration of the pulse is felt both at the proximate and the distant ends of the vessel, where so tied, though the blood at these points forms no longer a portion of the moving fluid. The circulation is arrested, but the pulse continues.

The pulse is also felt more extensively in some cases in which the circulation is materially diminished, as where the blood becomes inspissated; or it may be even rendered more obvious and largely diffused, though the onward wave must be, comparatively speaking, disguised, or even lost entirely, as in an aneurismal dilatation. Here a fibrinous mass, which may scarcely admit a flow of blood through it, communicates on every side a hard and exaggerated pulse. The same may be observed when an artery is ossified, or overlaid by a dense material, as also in those circumstances where elasticity compensates for, and obliterates, the shock of the onward wave; as occurs in the trunk artery and its larger branches, which offer but little external evidence, by expansion, of the onward wave, but freely communicate the vibrations of the pulse. The vibrations of the pulse are otherwise seen to be independent of the forward wave, for velocity in this may differ in different arteries, while the pulse retains its synchronous action. Again, where inflammation has induced a state of local congestion, the pulse may be, in the arteries concerned, more markedly felt. The above instances show conclusively, that the peculiar circumstance of pulsation, in whatever they may consist, is, in effect, separate from the blood-wave; and therefore it may be inferred it does not owe its immediate origin to that mechanical power or force which originates the circulation of the blood.

The blow which the heart makes against the ribs—the *ictus ventriculi*—and which does not occupy the period of the ventricular contraction, but only its concluding act, is neither a pulse nor the cause of it; not only are they not synchronous, but they bear little or no uniform relation in force to each other; the former may be violent, the latter weak. Moreover, the various observations which have been made on the circumstances of the circulating wave, show it not to be the result of a violent or spasmodic contraction of the originating power, such as might be inferred to be the case if it were the result of an action producing a violent rush of blood, and this so sudden as to be ejected at a single moment, and also to produce the vibration of the pulse. The experiments of Hales may be particularly referred to, in confirmation of the above; as also the absence of recoil in the distal arteries, and the absence of any bursting effect when, in an aneurism, the distal vessel is tied.

After fully considering the whole question, we can not but conclude that the circulating wave and the pulse are two separate and distinct operations, and therefore, as taking place in the same medium and transmitted by the same tubes, not due to the same cause. Doubtless, the contraction of the ventricle causes the projection of the column of blood, and this column traverses the arterial system by successive waves; while the pulse is a vibration taking place simultaneously through the whole particles of this, as it were, solid column of blood. The vibrations which constitute the pulse obey the same laws as sound transmitted in bodies, or as those vibrations which, when a blow is struck on one end of a log of wood, are felt distinctly by a hand applied to the other, although there be no visible locomotion. The pulse is, in fact, similar to that tangible shock which "is conveyed through a fluid without any apparent accumulation of it, or change of velocity. Thus, the working of a water-pump may be discovered at great distances through iron pipes, or even through elastic pipes of leather, as those of a common fire-engine, from which the water is spouting nevertheless in a uniform stream," (*Arnott*).

What, then, is the cause of those vibrations which constitute the pulse, as separate from the circulation? In the course of the preceding argument it has been shewn that, in the arteries and in the moving column of fluid within them, the physical conditions exist for the ready transmission of vibrations occurring in this latter; and in a former paper it has been shewn, that the mechanism of the heart is well adapted for the production of these vibrations. (BRITISH MEDICAL JOURNAL, 12th May, 1866, No. 288, p. 486.)

Having reference to that general law of hydraulics, which enunciates that the momentum of a liquid in motion is as great as that of a solid, and, hence, that anything which opposes or arrests this momentum, will receive as severe a blow as if from a solid, and cause within it the same disarrangement of particles, we see that, as the blood in circulation is a moving column, and its motion be opposed or arrested, there then exists the conditions for producing those vibrations, within the columns, similar to those which would take place in a solid. It has also been shewn (*vide* previous paper) that, in the sudden closure of the semilunar valves, the mechanism for thus opposing and arresting the circulation exists.

It is probable, considering the elastic properties of the arteries, that, were it not for the closure of the semilunar valves during the diastole of the ventricle, whereby the momentum of the column of blood is arrested, the supply *per saltum* would have been equalised in these vessels, so that there would not only have been a pulseless wave, but one rendered tolerably even in its flow. As it is, the onward wave is, both in its origin and in its effect, independent of the vibrations which constitute the pulse, as also of the cause of these vibrations; while, on the other hand, these vibrations are, in their origin, independent of the cause of the circulating wave. They are, in fact, dependent for their development on that valvular mechanism, whereby the onward wave is suddenly arrested. It has been stated, that the passage of the blood through the arteries is characterised by three phenomena: 1. the filling of the artery by the onward wave; 2. the pulse; and 3. the gradual cessation of vibration (*vide ante*); and looking to what has now been set forth, these phenomena may be thus explained. The moving wave, whereby the circulation of the wave takes place, is accounted for by the systole of the ventricle; then the sudden vibrations taking place simultaneously throughout the whole moving column of blood, and which constitute the shock or pulse, are accounted for by the momentum of this moving column being arrested by the sudden closure of the semilunar valves; and the succeeding pause is that period during which the momentum of the wave is temporarily arrested, and before it again has re-established its even flow.

As regards the relations of the pulse to the sounds of the heart, in respect of time, it may be stated that the onward wave commences simultaneously with the first sound; the vibrations that constitute the pulse are synchronous with the second sound; and the pause occupies the time between this and the first sound. The reading of the sphygmograph shows an ascending line; this commences synchronously with the first sound, while the highest point of this depicted line is synchronous with the second sound, and the fall or wave-like decadence from this highest point, represents the pause or period between the second and first sounds. The explanation of all this is, that the ascending line of the sphygmograph depicts the expanding of the artery by the onward wave of the blood forced into it by the systole of the ventricle; its highest point, which is synchronous with the pulse-vibration, and with the second sound, represents the instant when the momentum of the onward current is arrested; while the fall in its line represents the period between the second and first sounds, and before the systolic action of the left ventricle has re-established the onward wave-flow.

Before concluding this paper, it may not be out of place to observe, that the theory of the pulse now set forth explains many peculiarities of the circulation observable in disease, and which, without it, are not, as it appears to me, easily to be explained; such as the violent beat of the heart with a feeble pulse; the absence of the true pulse-vibrations where valvular disease is confirmed; the undulations without pulse of the venous pulse; shock; etc. These will, however, be more particularly referred to when these diseased conditions are the especial subject of remark.

REMARKS ON OBSTRUCTION OF THE BOWELS: WITH CASES.[*]

By E. COPEMAN, M.D., Norwich.

CASE XXXVI.—Miss B., a delicate girl, about 19 years of age, had been complaining now and then, for several weeks, of pain or uneasiness in the right iliac region, and was subject to constipation. About a week before I saw her she ate a good many nuts, and continued to eat some for two or three days afterwards, when she was suddenly seized with severe pain in the situation of the ileo-cæcal valve, and became sick and faint. After this she had no satisfactory relief from the bowels, although treated actively by her surgeon, and I was summoned on May 14th, 1863, in consultation. I found her at 5 P.M. with a depressed countenance, small rapid pulse, dry tongue, and considerable thirst. The abdomen was tumid and hard over the right iliac region, and tender; but there was no general peritonitis. She had vomited several times, and neither aperients nor enemata had answered. I advised a discontinuance of the purgative plan; and we agreed to give her at once a large injection of soap and water and castor oil, to cover the abdomen with a bran poultice, and to give her a grain of the watery extract of aloes and a quarter of a grain of opium every three or four hours; soda water and milk to drink, and a little mutton broth occasionally, if not sick. At 10 P.M., we found that the enema had passed away scarcely tinged with fæces, the other symptoms remaining much the same.

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[*] Continued from page 169 of vol. i for 1861.

May 15th.—This morning we found the pulse 120 and a little improved in character, the tongue not so dry, and the skin moist. She did not vomit or feel sick during the night, and slept a good deal. The abdomen was not more distended, and was rather less painful; but there had been no relief from the bowels. We agreed to continue the treatment with the exception of reducing the quantity of opium to a sixth of a grain in each pill, and giving it not oftener than every four hours.

May 16th.—This morning we found her rather faint, and the pulse weaker; but it was also slower (108), which it would not have been had its weakness depended upon increased abdominal mischief. The cause of the depression seemed to be the occurrence of menstruation in the night, a fortnight before the proper time. In other respects she was easier; the abdomen was less tense and tender; but there had been no relief from the bowels. The pills were ordered to be continued every four hours. In the afternoon the bowels were relieved twice, and the dose of aloes was lessened for fear of purging.

May 17th.—She had a good night, and slept so much that no pill had been given after midnight. There was no more relief from the bowels, but no sickness. Pulse 108; tongue furred. She felt altogether easier; and the abdomen, although firmer and more resisting than it ought to be in the situation of the ileo-cæcal valve, was less distended and less tender. She was ordered a pill containing a grain of watery extract of aloes, to be taken alternately with those which she had before containing opium.

May 18th.—She had another good night, and several dark green fluid motions. The abdomen was less tender; pulse 96. The treatment was continued.

May 19th.—There were five or six motions of the same colour and consistence in the last twenty-four hours, she having taken five of the pills in that time, three without and two with opium. The abdomen was still too resisting and tender to the touch, the left side being a little more painful than the right. Her general health was improved. She had no sickness; pulse 96. She took beef-tea and arrowroot with a little brandy.

May 23rd.—The same treatment had been continued to the present time, and she had been passing pulpy fæces mixed with dark green bile from four to six times in twenty-four hours, without any irritation or purging, and with a gradual removal of swelling and tension in the original seat of pain. That part of the abdomen, however, was still rather tender, and there was evidently something more to pass. Her general health was daily improving; she took a little solid food yesterday. She took now three pills in twenty-four hours, one with opium and two without, and had a little mercurial liniment rubbed over the situation of the ileo-colic valve night and morning.

May 26th.—My colleague informed me to-day that on Sunday, the 24th, this patient passed nearly half a pint of pus by stool, but that she seemed to be much the same as before, having no increase of abdominal pain or fever, but on the contrary, less tenderness in the original seat of pain. From this period she slowly and gradually regained her former state of health, and had a satisfactory recovery.

CASE XXXVII.—On June 2nd, 1863, I was called in consultation to a delicate old lady, suffering from obstruction of the bowels, having had no relief for ten days. I found her with a very weak and frequent pulse, an anxious countenance, distended abdomen, and visible coils of bowel attempting to overcome the obstruction, which I imagined to be seated in the small intestines at or near the ileo-cæcal valve, where there was great tenderness on pressure. She had vomited frequently, and lately the ejecta were of a stercoraceous character. There was no sign of hernia in any of the usual situations. The surgeon in attendance had very carefully treated her in the usual manner with aperients of different kinds and enemata, but without any satisfactory results. In the emergency I recommended the injection of air into the bowel, and grain doses of watery extract of aloes and opium every hour or two by the mouth. She had also turpentine stupes applied assiduously to the abdomen.

I saw her again on the 6th, and found that since the injection of air she had passed a great deal of wind *per anum*, and all the general symptoms had subsided, although there had been no motion. She had not been sick since the day on which air had been injected; but as she complained a good deal of griping, we omitted the aloes, and gave her calomel and opium instead. Her pulse was down to 84, and her countenance was so improved as to denote, in conjunction with her generally amended condition, the removal of complete obstruction, although no motion had yet actually been passed. In a few days I was informed that free action of the bowels had taken place, and she gradually recovered.

CASE XXXVIII.—On November 2nd, 1863, I was requested to visit a lady of middle age, who had suffered from obstruction of the bowels for more than a week. There was evidently commencing peritonitis; the abdomen was greatly distended and very tender, the urine much loaded, the pulse small and feeble, the tongue dry, countenance anxious, and she had frequent vomiting. I advised a grain each of calomel, watery extract of aloes, and opium to be taken every two hours, turpentine stupes to the abdomen, and a large enema in the morning if required.

Early on the following morning she had an enormous relief from the bowels; and from that time all danger was at an end, although she remained some time in a weak and feeble state, slowly recovering from the peritoneal mischief.

CASE XXXIX.—On August 10th, 1865, I was summoned many miles into the country to visit a strong healthy-looking farmer, about 30 years of age, unmarried, living with his father, and leading a very active life. I found him suffering from serious obstruction of the bowels, stercoraceous vomiting, and a very tumid and painful abdomen. The symptoms were of more than a week's duration, and his medical man took it for a case of intussusception almost certain to lead to a fatal result; but there had been no discharge of bloody mucus or blood from the bowel, and I thought it a case of obstipation from some other cause. Purgatives had been freely used without effect, and no motion had passed for several days; we therefore agreed to discontinue them, and advised turpentine stupes, an enema of soap and water, and a pill containing a grain of watery extract of aloes and half a grain of opium every four hours.

On the 13th, the surgeon wrote as follows. "Our patient is still alive, and I think, in some respects, a shade better. After we left him on Thursday evening, he had a great deal of pain and distension, for which a grain of opium was given at 6 P.M. At 10 he took another, with a grain of the extract of aloes, and so on during the night (one with opium alone, and the next with opium and aloes combined). On the following morning, I found him still in much pain, though not more than when you saw him. The rest of the injection had been passed, but without any feculent matter. He had taken a little milk two or three times in the night, and had no return of the sickness. I gave him another enema, and directed him to continue the pills. On Friday night I saw him again, and found him in more pain, with decided inflammatory symptoms arising in the right side. There was increased tenderness in the iliac region and along the cæcum. The pulse had risen to 100, with a dry tongue. The enema returned *alone;* no sickness. I therefore ordered leeches over the painful part, and sent him some opium pills with half a grain of calomel instead of aloes. Yesterday morning he was decidedly relieved by the leeches; pulse down to 80; less pain on pressure, although still a good deal; no sickness. Moreover, he had passed a little wind *per anum*, which seemed to relieve him. I ordered six more leeches over the most painful part, to be followed, as before, by warm fomentations. Last night I found him not so well again; the pulse had risen to 95; body very tympanitic; no more wind passed, but no return of sickness. This morning he was again easier, and had passed a little wind once or twice during the night, sufficiently odoriferous to have satisfied the old practitioner you referred to." (This was said in allusion to a remark I quoted, made by an old practitioner of my acquaintance some years ago, to the effect that no patient under such circumstances would die if he could *pass wind per anum*, although, quaintly, he expressed it in less refined terms.) "The pulse was down to 85; he had retained what milk he had taken, and the countenance does not look at present like that of a dying man. Still the body is very distended, and there is evidently as yet no free passage. I gave him another soap and water enema, and shall see him again this evening. It is a curious case, but not without hope; nor do I see that we can do better than persist in our present plan of treatment."

On the 17th, I received the following letter. "You will be glad to hear that our patient is improving, although he has been very ill, and has had many relapses since I wrote on Sunday. On that evening and on Monday, the inflammatory action increased about the ileum and cæcum, with enormously distended abdomen, and no relief. Pulse 100 to 110. The hopeful feature of the case, however, was that there was no return of sickness. He was leeched freely again on Sunday, Monday, and slightly on Tuesday, and always with marked benefit and relief of the pain. On Tuesday night he had a natural relief; on Wednesday another; and last night and this morning two or three relaxed, child-like motions; and this with his continued taking of five or six grains of opium in twenty-four hours, with two of calomel. His gums do not show the effect of the mercury; but as the inflammatory symptoms are subsiding, I have discontinued its use, and also diminished the opium. The tympanitis and remaining abdominal pain have also been relieved by turpentine stupes, which I ordered to be applied since the leeching has been discontinued. He has now commenced a more generous diet, eggs and milk, beef-tea, etc. At present there has been no appearance of blood in the stools. This has been an instructive case, and I am obliged to you for your advice and encouragement in its conduct."

September 16th.—"I am glad to inform you that Mr. L. is quite recovered from his illness. He continued steadily to improve. I have not seen him for a fortnight, but he was then 'tucking in' a good dinner of beef and bread, with port wine and water."

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

COLDSTREAM GUARDS HOSPITAL.

FATAL CASE OF CHOREA IN THE ADULT MALE: AUTOPSY: WITH REMARKS.

(Under the care of ROBERT FARQUHARSON, M.D., Assistant-Surgeon Coldstream Guards.)

THE following appears to be a well-marked example of that form of chorea which follows acute rheumatism and cardiac disease. Its interest is enhanced by the contrast it affords to the interesting case recently reported by Dr. Wilks (*vide* BRITISH MEDICAL JOURNAL, Feb. 29th), in which sudden fright was the exciting cause of the exaggerated movements.

J. A., aged 19, suffered in December 1862 from articular rheumatism, during which aortic regurgitant disease of the heart became developed. The *bruit* was at first unattended by symptoms; but pain, palpitation, and dyspnœa gradually set in, and rendered him unfit to perform the duties of a soldier. On February 11th, he had a slight relapse, which rapidly subsided under alkaline treatment; and the 16th found him tolerably free from pain. He was observed, however, to be restless and fidgetty, twitching his face and jerking his body; and he became rapidly worse until the 18th, when he presented the phenomena of chorea in their most aggravated form. It is difficult for language to give any idea of the excessive force and variety of the muscular contortions which had now taken complete possession of his frame. He perpetually tossed about, struggling against restraint, and every now and then seized with an almost tetanic spasm, bending the body into the form of a bow. Consciousness was not impaired; and he endeavoured to answer questions, but could not talk intelligibly. The movements continued with unabated vigour until next day, when they were observed to be entirely confined to the left side. This change, however, brought no relief to his sufferings, as he grew more violent than ever, and was with difficulty kept in bed by two powerful men. The urine was copious and limpid, specific gravity 1013. Towards evening he became quieter, and apologised to those around him for the trouble he was giving; but this amendment was of brief duration. The choreic symptoms returned with great intensity; and death, preceded by rapid sinking, took place at 8 A.M.

The treatment included most of the principal sedative and narcotic remedies, which speedily lost their soothing influence on the nervous system. The hypodermic injection of morphia at first produced good results, and chloroform caused a few minutes' refreshing sleep; but it was found, on repetition, that the action of these drugs was unfortunately very transient. Lastly, cannabis indica was tried; but forty minims of the ethereal tincture caused so decided an aggravation of the symptoms of the disease, as to render any continuance of the experiment unjustifiable.

On *post mortem* examination, the pia mater covering the brain and anterior surface of the spinal cord was found to be abnormally vascular; and the right lateral sinus and internal jugular vein were gorged with dark blood. The anterior spinal artery and vein were of very large size; and some of the vessels accompanying the anterior roots of the spinal nerves appeared enlarged and tortuous. Naked-eye inspection detected nothing unnatural in the appearance or consistence of the nervous substance. The pericardium contained about four ounces of clear fluid. The heart was somewhat enlarged, and coated in places with recent lymph. Over a considerable portion of its outer wall and the corresponding pericardial surface, were scattered warty excrescences and roughened patches, giving the well-known resemblance to tripe. The valves were healthy, with the exception of the middle aortic, which was thickened by commencing vegetations. The other organs were free from disease. Some urine withdrawn from the bladder contained a large excess of urea.

REMARKS.—The main facts of this case seem so far to speak for themselves as to render comment unnecessary; but I should like to draw attention to the very insidious manner in which the heart-disease stole on, without being attended by general symptoms sufficient to indicate its presence. That this occasionally happens in acute rheumatism, must be a matter of general observation; and I would throw out the hint, that the alkaline treatment, while undoubtedly lessening the risk of cardiac complications, may, by its lowering effect on the system, cause these to assume a masked form, if they do occur. I venture to make this suggestion, in consequence of having observed such a course of events in other cases of rheumatism which, like the preceding, had been treated by large does of alkalies.

In conclusion, I have to express my thanks to Surgeon-Major Cay for permission to publish these notes.

ST. VINCENT'S HOSPITAL, DUBLIN.

GANGRENE OF BOTH LITTLE TOES.

(Under the care of Dr. MAPOTHER).

MARGARET BYRNE, aged 27, single, healthy, seven weeks since felt a severe pain in the right little toe; and, three days afterwards, matter formed under the nail and cuticle, which was evacuated by an incision. It was then found that a large slough had formed on the inner border of the toe. A fortnight afterwards, the left little toe became rapidly gangrenous to the level of the second phalanx, where a line of separation formed. She was then admitted to hospital. On July 9th, the slough on the toe first attacked had come away; and Dr. Mapother proposed in a few days to remove the dead portion of the left toe by dividing the ligaments of the first phalangeal joint. No peculiarity in diet or health, and no local cause, could be charged with the production of this unusual symmetrical gangrene.

ST. PANCRAS INFIRMARY.

SENILE GANGRENE: DEATH: AUTOPSY.

(Reported by F. W. GIBSON, M.D.Lond., Resident Medical Officer.)

MARIA P., aged 75, was admitted on February 8th, 1868, on account of a superficial burn of the right foot and leg. On February 19th, gangrene of the second and third toes supervened, and spread about halfway up the leg. No line of demarcation formed. She died on February 23rd. By *post mortem* examination, tubular calcification of the arteries of the limb, a fibrinous plug completely blocking up the lower part of the femoral and popliteal, fatty degeneration and general dilatation of the heart, atheroma of the aorta, great thickening of the capsule and trabeculæ of the spleen from fibrinous deposit, a granular condition of both kidneys, and cirrhosis of the liver, were discovered.

CHARING CROSS HOSPITAL.

SKIN-CLINIQUE: SYPHILITIC ACNE (ULCERATING) SIMULATING LUPUS.

(Under the care of Dr. TILBURY FOX.)

THE following case is instructive in regard to (1) the differential diagnosis of lupus and syphilis, and (2) the treatment. The recognition of the disease as syphilitic demanded a plan of treatment wholly different from that which is called for in lupus, especially in reference to local applications.

The case was that of a single woman, C. W., aged 30, who was admitted Jan. 14th, 1868. As she entered the room, the patient seemed to present a large patch of ulcerating lupus, occupying the left side of the nose in its lower two-thirds. The patch had a dull red areola, but not of any very great extent; it did not sensibly exude; it was tolerably clean, and inclined to scab here and there. It was not painful, nor had it been so. The diseased surface, as a whole, was depressed below the level of the surrounding skin; and on closer inspection appeared to be uneven, being marked by depressions or pits, which were seen to be small ulcers, and in addition elevations, several of which were capped with little points. On questioning her, the following history was elicited. The woman suffered from primary syphilitic disease eight years since, which was neglected. This was followed by secondary mischief shortly afterwards. Five years ago "spots" appeared on the head, face, and legs; those on the latter were replaced by "ulcers." Scars now marked the site of those on the side of the head. The patient was at different times in St. George's, Charing Cross, and Westminster Hospitals for severe pains in different parts of her body, dependent apparently upon the syphilitic infection, for which she appears never to have been fairly treated. In one hospital she had her head shaved, was leeched on the scalp and temples, was blistered on the head and behind the ears, the blistered surface being kept open by the use of "green" ointment. On leaving the hospital no better, she seemed to have been treated by iodide of potassium, and became pretty well. But she had always had aching pains in her limbs, and referred to them as having caused her much suffering. She had been and was leading a fast life, was attacked by very low spirits, and fretted much. For some little time before the present illness, save the aching in her bones and head, she has been pretty well, but the pain had been so bad that she had "been obliged to get out of bed to sometimes get cool." Three months ago she had "pleurisy" after being wet, and went into hospital. Previously to admission, an eruption showed itself at the side of the head, just in front of the ear, in the shape of four inflamed pimples, which became after a time "mattery." Similar places appeared in the head, and these remained much the same throughout in regard to appearance. There were now about twenty pustules near the ear, which were isolated, and these were intermingled with little depressed scarrings. On the lower part of the cheek on the same (left) side was a patch of the size of a fourpenny-piece, made up of a few pustular elevations (acuiform). During the woman's stay in the hospital, small pimples came on her nose, and she thought they were "flesh-worms." After a while, they increased in number, becoming confluent, and produced a large ulcerated patch as described at the outset. Dr. Fox pointed out that the disease bore close resemblance to lupus, and especially to what had been termed "follicular lupus," which was a misnomer. The follicles might be specially involved in lupus, but this was no reason for naming the variation a special disease. The character of the disease on the cheek was an ample clue to the nature of the alteration of structure about the nose. The distinct origin from acne-like spots of an indolent, painless nature, leaving in progress of disappearance marked pitting, sufficed for diagnosis from lupus which commences by tubercle. No doubt the disease on the nose was in reality a syphilitic acne produced by the crowding together of separate pustules corresponding to the glands (which were large and well developed in the patient), and breaking out into pretty free ulceration. These different features were well made out at the time of the patient first coming under observation. Against lupus, were the origin by pustules, the continuous nocturnal pains in the head and the limbs, the history of syphilitic affection, slight faucial redness, with old scars, etc. Menstruation had not occurred for three years. It also seemed that irritants had been used to the diseased nose, and had increased the ulceration. The woman was put upon Plummer's pill and iodide of potassium in increasing doses; and was told to use warm fomentations and apply zinc ointment. On the 26th she had rapidly improved, all pustulation had gone, and the healing process had nearly removed the ulceration; in fact, there existed only a red patch with little dry pits, the pains in the head and limbs had gone, and the woman had been "unwell," and expressed herself as being better than she had felt for a long time. Dr. Fox observed that a mistaken diagnosis would have led to the employment of caustics, most likely with the probable increase of ulceration, and certainly of the subsequent scarring, which is now comparatively slight. In other parts of the body, as the legs, caustics have been applied to former eruptions, and large and well-marked scars are left. Care in the use of caustics in syphilis was urged in regard to all parts where disfigurement would be inconvenient. In lupus, however, the case is different; hence the importance of a correct diagnosis in ulcerating diseases, especially of the face, and the desirability of employing prompt and judicious constitutional treatment.

NORTH LONDON HOSPITAL FOR CONSUMPTION.

FOUR CASES OF INOCULATION OF RABBITS WITH THE SPUTUM OF CONSUMPTIVE PATIENTS, WITH RESULTS.

(Communicated by Dr. Charles Drysdale.)

March 4th, 1868, two healthy young country rabbits were inoculated by Dr. Drysdale, assisted by Mr. Vaughan, with the sputum of the two following patients.

I. J. P., aged 36, lying in bed, had been ill two years, and had several attacks of hæmoptysis. The finger-ends were clubbed. Bronchophony and pectoriloquy were heard at the right infraclavicular region. He was emaciated, pallid, and had abundant night sweats. There was a history of phthisical family. Large cavernous râles were heard at the right apex. The diagnosis formed was tubercular phthisis. A piece of worsted thread was dipped in the sputum of this patient; and, an incision being made in the back of a rabbit of a known age, the thread was passed in by means of a large needle for two inches below the skin, and on being withdrawn, about a fluid drachm of the sputum remained. On April 29th, 1868, the rabbit, having for a week or two appeared out of sorts, and having lost the sight of its left eye from corneitis, was killed and opened by Dr. Drysdale. At the spot where inoculation had been practised there was found a lump, of the size of a hazel-nut, elastic, and presenting on section a cheesy look. Both lungs of the animal were crammed full of "tubercles," or what would have been called tubercles, until lately. In fact, they were nothing else than tubercle, having a microscopic appearance quite like early grey granulations in man. There were a few granulations on the lesser curvature of the stomach; the rest of the organs were healthy.

II. J. T., aged 36, had hæmoptysis two years ago, and at the date of inoculation had marks of a large cavity at the right apex. His appetite was pretty good; he had no diarrhœa. A small pewter syringe full of the sputum of this patient, beat up with water, was injected in the cellular tissue of another rabbit of the same age as No. I. On March 21st, this rabbit died, having been remarked to suffer from dyspnœa for a day or two previously. On examination, there were found a few budding granulations on the left pleura, and about a tablespoonful of liquid in the cavity.

Two healthy rabbits were inoculated with the sputum of two patients in the last stage of tubercular phthisis on October 2nd, 1867. The mode of inoculation, however, was different, and by no means so efficacious as in the cases above related. An incision was made in the skin of the animals, and a piece of lint dipped in the sputum was applied to the part for a short time. The rabbits were killed on December 4th, 1867, and were both found entirely free from tubercle. A number of ovoid bodies were found in the livers of both.

Dr. Drysdale has, in many instances, examined the lungs of rabbits, and has not seen tubercles, except in the two above or similar cases. He is, then, inclined to conclude, that the sputum of the phthisical has a peculiarly potent effect in the production of these "tubercles;" far more, he believes, than any other irritation, such as setons, would be likely to produce, and he believes this would be probably granted by all who have made similar experiments. For example, M. Villemin informs us in his work on Tuberculosis, 1868, p. 578, that he inoculated a rabbit on several occasions with phlegmonous pus, then with pus from carbuncle, and then with the matter from the intestines of a patient who died of cholera, with negative results, after two months. Two rabbits inoculated with fibrous cancer had no result after a period of two months; and two others inoculated with encephaloid cancer gave negative results in one month and twenty-three days.

Dr. Drysdale believes that guinea-pigs become much more easily affected with tubercle than rabbits; and in one case where he passed a worsted thread seton under the skin of a rabbit, it was found to be healthy one month subsequently to the experiment. Dr. Drysdale feels inclined to believe that the discovery made by M. Villemin is of the utmost importance, and that it is likely to prove of great service in investigations as to the causation of consumption of man.

CARNARVONSHIRE AND ANGLESEA INFIRMARY.

FRACTURE OF THE BASE OF THE SKULL: RECOVERY.

(Under the care of Mr. J. Richards.)

The following case was lately under treatment in the Carnarvonshire and Anglesea Infirmary. The patient had most of the symptoms of fracture of the base of the skull (probably the petrous bone). As recoveries from such an injury are the exception, and not the rule, perhaps a record of the case will be interesting to the profession. The notes of this case were taken by Mr. Rowland, the house-surgeon. The man was discharged six weeks after the accident, apparently in his usual health, except that he had lost his hearing. He said he had nothing to complain of, except a continual noise in his ears.

J. O., aged 23, joiner, of spare habit of body, intemperate, was admitted on the night of February 10th, 1868. He was found insensible near the Independent Chapel in this city, having fallen over a wall a height of about fifteen feet. Dr. Richards was called, and recommended his friends to bring him to the Infirmary. On admission, he was very cold, and insensible; the pupils were dilated; and there was profuse hæmorrhage from the right ear. He had been vomiting on his way to the Infirmary. He was at once placed in bed, and warmth applied externally by means of hot bottles, etc. He was unable to swallow. His evacuations were involuntary.

February 11th.—He had had several convulsive fits during the night. He was insensible. Hæmorrhage from the ear continued. Three grains of calomel were placed on the tongue this morning.

February 12th.—Reaction had come on. He was still insensible; pulse quick. A grain of colomel was ordered to be placed on the tongue three times a day; and low diet was ordered.

February 13th.—No warmer. He seemed more sensible. He called for the utensil, passed urine, but immediately relapsed into a state of insensibility. A blister was ordered to be applied to the nape of the neck; the calomel to be continued.

February 14th.—He was much the same. Hæmorrhage from the ear continued.

February 16th.—He had had several convulsive fits, but was more conscious. There was a copious discharge of watery fluid from the right ear. His gums were sore; pulse quick; there was no stertor; the pupils were slightly dilated. He was ordered to have low diet, and an ounce of the following mixture three times a day.

℞ Potass. iodidi ℈j; potassæ bicarb. ʒ ij; misturæ camph. ℥iij.

February 19th.—He was improving; had had several convulsive fits, and was more conscious. He was quite deaf. The bowels were well moved; the pulse regular; the head cool. The discharge of watery fluid from the right ear continued.

February 25th.—He continued to progress favourably; had had no more convulsive fits. He was shouting continually. The discharge from the ear had ceased. The treatment was continued, and he was ordered to have mutton-broth.

February 29th.—He had ceased to shout. He complained of great pain in his right ear. Pulse regular; head cool. He was ordered to continue the medicine; to have meat diet; and a poultice to be applied to the ear.

March 3rd.—There was a profuse discharge of matter from the ear. He was much better, and was ordered to continue the meat diet, and to take an ounce of the following mixture three times a day.

℞ Potassii iodidi ʒss; infusi rhei ℥iiss; infusi gentianæ ℥iv; aquæ ad ℥viij.

March 23.—He was discharged this day, having quite recovered, except his hearing.

HULL GENERAL INFIRMARY.

CASES OF LARYNGOTOMY AND TRACHEOTOMY.

(Reported by Mr. T. M. Evans, late House-Surgeon.)

The following include all the cases in which either of these operations was performed during the four years, commencing January, 1864, in which I was house-surgeon to the infirmary.

Case I. *Cystic Disease of Thyroid Gland: Tracheotomy: Death.*—David B., aged 21, was admitted under Dr. King, on October 12th, 1864, for dyspnœa, due to the pressure upon the trachea of a tumour connected with the thyroid gland. The tumour was of the size of a hen's egg, very prominent and defined, and lay in front of the isthmus; there was also considerable general enlargement of the gland. The disease had been progressing for three years; his breathing was stridulous, cough sonorous, voice husky. The dyspnœa gradually increased; and at 3 A.M. on the following morning, the patient being then quite livid and insensible, Dr. King removed the tumour by a longitudinal incision in the middle line; and directed that, unless respiration were shortly much improved, the trachea, which lay exposed at the bottom of a deep wound, should be opened. This was done by myself two hours afterwards, and a single tube inserted. Though at first greatly relieved, he died asphyxiated on the 15th, from the tube becoming gradually clogged with tenacious mucus, of which there was a very abundant secretion.

Case II. *Diphtheria: Tracheotomy: Death.*—Maria W., aged 22, was admitted under Dr. Daly, on June 19th, 1865, with diphtheria of four days' duration. Dyspnœa was extreme; and, suffocation being imminent, I performed tracheotomy an hour afterwards, and inserted a double tube. Though completely relieved at first, she died after eighteen hours from obstruction of the trachea with mucus below the tube, which was quite pervious and clean when removed.

Case III. *Acute Laryngitis: Tracheotomy: Recovery.*—J. A., aged 59, was admitted, under Sir H. Cooper, on March 1st, 1866, with very urgent dyspnœa, stridulous breathing and cough, livid complexion, feeble pulse, and dusky redness with œdematous swelling of the fauces and soft palate; these symptoms having commenced only thirty hours before, Dr. Lunn at once performed tracheotomy, which was followed by great and immediate relief. Some troublesome bronchitis supervened, but he quickly recovered, and was discharged on April 26th.

Case IV. *Tubercular Laryngitis: Tracheotomy: Death.*—E. R., aged 35, had suffered from phthisis with slight laryngeal symptoms for eighteen months, and was in the last stage of the disease, and under the care of Dr. Daly. Very urgent dyspnœa suddenly supervened on May 24th, and was so distinctly traceable to laryngeal spasm, that Mr. Craven performed tracheotomy with immediate relief. Life was prolonged for six days, and he died exhausted, apparently from the phthisis simply.

Case V. *Malignant Tumour of Sternum: Laryngotomy: Recovery.*—Mary J., aged 53, was admitted, under Dr. King, on September 25th, 1866, for dyspnœa, apparently due to a malignant tumour of the sternum both pressing directly on the trachea, and causing laryngeal spasm by implication of the recurrent laryngeal nerve; the disease was of eighteen months' duration. The direct pressure upon the trachea seemed to be by so much the chief cause of dyspnœa, and operative interference to afford so small a prospect of relief, that it was postponed until her condition should be one of immediate danger. I performed laryngotomy when she was in that state, and with complete relief, though she was of course compelled to wear the tube permanently. The tumour gradually enlarged, and after twelve months she was removed to the workhouse, having been for some time able to take out-door exercise. She died shortly afterwards.

Case VI. *Syphilitic Laryngitis: Laryngotomy: Recovery.*—Sophia D., aged 21, was admitted on December 25th, 1866, under Dr. Daly, with syphilitic laryngitis of eight days' duration; the laryngeal spasm was extreme, and threatened death by asphyxia within a few hours. I did laryngotomy soon after her admission; complete relief followed, and she was discharged cured on January 19th.

Case VII. *Syphilitic Laryngitis: Laryngotomy: Recovery.*—Elizabeth P., aged 33, was admitted on May 25th, 1867, under Dr. Daly, with stridulous breathing, livid complexion, purulent expectoration, and great emaciation, which had been progressing for some months. Auscultation being impracticable, it was supposed that the case was one of advanced phthisis, and the operation was ordered to be delayed until her condition denoted extreme urgency. I performed laryngotomy a week after admission; complete relief followed, and she ultimately recovered, and was discharged on July 22nd. Syphilitic psoriasis showed itself before she left the infirmary, and auscultation proved her lungs to be free from disease. It was also learnt that her husband had secondary syphilis at the same time.

Case VIII. *Acute Laryngitis: Laryngotomy: Recovery.*—Thomas W., aged 26, was admitted August 8th, 1867, under Sir H. Cooper, with stridulous breathing and dyspnœa of six weeks' duration. Violent choking paroxysms of dyspnœa soon came on, and I operated on the following day, his condition being at the time extremely perilous and distressing. Immediate relief followed, and the tube was removed on the 31st, though, for some time afterwards, he was subject to paroxysms of stridulous breathing, occurring generally at night; but at the time of his discharge (October 5), these had entirely left him.

Case IX. *Syphilitic Laryngitis: Laryngotomy: Recovery.*—William G., aged 46, was admitted under Dr. Daly, on September 2nd, with urgent dyspnœa, stridulous inspiration, and cough, which had troubled him for three weeks. This was the third attack within the previous nine months, and he had had primary syphilis twenty years before. On the following morning, at 1 A.M., a violent attack of spasm occurred, and I found him almost dead, respiration having entirely ceased. I at once opened the larynx with a penknife, and breathing was slowly re-established. This patient continued quite unable to breathe without the tube, though put upon a course of mercury followed by iodide of potassium; but he was otherwise in good health when discharged on February 10th, 1868, and is so at the present time.

Case X. *Croup: Tracheotomy: Death.*—Anthony I., 2½ years old, was admitted under Sir H. Cooper, on December 14th, 1867, having been suffering from croup for about ten days. Dyspnœa being then extreme, and lividity very marked, I performed tracheotomy as soon as permission could be obtained. Great relief followed for the first three days, but an abundant secretion of mucus gradually obstructed the trachea below the tube, and he died on the sixth day.

It will at once be remarked that all the cases of laryngotomy terminated favourably, whereas only one of tracheotomy recovered; though to this may fairly be added the one in which death resulted strictly from phthisis. And there is no doubt that the first mentioned operation is safer, easier, and capable of being more quickly performed than tracheotomy, on account of the more superficial position of the crico-thyroid membrane. It is, for these reasons, to be preferred in all affections of the larynx, and, indeed, whenever tracheotomy is not especially indicated by the obstruction to respiration being situated below the larynx, as in croup, diphtheria, or the presence of a foreign body, or by the small size of the larynx, as in children.

With regard to the operative interference, though this should never be delayed too long, yet the cases show that, in the adult, at least, no period may be too late, so long as life be not extinct; for in Cases V and VII, where the prospect of relief seemed so very small, the operation was delayed till the last moment; and in Case IX respiration had entirely ceased when the patient was seen, yet all these eventually recovered.

Another point of great importance is the selection of a proper tube. It should be large enough, the tubes in general use being often too small; it should be double, for otherwise no amount of care will be able to prevent its inner end from becoming clogged with mucus, which dries, forming a tough horny ring, encircling the inside. This occurred in Case I, but in all the others a double tube was used. The introduction of the tube is also much facilitated if the outer part be made with two lateral blades, which, being elastic, can be pressed together, and will then enter the wound with the greatest ease, not requiring the assistance of another person to hold open its edges with blunt hooks.

PROGRESS OF MEDICAL SCIENCE.

MEDICINE.

On the Treatment of Chronic Dyspepsia by Lactate of Soda and Magnesia.—Dr. Gäbel asserts that the most obstinate form of dyspepsia is that which often occurs in chlorotic and anæmic patients, and in women suffering from uterine affection. This sympathetic dyspepsia is indicated by severe gastric pains coming on soon after a meal, but never spontaneously, and sometimes leading to vomiting. In this form of dyspepsia, acid formation in the stomach is the chief element. Dr. Gäbel has treated the pains by the carbonates of soda and magnesia, with no very satisfactory results; and pepsine has also frequently failed to do any service. Finally, pastilles containing carbonate of soda and magnesia were administered directly after meals. The results of this treatment were very satisfactory; the irritation set up in the stomach by the presence of food gradually ceased; and the patients were soon enabled to take digestible articles of diet without suffering from pain. Dr. Gäbel has frequently succeeded in bringing about a permanent cure of this form of chronic dyspepsia by a prolonged administration of the pastilles.—*Allgemeine Wiener Medizinische Zeitung*, No. 20, 1868.

On Ergotin in Pertussis and Laryngeal Spasm.—Dr. Hampel states that he has derived great benefit from administering ergotin to children affected with hooping-cough. The best form for young patients is the ergotin lozenges recommended by Boujeau, in which the drug is concealed by sugar. Hampel states that ergotin has the following beneficial results. It arrests bleeding, which is often so extensive as to produce anæmia and to increase the danger of the patient; it acts in this manner by lessening the amount of congestion in the bronchial mucous membrane, and by relieving the spasm and contraction of the glottis. It diminishes the intensity of the attacks, and increases the secretion of mucus from the bronchial tubes; it also reduces the sensibility of the bronchial mucous membrane, which is much less readily irritated by external influences.—*Allgemeine Wiener Medizinische Zeitung*, No. 19, 1868.

On Auscultation of the Œsophagus.—Dr. Hamburger, in an elaborate article on Auscultation of the Œsophagus as a Means of Diagnosis, gives the following description of the sounds heard in the healthy condition. When the stethoscope is placed over the hyoid bone of a healthy man whilst he is swallowing some water, a loud gurgling sound is heard in the pharynx, accompanied with a sensation as if the water were forcibly driven through the stethoscope to the ear of the auscultator. This circumstance is to be explained in the following manner. During deglutition the communicating openings into the pharynx are closed to the passage of air, above by the velum palati, below by the epiglottis. The water is now driven into the pharyngeal cavity by the muscles of the mouth and tongue, so that the anterior opening of the pharynx is also closed. There is then a cavity filled with air and water, none of which can pass away in any direction save by the very narrow œsophageal tube. The pharynx is now contracted by the action of the levator and constrictor muscles, and the air and water are rapidly compressed and mixed together with force; hence the loud clear gurgling sound, with a metallic noise, which is carried by the stethoscope to the ear of the examiner. On auscultating the œsophagus from the level of the cricoid cartilage downwards to the eighth rib, one may hear, whilst the subject is swallowing, a sound as if a small, but firm, spindle-shaped body, grasped by the œsophagus in an annular manner, was rapidly and noisily driven downwards.—*Medizinische Jahrbücher*, Heft ii, 1868.

SURGERY.

On Acupressure.—Billroth thinks that acupressure has advantages over deligation, and that it merits more frequent employment and serious consideration. This surgeon gives the results of seven cases of amputation, in which the hæmorrhage was arrested by acupressure. The thigh was amputated in three instances, the arm in one, the forearm in one, and in one the hand was removed at the wrist-joint. The seventh case was a secondary amputation of the leg for injury. Out of these seven cases, there were three deaths; one after removal of the thigh, another after removal of the leg, and the third from delirium tremens after amputation of the forearm. Billroth prefers the combined methods of pressure and arterial torsion (acutorsion) to simple acupressure, or to compression of the artery between a wire suture and the needle (acufilopressure). When large arteries have been compressed, the needle is not removed until after forty-eight hours, with arteries of the calibre of the radial, and below this it is removed after remaining for twenty-four hours. One case is reported of amputation of the thigh, in which a common metallic needle permanently arrested all hæmorrhage within the short period of forty-eight hours, but favoured suppuration, which prevented union by the first intention; the patient ultimately died from pyæmia. In consequence of the supposed irritation set up by the ordinary steel needles, Billroth uses needles made of gilt steel furnished with a large glass head.—*Wiener Medizinische Wochensch.*, No. 4, 1868.

On the Subcutaneous Injection of Morphia in Cases of Luxation.—Dr. Felix Thierfelder recommends the subcutaneous injection of morphia in cases of luxation which cannot be reduced without resorting to some narcotising agent. Four cases are reported: two of luxations at the shoulder-joint, one at the elbow-joint, and one at the knee—in which reduction seems to have been facilitated by injecting morphia subcutaneously. The following are given as the chief advantages of morphia over chloroform. 1. The amount of narcosis necessary for muscular reaction can be obtained more rapidly, and with greater safety, from morphia than from chloroform. 2. Morphia does not, like chloroform, cause loss of consciousness; and this is an important matter for the operator. The latter agent, when administered to spirit-drinkers—a class of individuals supplying a very large contingent to cases of luxation—is apt to cause excitement rather than complete stupefaction. In cases of this kind, there is no surer narcotising agent than morphia. 3. The subcutaneous injection of morphia is generally justifiable, even in cases where chloroform is contraindicated in consequence of organic disease. 4. The personal assistance required for the administration of chloroform can, with the subcutaneous injection of morphia, be dispensed with.—*Zeitschrift für Medizin, etc.*, Bd. vii, Heft 4, 1868.

On Paracentesis Thoracis.—The following are the chief points of interest in a contribution from Dr. Bartels, of Kiel, on the Operative Treatment of Inflammatory Exudations into the Pleural Sac. Abundant exudation into the pleural sac may cause sudden death by mere mechanical obstruction of the circulation or respiration; the longer the exudation has been collected, the smaller are the chances of complete recovery, by reason of the changes which take place in the compressed lung and in the walls of the thorax. Another change associated with abundant exudation into the pleural sac, whatever the nature of the fluid, is the tendency to chronic inflammatory processes in the compressed lung, and also in the lung of the opposite side, which inflammation may lead to deposition of tubercle. For this reason, even serous fluid should be removed by tapping, whenever there is no severe febrile disturbance, and when the exudation has caused displacement, and shows no tendency to become absorbed. Serous exudation is best withdrawn through a trocar, care being taken to exclude the air. When the fluid is purulent, a constant flow should be favoured by the formation of a large thoracic fistula, since the pus is generally reproduced after the use of a trocar, and the strength of the patient is exhausted by the prolonged and profuse suppuration. If, when puncturing a pleural sac for supposed serous exudation, the fluid be found of a purulent nature, the punctured wound formed by the trocar should at once be converted into a wide fistulous opening. The purulent nature of an exudation may be diagnosed, when the patient is suffering from pyæmia, puerperal fever, etc., when fever exists although the progress of the exudation has been arrested, and, finally, when there is œdema of the subcutaneous areolar tissue of the thoracic wall on the affected side. A pressing indication for immediate opening of the pleural cavity is the occurrence of pyopneumothorax, since there is a risk of septic poisoning when air passes through a pulmonary fistula to a pleuritic exudation. After operating for purulent exudation into the chest, it is necessary, in order to prevent putrefaction of the remaining pus and of that subsequently secreted, to clean out the cavity, either by blowing in air through an elastic catheter, or by injecting water or a weak solution of common salt. This cleansing should be repeated daily as long as pus is secreted, and the cavity is capable of holding a certain quantity of injected fluid. Dr. Bartels states that, even in purulent exudations occurring with pyæmia or puerperal fever, the fluid should not be allowed to remain, since experience has proved that, in cases so unfavourable as these, paracentesis may result in cure.—*Deutsches Archiv für Klinische Medicin*, Bd. iv, Heft 3, 1868.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 5TH, 1868.

ELECTION OF CORONERS.

THE manner in which coroners are elected is a subject which is gaining increased attention, both in the medical and the legal professions; and no doubt it will, before many years have passed, undergo modification at the hands of the legislature. We have at hand two documents bearing on the matter, the placing on record of which in the pages of the JOURNAL may be of utility in further deliberations on the subject. One is a copy of some remarks made by Dr. Lankester, the coroner for Central Middlesex, *à propos* of a paper read by Dr. Tindal Robertson, at the recent meeting of the British Medical Association; the other is an article in the *Solicitors' Journal* of last Saturday. Let us hear what Dr. Lankester has to say.

It is a mistake, Dr. Lankester remarks, to suppose that medical men, as mere practitioners of medicine, are better adapted to be coroners than lawyers or other men. The habits of a practitioner of medicine oblige him to act on evidence of a very defective kind. The practice of medicine is far from being based on accurate scientific data. Conclusions in a coroner's court must be accurate. There must be no theory of probabilities here; and action alone must take place, when the truth is discovered. This is not the kind of action which the medical man takes in practice; and the habit of acting on probability must become a state of mind that interferes with judicial accuracy. The real reason why the medical man is to be preferred to the lawyer and others is, that he has a better education. He is compelled to study the sciences of physics, chemistry, physiology, and pathology. He thus lays the foundation for the power of investigating and understanding the facts which concern the death of individuals, and to the possession of which no other class of professional men can lay claim. It has been asked, if this knowledge is so essential to the coroner, why should it not be required of a judge? Most assuredly every judge would be the better for a natural science education. Fortunately for the profession of medicine, its very existence depends on the study of the natural sciences; its power of doing good and its hope of advancement depend on this necessity. The medical man, as an educated man, has recommended himself to the public as the most proper person to fill the office of inquirer into the cause of death. If a man wants to know the cause of the death of another, he sends for his doctor, not for his lawyer.

The anomalies and difficulties in the election to the office of county coroner arise from the fact that, whilst all others of our great constitutional institutions have been adapted to the necessities of the day, the office of coroner has been left high and dry on the shores of time, whilst the river of change and improvement has swept by. Formerly, coroners, magistrates, and knights of the shire, were all elected by the freeholders. At that time, almost every male of 21 years of age could put in a claim to be a voter. There was no restriction in the value of the freehold; and the owner of a square inch of land was entitled to vote. Gradually, however, changes crept in; the knights of the shire were elected by forty shilling freeholders; the magistrates were appointed by the Crown. Amongst the latter, who became the paymasters of the coroner there sprang up a jealousy, and a determination more or less openly expressed to suppress, if possible, the office of coroner altogether. Still the old freeholders voted for the coroner; and, from the uncertainty of the tenure of the voter, the absence of registration, and the extensive employment of bribery, and personative and non-residential votes, the election has become one of the most disgraceful proceedings of our constitutional practices. That all other elections should have been improved and amended, shews the entire indifference of the legislature to the position and character of the office of coroner. Let us hope that a new legislature, with higher aspirations, and more heart in the attainment of the public good, will condescend to legislate for county coroners. Nothing could be easier than for a short Bill to be introduced into the Houses of Parliament enacting that in future all county coroners shall be elected by the same persons as those who are registered as voters for county members, and that in all other respects the election of a coroner should be conducted in the same way as elections for knights of the shire. Whatever changes, however, may be proposed, the coroner should not be a nominee of the Crown. This would be to deprive the office of the very spirit of its institution, which is that of a judge chosen by the people to inquire into deaths, the causes of which even constituted authority may have an interest in concealing.

To medical men, Dr. Lankester offered the following advice about accepting the office of coroner. In the present state of the law, no medical man of limited means should venture in the uncertainty of what the expenses may be in a contest. To win in these contests is to be ruined. Those in Middlesex, within his own knowledge, cost the successful candidates from two to seven thousand pounds. Neither the position nor the salary justified this expenditure. He regarded having obtained the coronership for Middlesex as one of the great calamities of his life. He did not believe that those who helped him to win this office knew how hardly it had pressed on his resources, but he would warn them against any attempt at pressing a medical brother into so dangerous a position, as that of sustaining the expenses of a county contest for so thankless an office. Even when got without contest, the salary paid is not equal to the service demanded. The amount paid to the coroners for Middlesex for the last six years has been at the rate of one pound per inquest, out of which the coroner has to pay all his travelling and office expenses, and those of his deputy. In London it is useless to expect to obtain practice whilst holding the office. It is not perhaps so in the country, but wherever held by a medical man, in practice, it involves relations with his fellow medical man and patients, which sometimes render his position very painful and embarrassing. On the whole, Dr. Lankester thought it would be better if the coroner could be elected from a class of specially educated men. That any medical man with a purse sufficiently long, and a conscience sufficiently easy to bribe the largest number of an ascertained constituency, should be allowed to hold the office, was, he thought, objectionable; and if some precedent ability, by examination or otherwise, could be secured from the candidates, it would act well in elevating the office, and making it one of the greatest safeguards of the life and liberty of the subject in this country.

So far Dr. Lankester. As a medical man who has gone through a contest for a county coronership, and has performed for several years very arduous duties, he is entitled to an attentive hearing. The *Solicitors' Journal* considers that the legislature ought to take gravely into consideration the question whether the officer of coroner should be elective at all. It argues that "experience of coroners' elections shows that an overwhelming majority of the electors know and care nothing about the matter; a great many do not trouble themselves to vote at all; and of those whom their own wills or the importunity of the candidates bring to the poll, some vote from wholly improper considerations, some vote for the candidate who has pleased them best irrespective of his capacity for the office, and very few indeed are the votes given honestly by electors capable of judging which candidate has in him most of the makings of a good coroner.

"If the election of coroner is to be taken from the freeholders, it must be entrusted either to the executive, that is, the Government, or to the holders of some of the superior judicial offices. . . . To whom the transfer should be made may well become the subject of consideration of a Select Committee, if not of a Royal Commission. It may be that the Home Department would be considered the best trustee of this power; but we would suggest whether, considering that the office of coroner requires a judicial capacity, the selection of coroners might not be entrusted, as that of revising barristers now is, to the judges. The medical profession would perhaps say that this would be unfair to them, as the judges would choose legal candidates; and, although the judges might, we feel sure, be trusted to choose competent men, whether legal or medical, candidates of the judge's own profession would, of course, have an advantage, if only from the better chance they would have had of bringing their capacity under his notice.

"It is certain, however, that, *cæteris paribus* at least, a man who has had a legal training, and has been habituated to the conduct of business before judges, is better qualified than the man of medical training to conduct a coroner's inquiry so as to eliminate the truth most surely and expeditiously; but members of the medical profession might, to great advantage, be employed, as is actually the case in Scotland, to assist the coroners, by the appointment for each district of a staff of competent surgeons."

BLOOD-STAINS.

The ready detection of the presence of blood in a medico-legal case is a matter of importance and interest, and several advances have been made of late years in this direction. The microscope was found to be of great value, when first introduced, in showing, by the form of the blood-corpuscles, the class of animals whence the blood came; and even now it can hardly be dispensed with, inasmuch as the appearances which it discloses are characteristic, and can be made to last for some time. Further, it introduces no fallacy into the test. A few years later, the discovery of blood-crystals of definite shape and reactions led observers to believe not only that this was a test more delicate than that which the corpuscles afforded, but that, by noting the different crystalline forms, we might ascertain the animal from which it came, or at least distinguish the blood of man from that of other mammals. Observation, however, proved the incorrectness of this view; and also that, in cases where there was a mere stain, the test was inapplicable. The process, too, was one of by no means easy application.

The next advance was made by examining the blood-solution by means of the spectroscope, and noting the position of the dark bands in the green portion of the spectrum. This process has the advantage of dealing with very minute quantities; but it requires considerable practice and a good deal of scientific knowledge, to be certain of the result.

A simpler test, and one easy of application, has been lately devised by Dr. Day of Geelong. It consists in the addition of tincture of guiacum and "ozonised ether" to a weak solution of blood, when a bright blue colour is produced. Schönbein, it will be remembered, first described accurately the existence of two differently active states of oxygen, called ozone and antozone. A molecule of oxygen may, in this view, be looked upon as neutral or passive, and formed by the union of a negative and positive particle. Ozone, as is well known, is supposed to be found in atmospheric air, in certain electrical conditions; and it may be produced by passing currents repeatedly through a tube containing oxygen. Some inorganic bodies, as the peroxides of manganese, lead, and potash, contain oxygen in the state of ozone; others, as the peroxides of hydrogen and barium, are supposed to be in an opposite state, and to contain antozone. Ozone has an oxidising influence on guiacum resin, and turns it blue, and thus differs from antozone, which has no effect on it. Further, antozonides differ from ozonides, in converting red chromic acid into blue perchromic acid. Van Deen many years ago drew attention to this subject, but Dr. Day has more fully worked it out. See a paper on Allotropic Oxygen in the *Australian Medical Journal*, May 1867. When tincture of guiacum is exposed to air or oxygen, it becomes blue; and this change takes place more or less readily, according as more or less ozone is present. "Ozonides", or bodies containing ozone, have a similar effect. Among organic substances, gum, gluten, and unboiled milk render the resin blue. The reaction with the pulp of the raw potato is well known. Other bodies, as starch, fibrine, boiled milk, and the red colouring matter of the blood, have no such effect. Boiling prevents the development of this blue colour; nor do these bodies recover it when cool. But while neither blood nor antozone, when applied separately, have any blueing action on guiacum, yet, when they are applied *together*, an intense blue is the result. If a drop of blood be mixed with half an ounce of distilled water, and a drop or two of guiacum be added, a cloudy precipitate of the resin is thrown down; and the solution has a faint tint, due to the quantity of the tincture used. If now a drop of an ethereal solution of peroxide of hydrogen be added, a blue tint will appear, which will gradually deepen and spread after a few minutes' exposure to the air. This test acts better when very small quantities of blood are used; as otherwise, if the blood is in excess, the solution is red, and gives, with antozone, a purplish or dirty green colour. So minute and delicate is the reaction, that, in a case where the microscope failed to identify any blood from a stain in a man's trousers, Dr. Day succeeded in obtaining sixty impressions.

Water has the effect of destroying the shape of the blood-corpuscle, and so it cannot sometimes be recognised by the microscope; but it in no way interferes with this new chemical test. Its accuracy may be thus shown. A piece of linen was stained with blood in the year 1840 (Guy's *Forensic Medicine*, 3rd ed., p. 316); from this a fibre was taken, containing at its extremity a most minute stain of blood; this was placed on a white slab, and treated first with a drop of tincture of guiacum, and then with a drop of "ozonised ether"; and, although the quantity was so small, and no less than twenty-eight years old, the characteristic blue appeared at once. We have found the same result in blood obtained from the urine in a case of hæmaturia, and also in blood drawn from different animals. Dr. Taylor, in the *Guy's Hospital Reports*, has shown that red colouring matters, cochineal, kino, catechu, carmine, etc., exert no such influence; and, as far as it is at present known, no other red stain will produce this result.

Black currants will cause a stain resembling that of blood more than any other; but antozone has no effect upon it.

Ink-stains will cause a blue with guiacum; so will rust-stains produced by citric or acetic acid on iron; but then *no* "ozonised ether" need be used, and this at once distinguishes such stains from blood. "Ozonised ether" is a wrong term to use; for it contains antozone, and not ozone; and to this is due its reaction. Ether which contained an ozonide would blue guiacum resin, whether blood were present or not. The test-solution is the ethereal solution of peroxide of hydrogen, which is an antozonide.

The so-called "ozonised essential oils", as oil of turpentine, lavender, etc., really contain antozone; and to this may be ascribed their use in detecting blood; for at first oil of turpentine was used, instead of the peroxide of hydrogen; but the results were unsatisfactory.

If the blood-stain be on dark cloth, the test, as above described, may be used; but then an impression must be taken off on white blotting-paper, otherwise the blue colour will not be visible.

The exact nature of the chemical change that takes place is doubtful; but the test is so simple and easy of application, and, above all, so very delicate, that it is likely to become very generally used. This test fails, as other tests have failed before, to show whether the blood-stain is human or not. The microscope will point out whether a corpuscle comes from a fish, a reptile, or a mammal; but we do not think any microscopist would rely on the mere size of the corpuscle to say whether a cell came from one class of mammals or another, seeing that slight differences in the density of the fluid considerably alter the shape of the corpuscle. When to this delicate chemical test of Dr. Day we shall add one that is decisive as to the derivation of the stain, we shall require no more aids in detecting blood for purposes of medico-legal investigation.

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Some of the members of the American Ophthalmological Society have formed a society for the advancement of aural medicine and surgery, under the name of the "Otological Society." The laws are similar to those of the Ophthalmological Society.

M. Gervais, Professor of Anatomy and Zoology in the Faculty of Sciences in Paris, has been appointed Professor of Comparative Anatomy at the Museum of Natural History, in the room of the late M. Serres.

AN association for restraining the abuse of tobacco has been formed in Paris, under the sanction of the Prefect of Police.

THE Portuguese authorities, as well as those of Spain, still persist that cholera prevails in England. From Lisbon we hear that the Committee of Public Health has ordered that all vessels from British ports, with the exception of Ireland and Scotland, shall be subject to three days' quarantine, and inspected, to see if any cholera cases have occurred on board.

A MUNIFICENT offer has been made by Mr. J. Day, a member of the town council of Dewsbury, with the object of promoting the erection of an infirmary for that town and district. Mr. Day has offered to subscribe £2,500 if £50,000 should be raised, £2,000 if £40,000 only be subscribed, and so on in proportion to £20,000. The offer will be open for twelve months; and should the effort be accomplished, Mr. Day promises further to subscribe £50 a year towards the maintenance of the institution.

THE American Ophthalmological Society, at the annual meeting at Newport, Rhode Island, on July 22nd, passed, without a dissentient voice, the following very proper resolution: "No member of the American Ophthalmological Society shall attach to his name, in any public announcement, the title of oculist, or any similar title, or shall publicly announce in print that he gives special and exclusive attendance to special practice."

A NEW periodical has been started in San Francisco, under the title of the *California Medical Gazette*. The first number—for July—which is before us, contains original articles on the Miasmatic Diseases of California, by Dr. J. C. Short; a Case of Congenital Imperforate Rectum successfully treated without a cutting Instrument, by Dr. Stillman; Large Fibrous Tumour of the Uterus, by Dr. Scott; Accommodation Power of the Eye, by Dr. Powers; a Case of Ovariotomy, by Mr. Spencer Wells; etc. There are also reports from current medical periodicals, miscellaneous information, etc. Altogether, the performance is a creditable one; and we wish it success.

THERE has recently been a liberal bestowal of the order of the Legion of Honour on members of the medical profession in France. A list before us contains the names of 2 commanders 14 officers, and 55 *chevaliers*. The commanders are, M. Sainte-Claire Deville and M. Pasteur, professors in the Faculty of Sciences. Among the officers are, besides several naval and military medical men, M. Becquerel; Dr. Depaul; M. Huguier; Dr. Forget; Dr. Nonat, physician to La Charité; M. Gintrac, director of the school of medicine of Bordeaux; M. Pouchet, director of the museum of natural history at Rouen; and M. Amedée Latour, editor of *L'Union Médicale*, and general secretary of the French Association of Medical Practitioners. The list of *chevaliers* includes, among other names, those of MM. Broca and Vulpian, professors in the Faculty of Medicine in Paris; Rouget and Courty, professors in the Montpellier School of Medicine; Dr. Dumontpallier, vice-president of the Society of Biology; and M. Marey.

A WRITER in *L'Union Médicale*, speaking of Nélaton's elevation to the rank of senator, hints that his retirement from practice may not be compulsory. For the last two or three years, he says, Nélaton has been gradually withdrawing himself from practice; and a year ago he voluntarily resigned his professorship. This action on the part of Nélaton he attributes to the fact that that eminent surgeon, like many other men advancing in age, is obliged to use glasses to aid his vision; and that he —very conscientiously—dislikes being obliged to use artificial aids to sight while operating. "A professor of clinical surgery," Nélaton is reported to have often said, "ought to be able to operate without the help of glasses;" and, as he was obliged to have recourse to their aid, he resigned his professorship. Such is one version of a subject to which we alluded last week.

THE election to the additional offices at the London Hospital has resulted in the appointment of Dr. Samuel Fenwick as Assistant-Physician, and Mr. James E. Adams as Assistant-Surgeon.

THE CONVENTION OF GENEVA.

WE are officially informed that the Swiss Government has proposed to the great powers which have signed the Convention of Geneva relative to the care of the wounded in war—among whom is the British Government—to send authorised delegates to a congress of plenipotentiaries at Geneva, with the object of arranging details and giving further extension to the provisions already agreed upon. The Convention will meet on October 5th; General Dufour will preside as before.

COLNEY HATCH LUNATIC ASYLUM.

IT seems that the authorities of this Asylum are in difficulties how to dispose of 100,000 gallons daily sewage, which at present pollutes a brook in the vicinity. Why not use it for irrigating the land in the neighbourhood?

VACCINATION.

THE Brighton guardians have appointed their assistant-overseer as the public prosecutor in cases of neglected vaccination. He is to be paid ten shillings and sixpence for each case; but is not, except in emergency, to commence proceedings without the sanction of the Officers' Duties' Committee.

HUMAN BITES VERSUS DOG-BITES.

WE were much amused, not to say surprised, on looking over the out-patient accident books of the various London hospitals for two months, to find that of 124 "bites" of different kinds entered, 18 were attributed to men or women, which number was in excess of any other animal, with the exception of dogs, who were accused of inflicting the large number of 85. Horse-bites numbered 12; cat-bites, 5; the monkey and donkey being accused of one each. The two remaining were simply entered as "bites." We certainly have no reason to be proud of our exalted position.

MEDICAL OFFICERS OF HEALTH FOR TORONTO.

THE *Canada Medical Journal* for August comments on the proceedings of a meeting of the City Council of Toronto, with regard to the salaries of the two medical officers of health for that place. The proposal was, as conveyed in a report on the subject, to give each 600 dollars *per annum;* but, at the meeting aforementioned, the salaries were cut down to 300 dollars. The argument used in favour of small salaries was one, the wisdom of which will be readily appreciated. "The services of the officer of health were not worth the money; there was no extraordinary sickness in the city; there were plenty of doctors beside them; and to grant this amount was simply to throw money away."

THE CUSTOMS REPORT.

THE Report of Her Majesty's Commissioners of Customs has just been issued. A report by the medical officer, Dr. Dickson, on the health of the out-door officers, watermen, and other inferior officers in the port of London, gives the following comparative statement of the sickness and mortality in 1866 and 1867.

	1866.	1867.
Mean daily number on sick-list	21.3, or 2.5 p. c.	26.5, or 3.1 p. c.
Ratio of cases of sickness	48 per cent.	48 per cent.
Mean duration of each case	18.5 days	23.4 days.
Loss of time through sickness	9.1 days per man	11.3 days per man.
Deaths from disease	11, or 1.3 per cent.	4, or 0.43 per cent.
,, from accident	1	1

He remarks:

"From this it appears that the number of non-effectives, the duration of the cases, and consequently the time lost to the service, have been considerably greater in the present year than in the last. The number of cases admitted to the sick-list has been nearly the same, but slightly less, in the present year. The superannuations have also been the same in both periods. It is in the mortality that the chief difference betwixt the years will be found. The number of deaths is this year unprecedently low, being less than half of the average. During the last ten years, indeed, there have been only two occasions in which this small proportion has been approached; viz., in 1864, when the mortality in London was seven, and in 1860, when it was six; but in the latter year no fewer than twenty-eight officers were superannuated, many of whom were in very precarious health, and died soon afterwards. Affections of the lungs and air-passages have, as usual, preponderated. Disorders of the digestive organs have been proportionally rare; and in this lies the main distinction betwixt the present and the last year, when the ratio of those complaints as to time lost was exactly double. There were several tedious and severe cases of rheumatism, gout, abscess, injuries, and divers forms of chronic disease; but pulmonary complaints, viz., consumption and bronchitis, of very protracted and often hopeless character, are the chief causes of the very heavy sick-list that marks this year. Many officers, chiefly of advanced or middle age, are incapacitated for duty, in the exposed situations in which their occupation lies, during the greater part of every winter. When the season is exceptionally severe, changeable, and prolonged, as the last, the number of such cases accumulates. Even when capable of performing their duties, there are few stations to which convalescents can be safely sent in cold weather, as, for obvious reasons, no fires are permitted in the docks and warehouses, and in many cases are not provided on board the vessels on which they are employed. It is somewhat remarkable that, notwithstanding the inclemency of the winter, and it may be said of the summer also, no death from phthisis occurred in the year. This disease is especially the scourge of the department, the deaths therefrom having for a long time averaged four a year. In the five years from 1858 to 1862, nineteen deaths and nine superannuations were caused by it; in the five years from 1863 to 1868, there have been only sixteen deaths, and no superannuation."

The commissioners, in commenting on Dr. Dickson's report, observe that the small number of deaths during the year, "coupled with the fact that the average death-rate for the last ten years amongst a body of men much exposed to the inclemency of the weather is only 10.4 per 1,000, is in itself sufficient evidence of the skill, care, and attention exhibited by Dr. Dickson in the performance of his onerous duties."

PURIFICATION OF THE CLYDE.

A SCHEME is at present under consideration for purifying the Clyde and carrying away the sewage of Glasgow. The plan suggested is to have intercepting sewers on both sides of the river; the sewage on the north side of the river to be pumped over an aqueduct. The entire sewage of the city will converge at the main pumping station to the west of Pollok-Shields, and be conveyed by means of a conduit tunnel to the south of Ayrshire, at a point half-way between Saltcoats and the mouth of the river Irvine, where it will be used for cultivation or discharged into the sea. The estimated cost is over a million and a quarter.

THE NEW CHESTER FEVER HOSPITAL.

A HANDSOME hospital has just been completed at Chester for the reception of cases of small-pox and other infectious diseases. It originated chiefly from the wish of the late Mrs. Wood of Chester, that a suitable hospital for such cases should be built. £500 were subscribed by her family towards the object. The hospital is detached from the General Hospital, and built on the patients' recreation-ground, which has been enlarged by enclosing part of a field lately purchased, and adjoining the hospital grounds. The new hospital contains two large wards, male and female, of twelve beds each, on the ground-floor, and on either side of the entrance. They are large and well finished; the walls are of white-washed brick, and in summer look cheerful. The ventilation is unmistakeable, but the system clumsy. The wards are heated by a large stove in the centre. There are a bath-room, a lavatory, and a good water-closet, built out of each ward. A large and pleasant sister's room adjoins the ward. The first floor, which is limited to the central part of the building, and does not extend along the entire length, contains five private wards, varying slightly in size. Patients are admitted into these wards on the recommendation of a governor, and on the payment of one shilling daily. They are attended to gratuitously by the hospital physicians, and nursed as other patients. The washhouse and laundry are on the basement floor. There is no kitchen, all cooking being done in the old hospital. The cost of the building is estimated at about £2,500. Close to the Fever Hospital, a very neat little mortuary and *post mortem* room combined has been built, with every convenience, furnished in a handsome manner. The floor is of tessellated brick, and everything is in good taste. It will cost about £200. Altogether, we congratulate Chester on the general success of these undertakings.

BRAIN-WORK.

THE *Gentleman's Magazine* speaks thus of the effects of the overstraining of the nervous system.—"This excessive tension at which the mental faculties are kept for ten or eleven months of the year, in the vortex of City life, by the never-ending competition and struggle for pre-eminence in social and professional status, to which all who live by their wits or their talents are now subjected, produces a wear and tear of body and of mind, the ultimate result and acme of which are premature old age. Its marks are easily discerned by the attentive observer. You may read them in the care-worn countenance, in the hair prematurely grey, in the lank and stooping figure, in the languid and feeble gait; and the physician also detects it in the habitual dyspepsia, in the disordered circulation, and in the degenerated and worn-out heart. The failing memory, the inability to fix the attention long upon any subject, and the irascible or desponding temper, mark the equal decadence of the mental *pari passu* with that of the physical powers."

MEDICAL ITEMS IN THE NATIONAL EXPENDITURE.

AMONG the items of increase of expenditure enumerated by Mr. Ward Hunt in his letter to Mr. Cross, there figure £18,000 increase of pay to Army medical officers under the Royal Warrant sanctioned by the late Government, and £5,926 increase of pay to medical officers of the Royal Navy. This may be put to the credit of the action of the British Medical Association, and is one of those ameliorations with which the name of the late editor of this JOURNAL, Dr. Markham, should always be gratefully associated; for it was indubitably mainly owing to his initiative in the Association and in the London College of Physicians, that the Government were induced to form the Commission whose report issued in this warrant, and in whose labours he took a leading part as representing medical interests. A similar item appears to the credit of the profession in reference to recent legislation concerning the Poor-law, of the prime origin of which it will not become us personally to say anything, otherwise than to express the firm belief that the few extra thousands so spent upon our profession will prove a real gain to the public interests. An additional expense of £40,000 is attributed this year to the necessary arrangements connected with the Contagious Diseases Act.

HEALTH OF THE CITY POLICE.

MR. BORLASE CHILDS, the medical officer of the City Police, has presented a return, showing that, during the year ending June 23rd, 1868, a decrease has been observed in the sickness and mortality in the force. Out of the whole strength, 697, 423 were admitted into hospital, 5 died, and 11.64 were constantly on the sick list. These numbers give a ratio per 1,000 of 7.17 as regards deaths, 602.57 admissions, and 16.70 the average daily sick. In the preceding year, the comparative ratios were respectively 8.75, 617.51, and 17.88. As might be expected, the diseases from exposure form nearly one-half of the admissions into hospital; but not one case of consumption came under notice even for a day's treatment during the past year. There was very much less sickness amongst the married than among the unmarried men. It further appears that the average age of the single men on admission to hospital was much lower than in the case of the other class. A difference is recorded between those who were on night and those on day duty; about 240 per 1,000 as regards sickness, but scarcely 1 per 1,000 in the matter of deaths. Mr. Borlase Childs has drawn up a comparative statement, showing that, since a hospital has been specially opened for the reception and treatment of those who are invalided by illness, a great reduction in the mortality and degree of sickness has been observed amongst the men; and he has also compared the state of the men under his charge with that of the Metropolitan Police force, and of the troops in the United Kingdom. The comparison is as follows:—

	Deaths.	Admissions.	Daily sick.
Annual ratio per 1,000 from June 1864 to June 1866, being the last two years *previous* to the hospital being built	17.27	1003.45	27.00
Annual ratio per 1,000 from June 1868, *since* the hospital has been opened for the reception of the sick	7.96	605.59	16.84
Annual *decrease* in ratio per 1,000 since the sick have been treated in hospital	9.33	393.90	10.16
Ratio per 1,000 of the Metropolitan Police from Jan. to Dec. 1867, exclusive of detached men (Mr. Holmes's report)	5.11	775.21	39.86
Ratio per 1,000 of the troops serving in the United Kingdom for the year 1865	8.86	947.00	46.14

It will thus be seen that though the mortality in the City force is greater than that of the Metropolitan, yet the admissions from sickness and the daily sick rate are less.

THE CANADIAN MEDICAL ASSOCIATION.

THE first annual meeting of the Canadian Medical Association has taken place in Montreal during the present week—on Wednesday last; that is, if nothing unforeseen should have occurred to interfere with the intention. The formation of the Association was determined on twelve months ago, at a large meeting of the profession held in Quebec; and committees were appointed for the following purposes:—1. "To frame a constitution and bye-laws for the government of the Association"; 2. "To consider the question of preliminary education"; 3, "To report on such means as will ensure an uniform and elevated standard of medical education throughout the Dominion of Canada"; 4, "To report on the best means of having an uniform system of granting licenses to practise medicine, surgery, etc."; 5, "A committee on Statistics and Hygiene"; 6, "To draw up a code of medical ethics for the government of the profession." We shall look with interest for the report of the proceedings; and, in the meantime, offer our best wishes for the prosperity and usefulness of the new Association.

THE SHEFFIELD GUARDIANS AND THE VACCINATION ACT.

THE Sheffield Board of Guardians have been in a state of great excitement regarding the carrying out of the Vaccination Act. At their weekly meeting on the 26th August, the clerk read the following letter, which he had received from the Registrar-General, in answer to a resolution passed by the board requesting the dismissal of two registrars of births, for refusing to act as public prosecutors under the Vaccination Act:—

"Sir,—I will thank you to inform the Board of Guardians of the Sheffield Union that I must decline acting on their wish expressed by them on the 19th inst., that I should publicly dismiss from office two registrars of births and deaths, because, in their anxiety not to impede the civil registration of births, they decline to become public prosecutors of those who do not comply with the Vaccination Act of 1867. I do not blame Mr. J. F. Crawshaw and Mr. J. Seale for adopting this course. The Legislature gave to boards of guardians the power of electing registrars of births and deaths. It is fortunate for these officers that the boards have not the power to dismiss them, otherwise occasionally they would lose their appointments undeservedly.

"I have, etc., GEORGE GRAHAM, *Registrar-General.*"

This letter, it is reported, caused much surprise and indignation; and, in the course of the discussion which followed its reading, Major Graham's conduct was freely stigmatised as "insolent." At a subsequent stage of the proceedings, a member of the Board proposed that a Mr. Earle, who appears to have been performing the duties of public prosecutor *ad interim*, should be reappointed at a salary of £70 *per annum.* This proposal gave rise to a sharp and rather personal discussion; and an amendment was carried, to allow the appointment to stand over for three weeks, and to advertise for candidates to fill the office at a salary of £50.

PROFESSOR HUXLEY'S HUNTERIAN LECTURES ON THE INVERTEBRATA.

Delivered at the Royal College of Surgeons of England.

LECTURE XXIV.

THE heart, in the Ascidioida, is a simple tube open at each end. It contracts from one end to the other (like a portion of intestine), driving the blood thus onwards. After contracting from about thirty to a hundred times (according to the species) in one direction, its motion ceases; but, after an interval, recommences, and goes on for a similar number of times in the opposite direction. This reversal of the heart's action, and of the direction of the blood-current, takes place in all genera, except Appendicularia, which is also the only diœcious form. The sexual organs are very simple. Generally, the embryo has somewhat the appearance of a tadpole; but in the Salpæ an ovum gives rise to a form which sends forth, asexually, a stem (or stolon), to which numerous buds are attached, each of which becomes a sexual form and contains a single ovum. This ovum is fecundated by the spermatozoa of some other Salpa, and is developed within the parent, and, strange to say, by a placenta. This placenta, however, is inverted, as compared with the vertebrate placenta, a maternal villus being received into a fœtal cup. The singular form, Pyrosoma, consists of a number of Ascidians connected together, so as to form a cylinder open at one end. The organism increases in two ways. An asexual process of budding increases the size of each aggregation, and a sexual process gives rise to altogether new aggregations. In the latter process, the yelk of the ovum (after impregnation), as it were, liquefies, leaving the germinal vesicle and spot naked. The latter divides, and forms an oval superficial patch at one end of the ovum, while four rounded portions grow into Ascidians, so that a complex aggregation, consisting of four zoöids, arises at once from each fertilised ovum.

The learned Professor devoted the rest of this, his last, lecture to the Cœlenterata. All the animals composing this large group have the body composed of two membranes and a digestive cavity, which is one with, or communicates freely with, the general cavity of the body. More or less of the surface of the body is furnished with "thread-cells", which are minute bags thoroughly distended with fluid, and containing an invaginated, more or less serrated thread. On the slightest pressure, the bag bursts, and the thread is everted. The thread-cells of the largest size (such as those of the Portuguese man-of-war) produce a very great irritation when they perforate the human skin.

The Cœlenterata are composed of two classes: 1, the Actinozoa; and 2, the Hydrozoa.

The Actinozoa have a distinct digestive cavity, and their reproductive organs are internal.

The Hydrozoa have no digestive cavity at all distinguished from the body cavity; and their reproductive organs are external, being outward productions of the body-wall.

There is no trace of any heart or circulating system in any of the Cœlenterata; but the blood is moved by vibratile cilia on the internal surface of the body. No nervous system has been found in any of the group, except Cydippe and its allies, where there is a single nervous ganglion at the part of the body opposite to the mouth.

The whole of the Actinozoa are readily referrible to the type of the ordinary Sea-anemone, except Beröe, Cydippe, etc. But even these are really formed on quite the same essential pattern, and the differences are but superficial.

The Hydrozoa are perhaps the best group in the whole Animal Kingdom for illustrating and exemplifying "homology". Professor Huxley regretted the want of time for describing a group which had been the means of making him acquainted with philosophical anatomy, and one at which he had worked so much in his voyage in H.M.S. *Rattlesnake.** He pointed out rapidly some of the more remarkable forms, with their air-bladders, swimming-bells, and other remarkable modifications.

In conclusion, he shortly noticed the life-history of Cyanea. This, in its adult condition, is a free swimming jelly-fish. The animal is diœcious, and its impregnated ova give rise to a ciliated embryo, which, after a time, settles, loses its cilia, and grows up as a Hydra tuba. The Hydra tuba gives off an indefinite quantity of other Hydræ tubæ. At a certain season, however, the Hydra tuba becomes much enlarged and transversely constricted at regular intervals. These constrictions deepen, until the animal becomes like a series of vertically superimposed little plates. After a time, these separate, and each plate swims away, and grows up into an adult sexual Cyanea. This is, again, an example of what has been called the "alternation of generations"; but the word generation does not mean the same thing in the two cases, the transition from the Hydra tuba to the Cyanea being a mere process of growth, while the transition from Cyanea to the Hydra tuba is a true sexual process.

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* See his work on the *Oceanic Hydrozoa*, published by the Ray Society.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of the above Branch will be held at the Ship Hotel, Faversham, on Thursday, September 10th, at 3 P.M.

ROBERT L. BOWLES, *Hon. Secretary.*

REPORTS OF SOCIETIES.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

SECTION II.—BIOLOGY: DEPARTMENT OF ANATOMY AND PHYSIOLOGY.

President:—W. H. FLOWER, Esq., F.R.S.

THE following are extracts of some of the papers read in this Section.

On Some Effects of Extreme Cold on Nervous Action. By B. W. RICHARDSON, M.D., F.R.S.—The author passed in brief review his experiments reported at Dundee in relation to the effects of freezing the centres of the nervous system; demonstrating that in some lower animals, such a frogs, the nervous centres can be frozen for long periods, with recovery after entire unconsciousness and apparent death. The points added on this occasion were in continuation of this line of research. Frozen animals—such as frogs—did not respire during insensibility. Animals in this state could be placed without harm in gases which would not support life. He had placed animals in this way in hydrogen, nitrogen, and carbonic acid. In other experiments, when the animal was frozen, it was immersed in ether, and allowed to lie under the fluid until indications of returning respiration were given, by the rising of bubbles of air from the animal's mouth; perfect recovery followed on removing the frog from the ether. These facts helped to explain many accounts as to restoration after freezing. The second point considered had relation to the effects of freezing the brain on the circulation. In warm-blooded animals the effect of reducing the temperature of the brain was to produce a gradual slowness of the circulation; and, when the freezing was carried to the base of the brain, intermittency of the heart and pulse followed, if the operation were continued, by the entire cessation of the heart's movement. This was a point of great practical moment. Whenever the brain was reduced in physical power, as from mental fatigue, or shock, or anxiety, irregular action of the heart was almost the necessary result. Most people were conscious of this, and often thought with great alarm that they were suffering from disease of the heart, when in fact they merely labouring under temporary exhaustion of the brain. Under the influence of extreme cold on the nervous centres, the extreme effect of such active poisons as strychnine could for a time be entirely suspended. This raised a hope that in such diseases as tetanus, a new and successful mode of treatment might be gradually evolved. Extreme cold prevented and even removed the rigidity of death. Because the body after death cooled, the inference had been drawn that the rigidity of death was due to cooling. This was the exact reverse of the fact. The rigidity was quickened by heat, and prevented by cold, probably for an illimitable period of time, the cold being sustained. Further, by taking an animal already rigid, freezing it, and thawing, the first rigidity could be removed and the body became flaccid. The last point touched upon related to the effect of freezing and rapidly thawing the skin of certain regions of the body. It was shown that birds treated in this manner presented the most extreme irregularity of movement. On freezing the side of the neck of a pigeon, the bird for a time walked sideways and in a backward direction.

Dean TORRY asked Dr. Richardson if he could explain how it was that a toad would live in stone, not for days but for years.

Professor ROLLESTON said that the idea of life was associated with the maintenance of change. In a frozen animal there was a minimum of change, if not a zero. In the New York fish-market pike were sometimes to be seen in a frozen condition, stiff and motionless, and yet they were often known, by the application of proper means, to recover their vitality. Such a fact threw some light on the transportation of species from one place to another, which might take place, for instance, through the instrumentality of icebergs, without the destruction of life. It was a remarkable fact that no hybernating animal possessed a large brain.

Dr. J. T. DICKSON spoke of the potentiality of vitality, and the confirmation this view had in Dr. Richardson's experiment, and detailed an experiment made on a pigeon in which the brain was frozen while the bird was in the act of eating oats. The impression of feeding was evidently frozen on the brain-cells; for the moment the brain was thawed the bird again began to peck as though feeding, although the floor was bare.

Some remarks having been made by Dr. Taylor, Dr. Cleland, and Dr. Anstie,

Dr. RICHARDSON said he had known fish to recover after freezing. The mode of thawing, however, had a great deal to do with the probability of recovery. The highest warm-blooded animal on which he had experimented was a kitten, which recovered after severe freezing, and even after immersion in ether.

Three papers were read upon the Seat of the Faculty of Articulate Language; viz.:

The Physiology of Language. By J. HUGHLINGS JACKSON, M.D.

The Seat of the Faculty of Articulate Language. By M. PAUL BROCA.

The Power of Utterance in Respect of its Cerebral Bearings and Causes. By R. DUNN, Esq.

1. Dr. HUGHLINGS JACKSON argued for two forms of healthy language—intellectual and emotional—inseparable in health, yet made evident by disease; in which emotional language, as variations of voice, smiles, and gesticulations, was usually conserved; while intellectual language, as manifested in words, writing, and sign-making, was lost. The author maintained that the left side of the brain was the leading side, the right the automatic. He did not think with Dr. Moxon that only the left side of the brain was educated; neither did he think that disease of the left side only would prevent a patient from getting out words when a forcible circumstance outside himself was in very special relation with the process for these words; for although, in cases of involuntary ejaculation, there was no prompting by the will, the occasional utterances were developed with more or less appropriateness. Dr. Jackson referred to the fact that aphasics often retained the power of utterance of one word or one sentence, and suggested that the stock phrase or word was probably the leading sensori-motor process when the brain was suddenly damaged. He detailed two cases in support of this view. Dr. Jackson did not attempt to localise language in any limited spot. Destruction of parts of the hemisphere at a distance from the motor tract need produce no obvious mental symptoms; while destruction near the left corpus striatum would cause defects of intellectual expression. The quantity of the defect depended generally on the quantity of destruction of tissue, and on the nearness of that destruction to the corpus striatum.

2. M. PAUL BROCA demonstrated, by means of a diagram and plaster of Paris casts, his view of localisation of articulate language in the third frontal convolution of the left side, and argued for the corpus striatum as merely the medium of connexion. Professor Broca supported his view on many observations of which these traumatic or accidental cases were particularly confirmatory. One of these he cited, in which a pistol-ball lodged in the third convolution alone, without further damage; and in this case articulate speech alone was lost, while no other mental faculty was affected. The author held that, as education was almost confined to the right side, which took the initiative and directed the left, so articulate language, with the other results of education, assumed its seat in the left side of the brain. He argued for an original organic force which determined the left side of the brain rather than the right. Professor Broca further proposed the adoption of more precise terminology for expressing the various forms of defective speech. The words he suggested were: *alogia*, loss of speech from defective intelligence; *amnesia*, from defective memory of words; *aphemia*, from a defect in the special faculty of language; and *alalia*, from defective articulation.

3. Mr. DUNN argued for the dependence of utterance upon the corpus striatum, "the point of emission of the orders of the 'will' to the muscles."

In the discussion which followed the reading of the papers,

Dr. BATEMAN stated that he had examined twenty-seven cases of aphemia, and in five only was the cerebral lesion limited to the third frontal convolution or its immediate neighbourhood, and in five there was no lesion at all.

Dr. HUMPHRY was inclined to regard the brain as a whole, and its functions as spread over the whole, rather than that any one should be confined within exact and definite limits. He related a curious case, in which the patient so contradicted every expression the moment it was uttered, that it was absolutely impossible to arrive at any conclusion.

Dr. J. **Thompson Dickson** supported Professor Broca's view, but extending the localisation to in and near the third frontal convolution. He argued for Dr. Moxon's theory of education. Aphasics, on recovery, learnt a new vocabulary, much in the same manner as a child learned to speak. In this process, the right side of the brain became educated; and, should left hemiplegia and aphasia follow, articulate speech was altogether and irrecoverably lost. He maintained that the few words which an aphasic often had left were due to impressions in cells left intact, rather than to the last idea in the mind when the attack occurred.

Dr. **Crisp** and some others argued for habit as determining the right rather than the left side.

M. **Broca** strongly maintained his argument of an orginal organic force.

The discussion was very spirited; Professors Béhier, Vogt, and Heynsius taking part in it.

The Generation of White Blood-Corpuscles By M. **Behier**.—Recognising the labours of Professors Bennett and Virchow, the author stated that white corpuscular multiplication was considered dependent upon two causes: the one associated with enlargement of the spleen, in which the corpuscles were large and fully developed; the other, by far the more rare, associated with enlarged lymphatic ganglia in various regions, in which the globules were smaller than normal. Not infrequently both these forms were complicated with lymph-corpuscular deposits in the liver, kidneys, mucous membrane of the stomach, intestinal canal, and pleura. Such deposits had hitherto only been recognised as secondary; but a case of leukæmia had lately come under his notice which established that such conditions might be primary, at all events as regarded the Peyerian patches and solitary glands. In this particular case, of which Professor Béhier exhibited specimens, the patches of Peyer were thick, broad, and opaque; the solitary glands were opaque, white, and pedunculated, of about the size of a millet-seed, and in microscopical structure were formed of a reticulum of fine fibres stuffed with lymph-corpuscles or *lymphoma*. All these glands were very readily separable; in fact, numbers fell out, leaving circular lacunæ in the mucous membrane; but the spleen, lymphatic glands, and other organs, were perfectly sound. The conclusions which the author drew from the case were confirmatory of Virchow's view regarding the Peyer's patches and solitary glands as forming part of the same system as the spleen and lymphatic ganglia; the high physiological importance of the vesicular glands of the intestinal canal, and their influence as modificators of the blood pointing them a position among the hæmatopoietic organs.

The discussion which followed was supported by Dr. Hughes Bennett and Dr. A. Heynsius.

The Physiology of Pain. By G. **Rolleston**, M.D., F.R.S.—The author said it was a common mistake to suppose that pain was an exaltation and excitement of function, for it might also be occasioned by a lowering of functional activity, brought about mainly by starvation or shock. Starvation was produced by a cutting off of the supply to the tissues from the blood-vessels which, by an excessive action of the vasomotor nerves, contracted so forcibly as to cause the current to cease. The pain from shock was produced by a sudden impact without the intervention of blood-vessels, though not without the intervention of the tubes containing nerve-matter. The author, in the course of his paper, made some quotations from the work of Professor Niemeyer whose view he was inclined to maintain. The author then adverted to a number of facts bearing on these theories, humorously concluding with the observation that they would side with either of the two theories, both of which (in defiance of metaphysicians) he was inclined to hold.

Dr. **Hughes Bennett** objected to the theory of pain as advanced by Rolleston. He argued, that "pain was the consciousness of a very disagreeable impression," and maintained for the metaphysical, rather than physical, view of the phenomenon.

Dr. **Crisp**, Dr. **Anstie**, Dr. **Humphry**, Dr. **Cleland**, and Dr. **Richardson**, took part in the brief discussion which followed.

The following papers, among others, were also read in this department.

Professor Bennett—Report on the Action of Mercury on the Secretion of Bile.

Dr. B. W. Richardson, F.R.S.—Report on the Physiological Action of the Methyl Series.

E. R. Lankester, Esq.—Report on the Investigation of Animal Substances with the Spectroscope.

W. H. Flower, Esq., F.R.S.—The Homologies and Notation of the Teeth of Mammalia.

Dr. Cobbold, F.R.S.—Flukes from the Indian Elephant, with Remarks on their Affinities.

Dr. Anstie—Certain Effects of Alcohol on the Pulse.

Professor Rolleston, F.R.S.—The Pectorales Muscles.

Dr. Richardson, F.R.S.—The Transmission of Light through Animal Bodies.

Dr. Crum Brown—The Connexion between Chemical Constitution and Physiological Activity.

Dr. Thompson Dickson—Vitality as a Mode of Motion.

Dr. Macalister—The Comparative Anatomy and Homologies of the Atlas and Axis.

Professor Cleland—Is the Eustachian Tube opened or shut in Swallowing?

Professor Cleland—The Relation of the Limbs to the Segments of the Body.

Professor Heynsius—The Albuminoid Substances of the Blood-Corpuscles.

E. Ray Lankester and H. N. Moseley—The Nomenclature of Mammalian Teeth and the Teeth of the Mole.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, May 19th, 1868.

John Simon, Esq., F.R.S., President, in the Chair.

Reports from the Committee on Morbid Growths were read.

Dr. **Peacock** showed, for Dr. **Hooper May** of Tottenham, a specimen of Ruptured Heart taken from a laundress who had suffered for some weeks with pain in the chest, but was quite able to work. She one day suddenly fell down insensible, and became deeply collapsed, breathing slightly, the pulse imperceptible. Her consciousness returned for a short time, when she was able to say, "Lift me up;" but died three-quarters of an hour afterwards. After death, the pericardium was found distended with blood. A dark line, an inch and a half long, was observed at the septum ventriculorum, from which a clot was squeezed out. An aperture, about the size of a goose-quill, was found communicating with the left ventricle.

Dr. **Kelly** exhibited a specimen of Aneurism of the Abdominal Aorta, taken from a man who had been under the care of Sir W. Fergusson in King's College Hospital. A tumour had been growing in the left side of the abdomen for eighteen months, and of late had increased rapidly. On admission, in the beginning of February, it extended from the lower rib on the left side down to Poupart's ligament, and from two inches to the right of the median line round to the spine. Over this area was absolute dulness; pulsation could be felt laterally and vertically, but no *bruit* was heard. During the next six weeks, the aneurism gradually extended down the thigh; and by the middle of March it had reached six inches below Poupart's ligament. On March 14th, Sir W. Fergusson tied the femoral artery in Hunter's canal. At first, pulsation ceased, and the tumour became smaller and harder; but afterwards it returned, and in a month the man died from exhaustion. At the *post mortem* examination, the aneurism was found to have sprung from the lower inch and a half of the abdominal aorta, at its posterior aspect; then it extended laterally, but more especially on the left side, where the tumour involved the whole of the left half of the abdomen, pushing the peritoneum before it. Lower down, it had followed the course of the psoas and iliacus muscles, and had passed under Poupart's ligament into the thigh. No distinct wall could be made out; but the muscles and fasciæ were stretched over it in front; behind, the capsule of the hip-joint and the upper five inches of the femur were laid bare. On the right side, a globular tumour, about three inches in diameter, was found in front of the right kidney, and communicating with the larger sac. Here the wall was formed of the peritoneum, which had been stripped from the abdominal wall. Thus in front everywhere the sac had very thin coats; but they were strengthened by layers of fibrine which had been deposited within. In the thigh, there was no laminated fibrine, but only black coagulum. The bodies of the lower four lumbar vertebræ were partially destroyed in front, but not the intervertebral substances. The aorta was very atheromatous below. The femoral artery was not obliterated; at the point of ligature, the inner and middle coats were found divided, and a small piece of soft non-adherent fibrine lay in the vessel. The iliac vessels on the left side were adherent to the aneurism on its inner aspect; and the vein was so pressed upon, that its canal would only admit a probe. The left leg was very œdematous.. The heart and other viscera were healthy.

Dr. **Kelly** showed a case of Malformation of the Heart with Patent Foramen Ovale, in an infant five months old, who had cyanosis; also a specimen of Spontaneous Rupture of the Aorta from a male aged 77. There was no aneurismal sac, and very little atheroma of the aorta.

Mr. BICKERSTETH of Liverpool showed a specimen of Aneurism affecting the upper end of the Shaft of the Tibia, taken from a patient aged 11, who, eighteen months before, had received a kick on the part. This was followed by swelling, which increased considerably three or four months afterwards, after receiving a second blow. There was, however, little or no pain. Several authorities had seen the case; Mr. Syme believing it to be abscess; Mr. Paget, malignant disease; and Sir William Fergusson, aneurism. The last view was shortly found to be correct. The limb having been amputated, an aneurism was found in the bone, with fibrous bands intersecting the tumour, cysts, and diseased blood vessels. There was no malignant matter.

Mr. BICKERSTETH next exhibited a specimen showing great Disorganisation of the Ankle-joint, with New Growth resembling the osteoid form of cancer. It was referred to the Committee on Morbid Growths.

Dr. ROBINSON, Scots Fusilier Guards, brought forward a case of Perforating Ulcer of the Duodenum from a man aged 36. He had suffered from dyspeptic symptoms from time to time, and seemed latterly to have suffered pain in the abdomen when laughing. While he was playing rackets, severe pain came on in the abdomen, followed by peritonitis, collapse, and death in twenty-four hours. A perforating ulcer of the duodenum, peritonitis, and adhesion of the intestines, were found after death.

Mr. DE MORGAN showed a Recent Tumour of the Breast, which had returned after operation seven years before. It felt very nodulated, and, on removal, presented the appearance of a cystic tumour. The growth was of a well marked adenoid character.

Mr. DE MORGAN exhibited a Cystic Encephaloid Tumour, which he had removed from a female aged 55. There was no history of cancer. Five years before her admission into the Middlesex Hospital, she noticed a nodule in her breast; and in the following year, a second, higher up. The disease grew rapidly. Before her admission, an ulcer formed above the nipple; and from it severe hæmorrhage took place, both before and after she came to the hospital. The tumour was circumscribed, and the skin flattened. It was excised; it weighed four pounds. There were found cysts containing creamy-looking fluid, cells, and nuclei of all sorts and fibroid growth. There was no fusion of the skin with the disease. There was no colloid disease. The patient died two years afterwards, of scirrhus of the other mamma. The breast operated on remained healthy.

Dr. GREEN exhibited a case of Malformation of the Heart from a child three months old. The aorta sprang from the right ventricle, at the septum ventriculorum. There were no pulmonary arteries. There was marked cyanosis.

Mr. H. ARNOTT showed specimens from a patient who died of Leprosy in the Middlesex Hospital. The fingers and toes were ulcerated, and the nails gone. The skin was pale brown and loose. The nose was depressed. One gland in the thigh was very large. A fusiform enlargement was found on the ulnar nerve, and the nerve was larger than usual.

Mr. ARNOTT brought forward a specimen of Cancer affecting the Spine, Pelvis, and Femora. The patient, a woman, had cancer of the breast; her legs had been painful two years, and ultimately became paralysed. The specimen was referred to the Committee on Morbid Growths.

Dr. M. MACKENZIE showed an interesting tumour of the Larynx, taken from a female aged 56, who had suffered from stridor and dyspnœa on the slightest movement, but which ceased in the recumbent posture. The area of the right and left side of the glottis were unequal. Tracheotomy was performed. On the third day, violent asthma came on; and she died ten days after the operation. It was found, after death, that the left recurrent laryngeal nerve was imbedded in one of several very small tumours, some of which penetrated into the trachea. Dr. Fenwick had examined it microscopically, and found it to consist of striped muscular tissue.—Dr. HYDE SALTER had seen the case latterly, and gave his reasons very clearly for believing the case, before the operation, not to have been one of true asthma, the clinical history being quite against such a conclusion. The asthma, which supervened after tracheotomy, was, in all probability, due to the operation.—The specimen was referred to the Committee on Morbid Growths.

Mr. HINTON showed a specimen of Disease of the Internal Ear, from a child who died of tuberculosis.

Dr. CRISP exhibited a quantity of sketches and wax models of the so-called Typhoid Ulceration in the Intestines of Pigs, which resembled small-pox; a specimen of Tubercle in the Mesentery, Blood-Tubercle, etc.

Dr. CHURCH showed a specimen of Congenital Malformation of the Left Auricle of the Heart.

Dr. WILSON FOX showed the Stomach of a boy who, on April 30th, swallowed an ounce of hydrochloric acid. On May 5th, he vomited a quantity of blood; again on the 12th; and died on May 14th. The stomach was found adherent to the colon; and there was an ulcer close to the pylorus, with eroded artery.

Mr. BARWELL exhibited a Stomach taken from a man aged 37, who, three weeks before death, had come for advice, thin and emaciated. He at first had vomiting. He died of exhaustion. After death, an old perforation was found in the stomach, communicating with a large sac, formed apparently by the anterior layer of the great omentum. The pancreas was somewhat hard, and resembled scirrhus.—Mr. DE MORGAN detailed a similar instance with a large open and chronic ulceration lying against the wall of the abdomen.—Mr. MOORE also mentioned having seen a chronic case where there was nothing to prevent the contents of the bowel going into the peritoneum.

The following were also brought forward for exhibition:—Dr. Dickinson: Enlargement of the Viscera from a case of Rickets. Sir Duncan Gibb: Calcareous Exfoliations from the Thyroid Cartilage; and a Laryngeal Tumour. Mr. Weeden Cooke: Gelatinous Tumour of the Breast; and Fibroid Tumour of the Breast. Dr. Murchison: Rupture of the Aortic Valves, and Rupture of one of the Chordæ Tendineæ of the Mitral Valve; Necrosis of the Larynx; and (for Dr. Horace Jeaffreson) Cancer of the Lumbar Vertebræ, Left Kidney, and both Suprarenal Capsules. Mr. Osman Vincent: Abscess between the Vagina and Rectum. Dr. Martyn: Gangrene of the Foot.

CORRESPONDENCE.

THE WESTMINSTER HOSPITAL.

SIR,—On the return of the secretary to London, a detailed answer will doubtless be given to the various statements made by your reporter on the condition of the Westminster Hospital. As physicians, however, to the in-patients, and knowing well, for many years, the extreme liberality of the Governors in all matters connected with the dietary of the hospital, we do not allow a moment to elapse without protesting in the most emphatic manner against the charge of parsimony brought against them in this respect. It is quite true, as your reporter says, that no "extras" are allowed with "full" and "middle" diets; but he does not state, with anything like the prominence the fact deserves, that any physician or surgeon can put a patient on nominally "low" diet, but at the same time can order with it almost any reasonable extra he may think necessary. Thus with "low" diet mutton chops, one or more; beef-tea in any quantity, milk, eggs, puddings, fish, coffee, cocoa—some or even all of these articles may be ordered at the discretion of the medical officer. Nor let it be supposed that this is an exceptional practice, and only adopted in very urgent cases. So far from this being so, we believe that, at this moment, indeed it is the case almost invariably, half or two-thirds of the patients are dieted in this way. They are nominally on "low" diet, but practically on one the exact reverse of "low," and certainly the reverse of parsimonious.

We do not know, as some of our colleagues are out of town, whether your reporter put himself into communication with any of the physicians or surgeons who have the care of the *in-patients*. We scarcely think that he could have done so, otherwise he would not have hazarded the assertion that the dietary here "is not on so liberal a scale as is usual in other London hospitals." On the contrary, we believe that, on an impartial investigation, it will be found to bear comparison with that of any other hospital in the kingdom; and we are convinced that, however low the average cost of each patient may be in the Westminster Hospital, it is not the result of a scanty, or in any way defective dietary.

We are, etc., GEORGE T. FINCHAM, M.D.,
C. B. RADCLIFFE, M.D.,
Westminster Hospital, Aug. 31st. *Physicians to the Hospital.*

⁂ Our information as to the dietary of the hospital was derived chiefly from the Westminster Hospital Diet Table corrected up to July, and supplied to us by the Secretary, which official we deem to be, from our experience, the most reliable authority on such subjects in all London hospitals. Our correspondents allow that our reporter's remarks as to "full" and "middle" diets are correct. They state, however, that a large proportion of their patients are put on "low" diet, but receive a liberal supply of extras. On turning to "low" diet in our corrected table, we find it to consist of half a pound of bread daily; one pint of tea with sugar and milk for breakfast; tea with sugar and milk for supper; and for dinner, one pint of broth *or* half a pound of bread, *or* rice-pudding, *or* one pint of beef-tea, *or* a chop *or* fish. Bread-pudding is also mentioned in another part of the table. The extras with this diet are porter, *or* wine, *or* spirits; but in addition, a note is added to the following effect:—"Arrowroot, sago, vermicelli, or coffee, allowed as extras to

Low and Spoon diet, on the written order of the medical officers, communicated to the matron, who will make a weekly return of the same." But beyond this, the Diet Table mentions no other extras such as our correspondents are in the habit of giving with "low" diet. We are, therefore, at a loss to understand the system of dietary, as it appears from our correspondents' account to be certainly, as dispensed by them, contrary to the printed regulations of the hospital.

REPRESENTATION OF THE MEDICAL PROFESSION IN THE MEDICAL COUNCIL.

SIR,—I have been much interested by the letters that have appeared in your JOURNAL relative to the representation of the profession in the Medical Council. There is no doubt that the members of the profession at large are not satisfied by the manner in which the representatives of the various Colleges are returned. I, in common with many, am in favour of Dr. Prosser James's plan, which gives to each member of College or Hall a vote to elect the representative, and takes out of the hands of a few a monopoly that they have no right to possess. Why should not a Member have as much right to vote as a Fellow? Is he supposed to be an inferior animal, or incapable of exercising the franchise? As to the question of expense in collecting the votes, I look upon that as a very puerile objection. Dr. Prosser James's plan has also the advantage of requiring no fresh Act of Parliament in order to carry it out; and I trust that, during the next session of the Medical Council, the question will be settled in accordance with his views.

I am, etc., FREDERICK O'CONOR, M.D.

Hoxton House Asylum, Hoxton, September 1868.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

BRIGHTON UNION.

INCREASE OF SALARY OF THE MEDICAL OFFICER.—Mr. D. Richards, the medical officer of the Brighton Workhouse, applied lately for an increase of salary; and, at a meeting of the guardians on August 18th, the following report was presented by the Officers' Duties Committee. We give it in full, as it contains in brief, a very instructive outline of the manner in which the duties of a workhouse medical officer may be increased.

Your Committee have had under consideration the matter referred to them, and find that Mr. Richards was appointed medical officer of the workhouse and industrial schools in March 1864, the salary assigned to him for his duties connected with the workhouse being £100 *per annum*, and for the schools £70 *per annum*, all drugs and medical appliances being provided by the directors and guardians. The grounds on which Mr. Richards solicits an augmentation of his salary appear to be the great increase in the average number of inmates of the workhouse and schools, as well as in the number of sick inmates attended daily by him, and an increase of special duties, amongst which may be enumerated—1. An outbreak of small-pox in the year 1866, during which he attended about 150 patients at the workhouse, many of whom were admitted to the wards, not as paupers, but with a view to check the spread of the disease in the localities where it originated. 2. An epidemic of cholera, also in the year 1866, when the wards were thrown open to all persons attacked. At this period Mr. Richards was constant in attendance, day and night, and no special remuneration was awarded to him for his services, as in the case of the out-door medical officers. 3. The increase in the number of insane and imbecile inmates of the workhouse. At the date of Mr. Richards's appointment, the number of this class of inmates was 18; at the present time they amount to 32, and the medical officer is required to make quarterly returns to the Commissioners in Lunacy of all such cases, with particulars of their mental condition, etc. 4. The workhouse medical officer is now called upon to make half-yearly reports to the Poor-Law Board of all the cases attended by him in the infirmary, and of the general state and condition of the establishment. 5. Increase of duty in writing prescription lists, the diet book, and the weekly list of sick persons under medical treatment, etc., which duty has now become so heavy as to oblige the medical officer to pay a person to assist him in his work. 6. The increase in the number of serious cases in the infirmary and midwifery cases, the latter being in many unions and parishes considered extras, and paid for as such. 7. The supervision of the removal of the sick to the new workhouse, and their re-classification in the wards assigned to them. 8. The recent epidemics of itch, whooping cough, and measles at the industrial schools, involving the medical officer's attendance every other day, instead of twice a week as at ordinary times.

The report went on to state that the average number of inmates of the workhouse, schools, and infirmary, had increased since the year 1863, by upwards of 150; and also to state what was the workhouse accommodation and amount of medical officer's salary in about twenty metropolitan and provincial parishes and unions, the amount varying from £350 to £105; and concluded thus:—Your Committee, after carefully considering all the facts elicited during their inquiry, and having regard to the amount of salary paid to other workhouse medical officers, recommend the Board to augment Mr. Richards' salary to the extent of £50 *per annum*, in the following proportions, viz.: £40 for the workhouse and £10 for the industrial schools, such augmentation to be subject to the approval of the Poor-Law Board.

The recommendation of the Committee was confirmed; several of the members expressing a high opinion of the manner in which Mr. Richards performed his duties. One gentleman (Mr. Phillips) observed that, in his opinion, the supply of medicines by the workhouse and not by the medical officer was a great improvement. "It was a bad system for a parish medical officer to find medicines, especially in a large parish like Brighton. The Poor-law Board had insisted on great improvements being effected in workhouse infirmaries throughout the country, and Brighton must not lag behind. We must not be too economical in a matter of this kind. If it were possible to more quickly alleviate pain by the use of expensive medicines, then it was right and the duty of the Board to furnish such medicines. He wished to take the opportunity of suggesting that the Board should adopt a similar system with regard to the out-door poor to that of the in-door poor, namely, that they should furnish all medicines supplied to them."

We rejoice to find that liberality and justice, both to their medical officers and to the poor, prevail in the Brighton Board of Guardians; and we would point out their conduct as an example worthy of being followed.

SHEFFIELD UNION.

PAYMENT OF THE MEDICAL OFFICERS.—At the weekly meeting of the Sheffield Board of Guardians on August 26th, Mr. Bower, one of the members, proposed that a committee consisting of seven members be appointed to inquire into the working of the medical staff of the union. He expressed an opinion that the board were paying sadly too much for medical services, and that the cost of these services might be curtailed with advantage. The salaries paid to Messrs. Skinner, Walker, Griffiths, and Pratt, the medical officers for the Sheffield township, amounted to £40 per quarter, and £160 a year. The cost of what were described as "extras" was very heavy, being more than the amount of the salaries. This seemed to him to be very strange, and, as business men, they should take care to ascertain how it was that they paid more for extras than for services. The amount of one quarter's "extras" due to Mr. Skinner was £16 : 10; Mr. Walker, £11 : 9; Mr. Griffiths, £6 : 19; and Mr. Pratt, £13 : 4; the whole making a total of £48 : 12 for the quarter, and £174 : 8 for the year. The cost of one quarter's vaccination was—Mr. Skinner, £15 : 1 : 6; Mr. Walker, £9 : 9; Mr. Griffiths, £7 : 10; and Mr. Pratt, £7 : 12; the quarter's total being £44 : 11; and the yearly total, £178 : 4. The sum paid by the Sheffield township alone for medical services was £532 : 12 a year, and the total cost of medical services in all the townships was £879 : 16. In addition to this, £40 was being paid to the public prosecutor . . . . The Chairman supported the proposition, and said if no good resulted from the labours of the committee, no harm would be done. He had heard complaints in some quarters of the way in which the medical officers vaccinated and discharged their duties generally. He did not now intend to make any charges, but the committee would be able to inquire fully into the complaints and see whether they were well founded or not. The proposition for the appointment of a committee was carried.—On referring to the *Medical Directory*, we find that the Sheffield township contains an acreage of 3028, and a population of 87,700. There are four medical officers, each of whom receives a salary of £40 a year. Certainly, the salaries of the Sheffield Poor-law medical officers are not so very enormous; especially when compared with those given in other large townships. Thus we find Liverpool, with a population of 269,742, and an acreage of 2,220, giving £1.515 in salaries (which include all extras except vaccination fees). Bristol, with a population of 66,027, gives £280 in salaries; and Plymouth, with 62,600, gives £354.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from August 26th to Sept. 1*st* (*both inclusive*).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	30.183
Highest reading of do. (corrected & reduced), on Sep. 1st, 10 P.M.	30.297
Lowest ditto Ditto on Aug. 27th, at 10 A.M.	30.009
Range of pressure during the week	00.288
Mean temperature of air in shade	62.8
Mean temperature of evaporation	58.7
Mean temperature of dew-point	55.2
Mean degree of humidity (saturation=100)	77.
Mean maximum temperature of the week	67.0
Mean minimum temperature of the week	50.5
Calculated mean temperature of the week	58.7
Maximum temperature in shade, on Sept. 1st	76.1
Minimum temperature (protected), on August 26th	45.7
Minimum temperature (exposed on grass), on August 26th	39.5
Range of temperature during week	36.6
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on Sept. 1st	130.1
Lowest ditto ditto on August 29th	110.0
Mean amount of clouds (0—10)	4.7
Total rainfall (which fell on 27th August)	0.03 inch
Mean amount of ozone (0—10)	3.5

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M	0	0	0	0	0	1	3	3	0	4.1
2 P.M	0	0	0	0	0	1	4	2	0	4.0
10 P.M	0	0	0	0	0	1	2	1	3	2.1

Mean force of wind (0—12) 3.4

The weather of the past week has been fine. Atmospheric pressure has increased, and has been more uniform; while temperature has also increased, though its range has been somewhat greater than during the previous week. Moisture has been considerably less. Winds have been chiefly westerly, and of moderate force. The general health continues good.

INDIAN MEDICAL OFFICERS IN ABYSSINIA.

The *Army and Navy Gazette*, we are happy to see, favourably notices a correspondent's letter directing attention to the anomaly of leaving altogether out in the cold the Indian medical officers who formed the great part of the medical staff in the Abyssinian expedition; whereas, every surgeon of an European infantry or cavalry regiment of the line has received a very high substantive promotion, carrying with it rank, pay, and allowances. We cannot for one moment believe that it is the intention of Government to allow the services of the Indian medical officers to pass by unrewarded in this way, but that they will either be decorated with C.B. or C.S.I., receive brevet rank, or be allowed to count one or more years as service for pension.

Strychnia in Beer.—It is said that several large brewers are experimenting on the properties of strychnia, with a view of testing how far it may be used safely in bitter ales.

Baby-farming in France.—Every year 20,000 children born in Paris are sent into the *banlieue* and the departments to be nursed. It is shown by statistics that of these only 5,000 returned. Out of 100 children reared by the parents, 17 die in the first year, whilst the mortality amongst children handed over to the care of nurses is from 34 to 90, according to the department.

Explosion of Coal-gas.—One of those serious explosions which occasionally happen by the mixture of coal-gas and air, took place at Weymouth on Saturday night, on the premises of Mr. Hann, a confectioner of that town. No escape of gas had been noticed, and yet at about ten o'clock so severe an explosion took place that the whole contents of the shop were blown into the street, and the building completely wrecked. The shopwoman was seriously injured, one of her legs being broken, and the flesh torn off the other and her arms. Some children in bed upstairs were unhurt, but the opposite houses were damaged and some of their inmates hurt.

University of London.—Preliminary Scientific M.B. Examination. Entire. Examination for Honours.

Chemistry and Natural Philosophy.

First Class.

Whitmell, C. T. (Exhibition), private study

Second Class.

Ottley, W., University College
Warner, F., King's College
Muirhead, A., University Coll. } equal
Nankivell, C. A., ditto

Third Class.

Rayne, C. A., Owens and Royal Manchester School of Medicine
Abraham, P. S., University College and Royal College of Science, Dublin

Zoology.

First Class.

Carey, F. J. (Exhibition), Guy's Hospital
Abraham, P. S., University College and Royal College of Science, Dublin

Second Class.

Maybury, W. A., St. Thomas's Hospital } equal
Nicol, P., Aberdeen University
Nankivell, C. A., University College

Botany.

First Class.

Carey, F. J. (Exhibition), Guy's Hospital
Goodlee, R. J. (worthy of Exhibition), University College

Second Class.

Nicol, P., Aberdeen University
Swanwick, E. M., University College

Third Class.

Addy, B., St. Thomas's Hospital } equal
Wardale, J. A. W., University College
Watson, W. G., University College
Westcott, W. W., University College
Burn, G. W., private study } equal
Rose, W., King's College
Muirhead, A., University College
Deakin, C. W. S., General Hospital, Birmingham

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 27th, 1868.

Bridges, William Percy, Cirencester
Clarke, John Chaundy, Gildersome, near Leeds
Lightburne, Joseph, Geashill, King's County, Ireland
Martin, William Young, Little Hulton, near Manchester
Raine, George Rolph, Billericay, Essex
Robertson, Frederick, Peckham
Wade, Charles Cross, Weston-super-Mare

At the same Court, the following passed the first examination.

Allen, Thomas, King's College Hospital
Box, William Henry, Westminster Hospital
Eager, Wilson, Guy's Hospital
Matthews, James Forrester, Middlesex Hospital
Parkinson, Charles Henry Watts, Guy's Hospital
Slaughter, William Budd, St. Thomas's Hospital
Stone, Vincent, St. Bartholomew's Hospital

Indian Medical Service.—The Military Secretary, India Office, presents his compliments to the Editor of the British Medical Journal, and begs to enclose a list of the candidates for Her Majesty's Indian Medical Service, who were successful at the competitive examination at Chelsea in February 1868, and who have undergone a course of instruction at the Army Medical School, together with the total number of marks obtained at the examinations at Chelsea and at Netley.

Order of merit and names.	Studied at	No. of marks.
1. Cunningham, D. D.	Edinburgh	6945*
2. Whitwell, H.	Edinburgh	5550
3. Cameron, A.	Glasgow	4790
4. Evers, B.	Edinburgh	4245
5. Carmichael, J. C. G.	Aberdeen	4240
6. Harvey, W.	London	3975
7. Grant, A. G.	Aberdeen	3925
8. Hay, G. W. R.	Edinburgh	3925
9. Jackson, W.	Edinburgh	3915
10. MacLaren, G. G.	Edinburgh	3890
11. Monteath, J. J.	Edinburgh and Ireland	3698
12. Roche, A.	Ireland	3676
13. Stevens, R. H.	Edinburgh and London	3667
14. Martin, P. R.	Ireland	3430
15. MacDermott, P. J.	Ireland	3425
16. Dalgairns, A. E.	Edinburgh	3367
17. Mookerjee, P. N.	Edinburgh	3355
18. McArthur, A.	Aberdeen	3230
19. Fitzpatrick, J. F.	Ireland	3174
20. Archdall, H., M.D.	Edinburgh and Ireland	3125

* Obtained the Herbert Prize.

MEDICAL APPOINTMENTS.

Adams, J. E., Esq., appointed Assistant-Surgeon to the London Hospital.
*Binns, W. H., Esq., appointed Resident Surgeon to Trinity College, Glenalmond.
Fenwick, Samuel, M.D., appointed Assistant-Physician to the London Hospital.
Moore, J. Daniel, M.D., F.L.S., appointed Deputy Coroner for the County Palatine of Lancaster.

MEDICAL VACANCIES.

THE following vacancies are declared:—

ABBEY POOR-HOUSE AND LUNATIC ASYLUM, Paisley—Surgeon.
ASYLUM FOR IDIOTS, Earlswood—Assistant Medical Officer.
AXBRIDGE UNION, Somersetshire—Medical Officer for District No. 2.
BIRMINGHAM GENERAL HOSPITAL—Resident Medical Officer and Tutor.
BLACKBURN UNION, Lancashire—Medical Officer for the Workhouse.
BRIXWORTH UNION, Northamptonshire—Medical Officer for District No. 3.
CARNARVONSHIRE AND ANGLESEY INFIRMARY AND DISPENSARY, Bangor—House-Surgeon.
DAILLY, Ayrshire—Parochial Medical Officer.
DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon.
HARTLEPOOL UNION, Durham—Medical Officer for the Greatham District.
HUDSON'S CHARITY, Selby—Surgeon-Accoucheur.
LOCHBROOM, co. Ross and Cromarty—Parochial Medical Officer.
LURGAN UNION, co. Armagh—Medical Officer for the Moira Dispensary District.
MACCLESFIELD DISPENSARY—House-Surgeon.
OPHTHALMIC HOSPITAL, Southwark—Surgeon.
ORSETT UNION, Essex—Medical Officer for the Orsett District and the Workhouse.
PEEBLES—Inspector of Factories, Surgeon to the County Prison, and Surgeon to the County Poor-house.
PEEBLES, EDDLESTON, STROBO, and MANOR, Peebles-shire—Parochial Medical Officers.
QUEEN'S HOSPITAL, Birmingham—Physician.
RIPON DISPENSARY AND HOUSE OF RECOVERY—Resident Dispenser.
ROTHES, Morayshire—Parochial Medical Officer.
ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.
ROYAL PIMLICO DISPENSARY—Surgeon-Dentist.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Physician; Physician-Accoucheur; Surgeon.
ST. LEONARD'S HOSPITAL, Sudbury, Suffolk—Medical Officer.
ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street—Surgeon
ST. PANCRAS WORKHOUSE—Medical Officer for the Female Side.
SALFORD AND PENDLETON ROYAL HOSPITAL AND DISPENSARY, Manchester—District Surgeon.
SELBY, Yorkshire—Certifying Factory Surgeon.
STRATHMIGLO, Fifeshire—Parochial Medical Officer.
WAKEFIELD HOUSE OF CORRECTION—Surgeon.
WESTERN GENERAL DISPENSARY, Marylebone—Physician-in-Ordinary
WOODSTOCK UNION, Oxfordshire—Medical Officer for the Deddington No. 2 District.

DISINFECTION OF STREETS AND CONFINED PLACES.—Dr. Whitmore has ordered periodical watering of streets, courts, alleys, and confined places in Marylebone, with disinfecting liquid during the last six weeks. In Paddington, both carbolic acid and Condy's liquid have been lately used for deodorising the sewers and gullies.

THE ORNAMENTAL WATERS IN REGENT'S PARK.—The Regent's Park is again beautified by its elegant lake. The whole has been cleaned out, made of equable depth, 4 feet to 5 feet, and the bottom and sides laid with concrete. It was found that the sewage of several houses in the vicinity emptied itself into the lake. This has, of course, been remedied.

QUEKETT MICROSCOPICAL CLUB.—At the last meeting, at University College, Mr. Durham, F.L.S., President, in the chair. A paper was read by Mr. Martinelli on "The Tubules of Crabshell." Among the numerous objects exhibited in the room were two species of young hippocampi, the electric spark from induction coil with magnesium terminals, living and mounted specimens of mosquitoes and British gnats, showing arrangement of lancets, wings, etc.

MORTALITY BY CHOLERA AND DIARRHŒA.—No less than 417,499 lives have been destroyed by these two diseases in England and Wales in the twenty years 1847-66—viz., 106,299 by cholera and 311,200 by diarrhœa. The deaths to 1,000,000 of population in each year from cholera and diarrhœa respectively were—in 1847, 46 and 676; 1848, 110 and 638; 1849, 3,034 and 1,075; 1850, 50 and 645; 1851, 64 and 833; 1852, 77 and 984; 1853, 244 and 784; 1854, 1,094 and 1,091; 1855, 45 and 689; 1856, 40 and 734; 1857, 60 and 1,111; 1858, 35 and 719; 1859, 45 and 940; 1860, 17 and 494; 1861, 42 and 944; 1862, 25 and 552; 1863, 40 and 735; 1864, 45 and 798; 1865, 62 and 1,133; 1866, 685 and 818. The returns for London show that in twenty-one years 1847-67 cholera and diarrhœa caused 88,247 deaths—viz., 34,541 by the former, and 53,706 by the latter, the deaths to 1,000,000 of population in each year from cholera and diarrhœa, respectively, being in 1847, 53 and 898; 1848, 291 and 853; 1849, 6,182 and 1,705; 1850, 55 and 813; 1851, 90 and 1,085; 1852, 67 and 983; 1853, 359 and 1,011; 1854, 4,288 and 1,257; 1855, 58 and 804; 1856, 59 and 866; 1860, 18 and 496; 1861, 60 928; 1862, 37 and 607; 1863, 55 and 821; 1864, 53 and 981; 1865, 65 and 1,206; 1866, 1,842 and 1,036; 1867, 78 and 954. The high mortality from diarrhœa among children still continues. Of the 300 deaths registered in London during the week ending last Saturday, July 11, 278, or 93 per cent., were those of children under two years of age. Of the 19 deaths registered from cholera 15 were those of children. Although such a high rate of infant mortality from diarrhœa is lamentable, still it is assuring to learn that up to the present time, cholera and diarrhœa have not become epidemic in London.

APOTHECARIES' HALL.—At the recent competitive examination for the prizes in botany, annually given by the Society of Apothecaries, the successful candidates were:—1. Francis James Carey, Guy's Hospital, a Gold Medal; 2. Thomas Calcott Fox, University College, a Silver Medal and a Book.

ROYAL SEA-BATHING INFIRMARY, MARGATE.—The annual meeting of the governors of the above institution was held lately at the Hospital. The total number of patients under treatment had, during the year, been 894, the greater part being from London and its neighbourhood. More than half were discharged cured, and the great majority of the remainder left materially benefited. There are 250 beds now in the hospital, all of which are fully occupied during the greater part of the year, and more than half the number during the winter months. The institution is now kept open for the whole year instead of the summer months only, this desirable alteration having been accomplished through the success attending the "fund in aid" derived from the 5s. annual subscriptions inaugurated thirteen years since by the Rev. Mr. Hodgson the honorary secretary; the number of subscribers to this fund last year amounting to about 7,000. The amount produced last year had been £1,653, During the last year an addition had been made to the north wing, by which accommodation had been obtained for twelve more beds, and another addition was contemplated on the west side, which would provide accommodation for eighteen more beds. The total income for the year, including £2,000 received from patients, £1,653 from 5s. subscriptions, £1254 donations, and £450 legacies, had been £13,962 19s. 11d., and after investing £5,500 and paying all expenses of the hospital, there was a balance in favour of £1,208 9s. 3d. The chairman, in moving the adoption of the report, said it was essentially a London hospital, nearly all its patients coming from the metropolis. The report was adopted, and a vote of thanks passed to the Rev. Mr. Hodgson for his valuable services. According to annual custom the hospital was then thrown open for a public visitation, and a large number of visitors to Margate and Ramsgate availed themselves of the opportunity of inspecting it. At three o'clock in the afternoon, a public meeting was held in the dining-hall, for the purpose of explaining the objects and usefulness of the institution.

EPIDEMICS IN ENGLAND.—The following reports showing the prevailing epidemic diseases throughout the country during the three months ending the 30th of June, 1868, have been selected from the returns furnished to the Registrar-General by the local registrars:—At Croydon there were 42 fatal cases of measles, constituting nearly 12 per cent. of the total deaths. At Stanford, in Faringdon, an outbreak of fever occurred in localities where there was a scarcity of water and bad drainage. At Trowbridge, in Melksham, fever, principally typhoid, caused 8 deaths out of 61; it had been very fatal here last quarter. In the village of Cholderton, Amesbury, scarlatina and secondary fever prevailed and destroyed the lives of 7 children out of a total of 18 deaths. At Torquay small-pox was very prevalent, and caused 6 deaths. At Totnes small-pox was also prevalent; 6 deaths were referred to this disease. At Plympton a great many cases of this loathsome disease occurred, but only one terminated fatally. At Ilchester there was an outbreak of typhus fever. Measles prevailed at Bristol and Clifton. Of 66 deaths in the town of Oswestry, 22 were referred to scarlatina. At Stourbridge no less than 34 deaths were caused by the same disease out of total of 126. Scarlatina was also very prevalent in Birmingham, and measles in Coventry. At Leicester there were 86 deaths from measles out of a total of 598. Measles was prevalent at Retford, Carlton, Nottingham, Stockport, and Derby. At Latchtord, Warrington, out of a total of 24 deaths, 7 were caused by diphtheria. At Spotland-nearer-Side, Rochdale, the deaths (82) exceeded the births (80); the excess was caused by scarlatina. At Preston, out of 684 deaths, 91 occurred from measles. At Yeadon, Wharfedale, there were 11 cases of small-pox among children aged from 14 weeks to 9 years. At Bradford 22 deaths from small-pox were registered. At North and South Sheffield, out of 554 deaths, there were 90 from measles and 29 from small-pox; the deaths from this latter disease occurred chiefly among the unvaccinated. At Brightside, Sheffield, measles and small-pox prevailed; vaccination had been much neglected. At Boston Spa, Bramham, there was an outbreak of typhoid fever, attributed to bad drainage. At Aldborough, Skirlaugh, there were 36 cases of typhus; only one, however, terminated fatally. At Sedgefield, Stockton, out of 110 deaths, 21 were caused by scarlatina, and at St. Oswald, Durham, it was the cause of 35 deaths out of 183. At Easington 74 fatal cases of scarlatina were registered out of a total of 252 deaths. At Sunderland and Tynemouth scarlatina prevailed; at Wallsend it was the cause of 34 deaths out of 78. At Whitehaven the 97 deaths registered during the quarter include 23 from measles. At Holywell scarlatina was fatally prevalent, and at Bangor measles was the cause of 21 deaths out of a total of 90.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY ....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

COPIES OF THE JOURNAL WANTED.—In consequence of the recent large increase in the number of members, several numbers of the BRITISH MEDICAL JOURNAL, which are urgently required, are out of print. Gentlemen having copies of the numbers for July 11 and 25, and August 1, 8, and 15, will receive full price for them, on forwarding them to Mr. Powle, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

MEDICAL DEGREES AND MEDICAL PROTECTION.

SIR,—For some time past letters have appeared in your JOURNAL, some advocating an easy mode of obtaining professional titles, while others condemn the ready way of acquiring them. All this appears to me very frivolous and vexatious. If your correspondents would write, agitate, and insist upon being better protected from beings who have no right to practise physic at all, either by qualification or knowledge of medicine, some good might be done to the profession. As the law now stands, any one may practise physic, attend midwifery or surgery, write death-certificates, and, in fact, do what any qualified medical practitioner is allowed to do, provided he do not style himself Doctor, Surgeon, or Apothecary, or have either of those titles on his door. He may, however, stick it in the window of his shop. Such is the case in every town in the kingdom. In the town where I live, druggists visit and send out medicine, and a few attend midwifery; and one man, a homœopathic druggist, does the best practice in the town. The best class of patients are visited by him; and, from what I know of his annual receipts, he is receiving considerably more than any practitioner in the town. This state of things is allowed to go on without any protection to the qualified practitioner. It is a shame that the profession is not better looked after and protected by the Examining Bodies who grant qualification to practise. I am, etc., M.D.

THE FRENCH SENATE.—Cabanis was the only medical man (says *L'Union Médicale*) who was appointed a Senator during the first Empire.

STATE MEDICINE.

SIR,—I cannot concur in Dr. Gairdner's opinion, announced in your JOURNAL of June 20th, on the disadvantage which he thinks would attend a separation of the class of medical practitioners from that of public medical officers in affairs of state. For the duties likely to devolve upon the latter, we should desire to see a representative organ of our profession calculated to raise the dignity of our art in public estimation, possessing a mind well trained in judicial investigations, expert in statistical calculations, skilful in minute chemical analysis, proficient with the use of microscope; a mind which has made sanitary and preventive medicine its speciality.

I dispute Dr. Gairdner's supposition, that the official and the practical class would habitually be pitted against each other; for experience proves that a public appointment detached from practice generally elevates men above personal jealousies and rivalry.

Taking for granted that the private practitioner may possess consummate prudence, wisdom, discretion, and philosophical impartiality, a medical officer of state would requre to dedicate all his time and thoughts to the efficient discharge of his public duties. He would be the consulting authority among his brethren wherever he might reside, upon whom they might confidently lean for assistance in any question of delicacy and difficulty of a public bearing, and for a certain prestige of authority, to which the public would be willing to defer in local questions of a medical character.

Dr. Rumsey has so well discussed the whole case in his recent paper read before the Association, that I ought to apologise for intruding on your space with these trite remarks; but the challenge of so great a practical physician as Dr. Gairdner ought not to remain unanswered. He feels a natural partiality for the position which he most worthily fills, and does not wish to change his career. In this public cause, however, he is obstructive to professional progress, and opposing the weight of his authority against, I am glad to say, growing popular ideas.

June 1868.

I am, etc., T. F. F.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

THE MAURITIUS FEVER IN ENGLAND.

SIR,—We have been able to hear so little of the nature of this fever, that I think it may interest the profession to know the appearances presented by it in this country.

The family under my observation arrived in Leicester about a month ago. They were living at Port Louis in January 1867, when the fever attacked them all. The first victim was the father of Mrs. B., aged 52. He had resided forty years in the island, was seized with rigors, became afterwards very feverish and raving, and died in forty-four hours from the first inroad. The next was the infant of Mrs. B., who had been just then confined. To complete the family history, I must mention that Mr. B. himself, aged 31, who had been living on the island fifteen years, had only one slight attack at the first outbreak, continued free the whole succeeding year, but had a severe attack on the voyage home, when off St. Helena; but has not suffered since, either by return of fever, or enlargement of glands. The whole family went, by medical advice, thirty miles from Port Louis, last year; but the periodical attacks recurred as badly as ever, and so they finally determined on coming to England for a year or more, to recover their health; and, sailing on January 26th of this year, arrived in the London Docks on April 24th.

Mr. A., brother of Mrs. B., aged 23, a native of Mauritius, of English parents, was first attacked eighteen months ago, at Port Louis. He had severe rigors; then strong fever; often sweating; delirium; supervention of fresh rigors irregularly every two or three days, with subsequent aggravation of fever; slight diarrhœa; no dysentery; no sickness, nor vomiting. He was in great danger, and kept his bed two months. When he began to get about, both liver and spleen began to swell. (I may mention that the whole family are very conversant with the situation of those two organs, and with the name of "ague-cake", so common in old medical writings, as applied to the enlarged spleen.) In the sixteen months since elapsed, he has had so many attacks, that he has lost count of them. They have come about once a fortnight, but with no regularity; and every now and then, five or six times altogether, has come a severe and dangerous attack, lasting two or three weeks. The ordinary mild attack comes with one day shivering, three or four of fever, and remission on the fifth or sixth day; and he can begin to crawl about on the seventh. He suffered from these all the voyage home; and since landing, on April 24th, has had three in as many weeks. The fourth, for which my assistance was requested, began on May 24th, on which day he had severe rigors, lasting twenty-four hours. He took fifteen grains of quinine in one dose that day with no effect; was very hot and ill on the 25th and 26th, with headache and fever; and on the morning of the 27th I first saw him. I found him a fine strong young fellow, dark complexioned, and appearing just as a severe fever-case does about the eighth or tenth day: face and head flushed and hot; eyes red and injected; severe headache; aching of limbs; and restlessness, almost amounting to slight delirium; skin dry, hot, and pungent; no spots of any kind anywhere; pulse 124, full and strong; tongue foul, dry, coated, yellow; great thirst and complete anorexia; bowels rather confined; urine scanty, high-coloured, and dark; the abdomen tense, considerably enlarged; the liver large, extending full three inches below the false ribs, even-edged, and not painful under pressure. In the left flank, the spleen was much enlarged, moveable, extending very low down. I prescribed for him hydrargyrum cum cretâ and magnesia, in such a dose as to act as an aperient; and three grains of quinine every four hours. His state appeared to me a very critical one, and especially because the family, so familiar with the appearances, regarded this attack as so dangerous. On the 28th, there was great relief from copious, bilious, thready stools. 29th. The bowel-discharge continued, and I encouraged it; abdomen still hard and tense; the liver still to be felt; the spleen going down, and hardly distinguishable; much thirst and fever, but slight inclination to perspire. May 30th. Much relieved, though still feverish, and head congested, and pulse quick. May 31st (eighth day from rigor). The fever was, so to speak, gone; and on June 1st I allowed him up. The spleen was quite gone down; the liver only just to be felt; the complexion assuming the sallow hue natural to it (as I am informed).

Mrs. B., aged 25, a native of Mauritius, was last confined eighteen months ago, immediately after which she was seized with the fever. She had along with it severe dysentery. The attacks continued coming about fortnightly; and every now and then she would have a severe attack—the last severe one when off St. Helena. She has had several slight ones at home; rigors, flushing and sweating stages all over in about three days. She is exceedingly pale and sallow—in good condition. She has a very marked splenic aspect. All the functions are well performed now; her only complaint is debility and slight menorrhagia. The abdomen is full, but no organ sensibly enlarged except the spleen; that can be tilted on the finger in the left flank. I prescribed sulphate of iron and quinine, under which she is rapidly improving so far.

Master B. No. 1, aged 7. The first attack kept him in bed three months and a half; he had first fever, and then dropsy. He had three or four mild attacks on the voyage; none at home. He is a pale and sallow-faced boy. His hair is hanging down into his abdomen. The spleen nearly rests on the crest of the ilium. No albumen in the urine.

Master B. No. 2, aged 5½, a jolly little pot-bellied fellow, of a dirty white and green colour. His attacks have not been so severe. There is general glandular enlargement in the abdomen; but neither liver nor spleen can be handled.

Master B. No. 3, aged 3½. This child is exceedingly pale, though not so severely touched by the fever as the others. He has, however, had three or four attacks at home. The abdomen is very large and tense, and there is much dulness on percussion all over the hepatic region; but the edge of the liver is not to be felt, on account of the tympanitis.

All three children were put on "rations" of quinine, under which they are rapidlg improving, and daily regaining their appearance, as well as the feeling and beariny of health.

The fever is evidently the tropical bilious remittent—the "perniciosa" of the Mediterranean—the yellow fever of the West Indies, etc. Indeed, the family speak of this as yellow fever. They describe the amount of illness and death as something appalling. They say there was no idea of any contagion, but that it was considered to be in the air, and especially fatal to those who had resided long in the island. This is an observation probably to be accounted for by the more remark that the death of an old resident occasions. As in all malarious fevers, the internal congestions are great and severe, and constitute the danger. I have seen spleens vary in size very quickly; but I never saw such rapid changes as in the case of Mr. A. In none of the cases have I found it at all necessary to use the monstrous modern doses of quinine.

I am, etc.. JOHN BARCLAY.

Leicester, July 1868.

Notice to Advertisers.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

Errata.—In Dr. Johnson's paper "On the Elimination of Morbid Poisons", in last week's Journal, in the last line of the first paragraph erase "corollaries"; and in the fifth line of the second paragraph, *for* "assimilated", *read* "*dis*assimilated".

Professional Arbitration.

Sir,—I beg leave to forward for your perusal the enclosed letter, which has been circulated amongst the members of the profession in this city. (It relates to the disagreement of Mr. Michael and Mr. Stowell.)

My object is to attract, through the medium of the Journal, the attention of the members of the British Medical Association to the want which exists of some professional court of appeal, wherein such differences should be adjusted, and whereby would be prevented the great scandal which arises to the profession, when professional disputes become the subject of public comment. If, as no doubt it is, our universal desire to elevate the status of our profession to what it ought to be, we must not afford the public opportunities of sneering at our breaches of "professional etiquette," or of comparing our quarrels, as they frequently and irreverently do, to those of "dogs fighting over a bone." It appears to me, that the widely-extended existence of our Association may afford means to prevent or adjust professional differences in a more private and proper manner, as becomes gentlemen and members of a learned profession. The following is a rough sketch of the plan which has occurred to my mind; and which, with great deference, I now place before your readers as somewhat applicable.

1. A high court of appeal or reference, to be composed of seven professional gentlemen, members or not of the British Medical Association. These members, composing the court, to be elected by ballot annually at the general meeting of the Association. The proceedings of this court to be carried on in London.

2. District courts of appeal or reference, to consist of seven members, elected by ballot at each annual meeting of the district branches of the Association.

3. All cases of dispute or difference on matters of medical ethics or points of professional etiquette, to be referred, *first* to the district court of appeal for decision, which must be that of a majority of not less than *three*.

4. The appellants to be in honour bound to abide by the decision thus arrived at, and to adopt whatever course the court may think right to recommend.

5. Should the district court of appeal fail in arriving at a decision on the case before them, or should the decision be obtained by a majority numerically less than that above mentioned, the case to be then laid before the high court of appeal in London; the decision of which, arrived at by the majority, shall be *final;* and the appellant shall be bound in honour to abide by that decision, and to adopt the course recommended by the court.

6. A section of the British Medical Association be formed, to be called the "Medico-Ethical Section," for the purpose of discussing subjects connected with medical ethics.

7. All members of the British Medical Association to consider themselves bound to observe the mode above mentioned of adjusting professional differences.

8. Any member of the profession, whether he be a member of the British Medical Association or not, who shall refuse to adopt this mode of arranging professional disputes, when called upon to do so, or who shall be found guilty of dishonourable or unprofessional conduct, or who shall refuse to adopt the course recommended by the court of appeal to which his case has been submitted, to be considered unworthy of the confidence of his professional brethren; unfitted to become or remain a member of the British Medical Association; no longer to be regarded as a worthy member of our profession, and to be treated accordingly.

The foregoing is but a very imperfect sketch of what might be adopted as a kind of framework, on which to place some more tangible construction; and I recognise attendant difficulties, none of which are insurmountable. Those friends with whom I have conversed on the subject, have been unanimous in the opinion, that some such method of adjusting our differences should exist. Surely there is not a district in England in which there are not to be found men of honour and integrity, "facti componere lites," to distrust whom would be an insult to the profession. In my humble opinion some such course of proceeding, as that above mentioned, will prove to the public that we have sufficient professional unanimity to settle our professional differences amongst ourselves, and also to show to them that there is a line of honour which no member of our profession can overstep, without drawing down upon him the disapprobation of his brethren. Should this communication produce some discussion in your columns which may possibly lead to practical results at our next annual meeting I shall be much gratified, and I trust that you will accept such a result as an apology for my prolixity. I am, etc.,

Bath, 1868. Pacificator.

P.S.—I enclose my card, and shall be happy to join other members of the Association in some movement towards carrying out the above-mentioned project.

The Army Medical Service.—By an error, the maximum age for admission into the Medical Service of the Army was last week stated to be 23 years. It should have been 28 years.

The King and Queen's College of Physicians.

Sir,—Your correspondent, "A Licentiate", whose letter appears in the Journal of August 8th, is, in my opinion, mistaken in supposing that "a large majority of the Licentiates are opposed" to the change recently made in the by-laws of the College. The reverse is, I believe, the fact. He is mistaken, too, as to the scope and intention of that change. Formerly, no person holding an Apothecaries' Licence could become a Licentiate of the College; but the College felt that it was absurd to endeavour to enforce that rule while the Colleges of Physicians of London and Edinburgh admit apothecaries to their Fellowship, and the Universities, without exception, to their highest degrees. The new rule removes this restriction; and, while permitting Licentiates of any Apothecaries' Company to hold its Licence, binds them "not to keep open shop for the sale of medicines"—a declaration not required from its Licentiates by any other Licensing Body; and as the College has at the same time increased the stringency of its examination, by subjecting all candidates (except physicians or surgeons of above five years' standing) to a written, in addition to a *viva voce* examination, it can hardly be charged with "competing in a spirit of traffic" with any other College.

I agree, however, with "A Licentiate", that, as an act of justice, all Licentiates who are in no way engaged in the practice of pharmacy, should be entitled to become "members". Such a grade does not at present exist in the College; but the College is, I believe, engaged in considering the propriety of instituting it; and will, I trust, soon carry the intention into effect. I am, etc.,

August 1868. Another Licentiate.

The Westminster Hospital.—Our remarks on the management of this institution were not at all intended to be applied to the medical school connected with it. The school has of late shown an amount of energy from which a very satisfactory result, with regard to its position as an educational institution, may be expected.

Lara.—A L.R.C.S.E. and L.R.C.P.E. is qualified, according to the Poor-law Board, to hold an union appointment.

The Public Medical Service.

Sir,—I trust the letter of "a Junior Assistant-Surgeon", which appeared in your Journal of the 18th instant, will induce you to modify your opinion of the public services as a fair field for young surgeons. The statistics quoted by him are gloomy enough; but a return of the number of promotions from the rank of assistant-surgeon to that of surgeon from the 1st day of January, 1857, to the 1st day of January, 1867, ordered, by the House of Commons, to be printed 5th April, 1867, gave an average promotion per annum of twenty-two only. To occupy an anomalous and inferior military position for life and departmentally a most subordinate one for more than two-thirds of one's service is enough to gall and humiliate the least sensitive. Nothing, however, seems too bad for an assistant-surgeon. Clause 85, Army Circulars, 1867, is worth perusal, and I can hardly think the worthy head of our department is aware that such a stigma has been cast upon any class of the medical department. I did not know before that promotion and morality had anything to do with each other, and, I think it should be shown why an assistant-surgeon, under all circumstances, is not as competent to furnish such a certificate as any other grade of military medical officers. For the benefit of those of your readers who may not have access to the Army Circulars, I will quote a part of the order alluded to:—

"Officers applying for permission to sell their commissions, will, if serving with their regiment, be required to produce a certificate from the medical officer in charge of the regiment, or if not so serving, from a military medical officer on full or half-pay, not under the rank of surgeon, etc."

Concessions have been made to the medical officers of the army every one must admit; but they have been conceded in the most illiberal manner, and many of the most pressing grievances are yet unredressed. A medical officer has quite as high a sense of discipline as any other man. Why, then, is it denied him in his proper sphere? Why is a governor, a superintendent-general of nurses, and a purveyor, required in our military hospitals? And all, mark you, superior to, and independent of, the principal medical officer. Inconsistently, however, the Regulations provide that, in the absence of the governor, his functions are to be performed by the principal medical officer. Why should not a medical officer always be supreme in a hospital? Why should his authority be divided at one time by a purveyor, at another by a woman, as at Netley and Woolwich, and the most obnoxious functionary in the British army? Make him as responsible as you please; but give him authority, and, above all, power to exercise it. Combatant officers are extremely jealous of their rank, and nothing would raise the "Doctor" so much in their estimation as the fact that he had power without a military title. As it is, relative rank carries with it neither position nor power, and corresponds with sham. Our army, constituted as it is, is productive of deep discontent among its medical officers, and our military authorities have themselves to blame for it. I concur with "One who has served thirty years", in thinking that the chief cause of discontent was the illegal and unjustifiable tampering with the Royal Warrant of 1858, compiled by the late Lord Herbert. Such an order as the one quoted does not conciliate even those with much less service than

A Decennial Assistant Surgeon.

Erratum.—In the Report on the Westminster Hospital (page 229 of last week's Journal), the expenditure at King's College Hospital should have been stated at £1,835, and not £2,684.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Chester Chronicle, August 22nd; The Brighton Examiner, August 25th; The Sheffield and Rotherham Independent, August 27th; The Wiltshire County Mirror, September 2nd.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. George Johnson, London; Dr. Tenison, London: Dr. R. Pringle, Porto Bello, N.B.; Mr. Trotter, London; Dr. Lankester, London; Mr. McClinton, London; Mr. A. Hall, Brighton; Dr. Macadam, Edinburgh; Mr. R. Biggs, Bath; Mr. E. Yardley, Ruabon; Dr. J. B. Pitt, Norwich; Dr. P. H. Watson, Edinburgh; Mr. R. L. Bowles, Folkestone; Mr. F. T. Coates, London; Oculis, London; Dr. Lilley, London; Mr. J. Sladden, Sandwich; Mr. D. McGregor Dr. Broadbent, London; Dr. W. Thornhill, Dublin; Messrs. Calvert, Bradford; Sir William Linton, Annan; Mr. Druce, Oxford.

LETTERS, etc. (with enclosures) from:—

Dr. Paget, Cambridge; Mr. J. Haines, Oxford; Mr. C. J. Bracey, Birmingham; The Military Secretary of the Indian Medical Service; Dr. Parkes, Netley; Mr, W. Rivington, London; Dr. T. Shapter, Exeter; Dr. Cheadle, London; Dr. A. W. Edis, London; Dr. Bristowe, London; Mr. T. Watkin Williams, Birmingham; Mr. Thomas Flower, Chester; Mr. F. Le Gros Clark, London; Dr. J. Sawyer, Birmingham; Mr. Coombs, Castle Carey; Dr. Fincham, London; Mr. James S. Blyth, London; Dr. F. O'Conor, London; Dr. Moore, London; Mr. W. H. Binns, Glenalmond; Mr. C. Parsons, Dover; Mr. Birkett, London; Mr. Leacroft, Feckenham; Mr. E. Lloyd, London; Mr. R. M. Jones, Rhyl; Dr. Treutler, Kew; Mr. St. George Mivart, London; Dr. John Murray, London; The Registrar-General of Ireland; The Registrar-General of England; Mr. T. M. Stone, London; The Secretary of Apothecaries' Hall; Mr. E. Franey, Banbury; Mr. J. K. Spender, Bath; Mr. C. Kelly, Leeds.

BOOKS, etc., RECEIVED.

On the Treatment of Aneurism. By George W. Balfour, M.D. London: 1868.
Bathing; its Uses and Advantages. By G. Worthington. London and Worthing: 1868.
Report on the Sanitary Condition of the Whitechapel District. By John Liddle, Medical Officer of Health. London: 1868.
An Improved Method of Extraction of Cataract. By J. R. Wolfe, M.D.
American Journal of the Medical Sciences. July.

EDUCATIONAL NUMBER.

INTRODUCTORY NOTES.

General Remarks. Preliminary Education. Double Examination for General Practice. Special Departments in Medical Schools. Instruction in Vaccination. Attendance on Lectures.

THE time has again arrived for publishing a number of this JOURNAL, specially containing such information as will be useful in guiding the student of medicine. In giving an abstract of the Regulations of the several Licensing Bodies in the three kingdoms, and of the arrangements of the Schools of Medicine, we have, as last year, endeavoured to combine conciseness with clearness; and, in compliance with a wish which has been expressed to us from several quarters, have now added tabular statements of the classes, lecturers, and days and hours of attendance in the medical schools of the kingdom.

The introductory lectures which will be given at the opening of the schools will doubtless contain much good and sound advice to the medical student, both on the manner in which he should pursue his studies, and on the moral and intellectual aspects of the profession which he has decided on entering. We, therefore, do not think it necessary to say anything on these subjects; feeling assured that they will be ably treated elsewhere. But there are a few points to which we may briefly call attention.

A certificate of having passed a Preliminary Examination in subjects of General Education is demanded from all students; and by most of the Boards (including all those in England) the examination is required to have been passed before the commencement of professional study. No change has been made by the Medical Council in the subjects of which a knowledge is required; but the resolution to make Greek compulsory after 1869 has been withdrawn. Of the Examining Boards, most do not confine themselves to the minimum laid down by the Council; and some of them, whose standard of examination in certain subjects has been decided by the Council to be too low, have this year issued more strict and comprehensive regulations. The general education of youth intended for the medical profession is a matter the importance of which seems to be not yet sufficiently understood by the public. The amount of knowledge required is not greater than ought to be possessed by any one about to enter a profession which demands sound mental training; and yet, on referring to the latest reports on the preliminary examinations in Scotland and Ireland (no visitors' reports on examinations in England having been furnished last year) we find in some instances that but a small proportion of the candidates passed, and that the rejections were on account of deficiency in some of the most elementary branches of general knowledge. At the same time, there can be no doubt that the proceedings of the General Council and of the Licensing Bodies in regard to preliminary general education have already done a large amount of good; and we may hope for still more satisfactory results in the course of time.

The Regulations of the Examining Bodies have undergone little change since last year; with an exception, however, of great importance. In our last Educational Number, we stated that the Royal College of Physicians of London had made provision for the possession on the part of all candidates for its license of a knowledge of surgery, and that the Royal College of Surgeons of England was making arrangements for the qualification in medicine of candidates for its diploma of membership. The arrangements have been now completed; and the following important regulation has been issued by the Royal College of Surgeons.

"*On and after the* 1*st of October*, 1868, *all candidates presenting themselves for the final examination for the diploma of Member of the College will be required to pass an examination in Medicine at the College, or to produce a recognised degree, diploma, or license in Medicine, before receiving the diploma.*"

We congratulate the profession in this country on the adoption by the Licensing Boards of the regulations to which we have referred. They will put a stop to the introduction into the profession of persons holding the licence or diploma of one Board only, and who must, therefore, be regarded as only semi-qualified. In Scotland, the system of combined examinations has been followed for several years. It has not yet been adopted in Ireland; but we shall hope to hear of the Dublin Colleges having decided on a plan of combined action analogous to that which is now in force in London.

The plan of dividing the Professional Examination into two or more parts has been found satisfactory, and has been continued; while the practical parts of the examinations are being made more complete.

In the Medical Schools, we notice a general tendency to meet the increased and judicious demand for practical instruction. In several instances, means have been adopted for giving instruction in certain special departments of practice; so as to secure to the students that information regarding these which could not be so easily or well afforded in the general department, and at the same time to obviate the necessity of having recourse to separate special institutions.

Evidence of having received instruction in Vaccination is now required by several of the Licensing Boards; and the Privy Council demand a certificate of proficiency in vaccination from all public vaccinators who have been admitted to practise since January 1st, 1860. To meet this requirement, the Medical Schools have made special provision for instruction in Vaccination, generally by arrangement with one of the instructors in vaccination recognised by the Privy Council.

No important change has lately taken place with regard to the demand, on the part of Examining Boards, of attendance on lectures. The merits and demerits of this system have, however, been freely discussed, both in the Medical Council and outside of that body; and it is not at all improbable that, in a few years, although compulsory attendance on lectures may not be (as some would desire) altogether abolished, it may be placed in a more subordinate position than it holds at present with regard to practical instruction. In referring to this subject, it would not be just to overlook the endeavours which the Medical Teachers' Association is making to improve medical education, nor the beneficial effects which are likely to result from the action of that body—composed as it is of gentlemen daily engaged in teaching, and therefore specially capable of estimating the failures and evils, as well as the successes and the benefits, of our present plan of education.

With these brief remarks, we place before the student a summary of that which is expected of him by the Examining Boards, and the means placed at his disposal for obtaining a knowledge of his professon. Having done this, we will leave him to his own guidance and to that of his advisers, as to the choice of a medical school. This only we will say: that, to whichsoever of our medical educating bodies he may attach himself, he will find his studies directed by men who are determined to do their duty in rendering him fit for the exercise of his profession; but that very much also depends on the use which he makes of his opportunities. The largest hospital and the most renowned staff of teachers can hardly make a good practitioner out of an idle student; while he who is determined to acquire knowledge will never fail to find opportunities at hand, and to make good use of them.

REGULATIONS
OF
THE GENERAL MEDICAL COUNCIL AND MEDICAL LICENSING BODIES.

SESSION 1868-69.[*]

GENERAL MEDICAL COUNCIL.

Recommendations on Preliminary Examination.

THAT Testimonials of Proficiency granted by the National Educational Bodies, according to the subjoined list, may be accepted, the Council reserving the right to add to, or take from, the list. 1. A Degree in Arts of any University of the United Kingdom or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council. 2. Oxford Responsions or Moderations. 3. Cambridge Previous Examinations. 4. Matriculation Examination of the University of London. 5, 6, 7. Oxford, Cambridge, or Durham Middle Class Examinations (Senior). 8. Durham Examinations for Students in Arts in their Second and First Years. 9. Durham, Registration Examination for Medical Students. 10. Dublin University, Entrance Examination. 11. Queen's University, Ireland, two years' Arts Course for the Diploma of Licentiate in Arts. 12. Queen's University Preliminary Examinations at the end of A.B. Course. 13. Queen's University Middle Class Examinations. 14. Queen's University Matriculation Examinations. 15. First Class Certificate of the College of Preceptors. 16. "Testamur" granted by Codrington College, Barbadoes. 17. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a certificate that the student has been examined in Latin and Mathematics. 18. Matriculation Examination of McGill University, Montreal.[†] That it be recommended to the Licensing Boards not to accept the Certificate of proficiency in General (preliminary) Education from any of the Bodies, the names of which are contained in the list annually circulated, unless such Certificate testify that the Student to whom it has been granted has been examined in—1. English Language, including Grammar and Composition.[‡] 2. Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin, including Translation and Grammar. 5. One of the following *Optional Subjects*:—1. Greek. 2. French. 3. German. 4. Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. The Students who cannot produce any of the Testimonials referred to in the first Recommendation be required to pass an Examination in Arts, established by any of the Bodies named in Schedule (A) to the Medical Act, and approved by the General Medical Council.—That Certificates of Proficiency, to be received from all Bodies legally authorised to examine in General Education in Great Britain and Ireland, and from the several Licensing Bodies enumerated in Schedule (A) to the Medical Act in Great Britain and Ireland, shall bear evidence that the Candidates have been examined and approved in at least the above subjects.—That, in the case of Certificates received from similar Educational and Licensing Bodies in other parts of the Empire and Foreign Countries, satisfactory evidence shall be given to the Medical Council, or Branch Councils, that such Certificates are equivalent to those recognised in the United Kingdom.

Registration of Medical Students.

Every Medical Student shall be registered in the manner prescribed by the General Medical Council: but not until he has passed a Preliminary Examination, as required by the General Medical Council.—The commencement of the course of Professional Study recognised by any of the Qualifying Bodies, shall not be reckoned as dating earlier than fifteen days before the date of Registration. The Registration of Medical Students shall be placed under the charge of the Branch Registrars; each of whom shall keep a Register of Medical Students in a form containing the Date of Registration, Name, Preliminary Examination and Date thereof, and Place of Medical Study.—Every person desirous of being registered as a Medical Student, shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to the annexed form,[*] which may be had on application to the several Qualifying Bodies, Medical Schools, and Hospitals; and shall produce or forward to the Branch Registrar a Certificate of his having passed a Preliminary Examination, as required by the General Medical Council, and a statement of his place of Medical Study.—The Branch Registrar shall enter the Applicant's name and other particulars in the Students' Register, and shall give him a Certificate of such Registration.—Each of the Branch Registrars shall supply to the several Qualifying Bodies, Medical Schools, and Hospitals, in that part of the United Kingdom of which he is Registrar, a sufficient number of blank Forms of Application for the Registration of Medical Students.—The several Branch Councils shall have power to admit special exceptions to the foregoing Regulations as to Registration, for reasons which shall appear to them satisfactory.—A copy of the Registrar of Medical Students, prepared by each of the Branch Registrars, shall be transmitted, on or before the 31st December in each year, to the Registrar of the General Council; who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an Alphabetical List of all Students registered in the preceding year, and supply copies of such authorised List to each of the Bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to the several Medical Schools and Hospitals.—The several Qualifying Bodies are recommended not to admit, after October, 1870, to the final Examination for a Qualification under the Medical Acts, any Candidate (not exempted from Registration) whose name had not been entered in the Medical Students' Register at least four years previously.—In the case of Candidates from other than Schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this Recommendation.

Age for Licence to Practise.

That the age of twenty-one be the earliest age at which a Candidate for any Professional Licence shall be admitted to his final Examination; that the age shall, in all instances, be duly certified; and that a Return of any exceptions to this Recommendation allowed by the Licensing Bodies, together with the reasons for such exceptions, be transmitted to the Branch Council of that part of the United Kingdom in which they have been granted.—That no Licence be obtained at an earlier period than after the expiration of forty-eight months subsequent to the Registration of the Candidate as a Medical Student.

Professional Education.

That the course of Professional Study required for a Licence shall comprehend attendance during not less than Four Winter Sessions, or Three Winter and Two Summer Sessions, at a School recognised by any of the Licensing Bodies mentioned in Schedule (A) to the Medical Act.—That it be recommended to the several Licensing Bodies that the courses of instruction required by them be framed in such a manner as to secure a due share of attention, both to Preparatory Branches and to those more strictly connected with the Practice of Medicine and Surgery; and that it be suggested accordingly to these Bodies, that their Regulations should be such as to prevent attendance upon Lectures from interfering with Hospital and Clinical Study.—That the Council will view with approbation any encouragement held out by the Licensing Bodies to Students to prosecute the study of the Natural Sciences before they engage in studies of a strictly Professional character.

Professional Examination.

That the Professional Examination for any Licence be divided into two parts; the first embracing the primary or fundamental branches directly connected with the Practice of Medicine and Surgery. That the former be not undergone till after the close of the Winter Session of the

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[*] To save space, we omit those portions of the Recommendations of the General Medical Council and of the Regulations of the Examining Bodies, which are not of direct importance to medical students.

[†] Certificates of Examination by the Bodies contained in the list subjoined, have been accepted as sufficient testimonials of proficiency by some of the Licensing Bodies, and allowed by the Branch Councils to which they were referred. 1. University of Paris—Examination for Diploma of Bachelor of Sciences. 2. University of Toronto—Matriculation Examination. 3. University of King's College, Nova Scotia—Matriculation Examination. 4. Royal Military College, Sandhurst—Entrance Examination; Examination for Direct Commission. 5. Incorpated Law Society. 6. St. Mark's College—Examination required by the Committee of the Privy Council.

[‡] The General Medical Council will not consider any examination in English sufficient that does not fully test the ability of the candidate—1. To write a few sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition. 2. To write a portion of an English author to dictation. 3. To explain the grammatical construction of one or two sentences. 4. To point out the grammatical errors in a sentence ungrammatically composed, and to explain their nature. 5. To give the derivation and definition of a few English words in common use. Provided always that an examination may be accepted as satisfactory that secures, on the part of the candidate passing it, a sufficient grammatical knowledge of English.

[*] *Form of Application for Registration as a Medical Student.*—I hereby apply to be registered as a Student in Medicine, in conformity with the Regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars. [Name of applicant (to be written in words at length); Surname; Christian name; Preliminary examination; Date of preliminary examination; Place of medical study; Applicant's signature; Address; and Date of application.]

N.B.—The above Form of Application, duly and legibly filled up, must be forwarded to the Registrar, post free, and be accompanied by a Certificate of the applicant's having passed a Preliminary Examination, as required by the General Medical Council; and a statement of his place of medical study.

Second Year of Professional Study; and the latter or final Examination, not till after the close of the prescribed period of Professional Study.—That the Examination in Physics, Botany, and Natural History may be undergone at an earlier period than the first Professional Examination.—That the Professional Examinations be conducted both in writing and orally; and that they be practical in all branches in which they admit of being so.—That the Professional Examinations be held by the several Licensing Bodies, except in special cases, at stated periods, to be publicly notified.—That Returns from the Licensing Bodies in Schedule (A) be made annually, on the first of January, to the General Medical Council, stating the Number and Names of the Candidates who have passed their First as well as their Second and Third Examinations, and the Number of those who have been rejected at the First, Second, and Third Examinations respectively.

The following Resolution was passed by the General Medical Council, on July 6th, 1868.—The General Medical Council are of opinion—That it is desirable that the different Licensing Bodies should combine their Examinations, when this is practicable, so as to secure that the knowledge of every Practitioner whose name appears on the Register shall have been tested in all the subjects of Professional Education which the Council has determined to be essential, viz.:—1. Anatomy. 2. General Anatomy. 3. Physiology. 4. Chemistry. 5. Materia Medica. 6. Practical Pharmacy. 7. Medicine. 8. Surgery. 9. Midwifery. 10. Forensic Medicine.—*As to the Method of conducting the Examinations:*—1. That they should be both oral and in writing.—2. That not less than two Examiners, or one Examiner with an Assessor, should be present at every Oral Examination.—3. That the Oral Examinations should be so far public as to be open at least to the Medical and Surgical Graduates, or Members of the Examining Body.—4. That the questions to be answered in writing should be so numerous, and embrace such a variety of the details of each subject, as may adequately test the proficiency of the Candidate; and that they should be submitted to the whole body of Examiners for consideration and revision, if desirable, before being proposed to the Canditates.—5. That the written answers should be submitted to more than one of the Examiners.—6. That excellence in one or more subjects should not be allowed to compensate for failure in others.—7. That, if a Candidate be rejected for failure in any one subject he should be re-examined in all.—That Examiners should only be elected for definite periods, with power of re-appointment.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

BYE-LAWS RELATING TO MEMBERS.

I. The Members of the College, present and future, shall be alone eligible to the Fellowship. They shall have the use of the Library and Museum, subject to the Regulations relating thereto, and shall be admitted to all Lectures, and shall enjoy such further privileges as may from time to time be defined by the Bye-Laws; but they shall not be entitled to any share in the government, or to attend or vote at general meetings, of the Corporation. II. All persons who have been admitted before February 16th, 1859, Licentiates of the College, shall be entitled to be admitted Members of the College, provided that they have, since their admission as Licentiates, obeyed the Bye-Laws, and do accept such Membership, and engage henceforth to obey the Bye-Laws of the College. III. Any Extra-Licentiate who shall have produced testimonials as to character satisfactory to the Censors, and shall have assured the said Censors that he is not engaged in the practice of Pharmacy, and who shall comply with such other regulations as are required by the Bye-Laws of the said Corporation, may be proposed to the College to be admitted a Member of the College. IV. Any person who shall have satisfied the College touching his acquirements in general Science and Literature, and his knowledge of Medicine, Surgery, and Midwifery, and who shall comply with the Bye-Laws and Regulations of the College, may be proposed to the College to be admitted a Member of the College. V. Every Candidate for the Membership of the College, under the last Bye-Law, who shall have commenced his Professional Studies after September 1861, shall satisfy the Censors' Board that previously to the commencement of his Professional Studies he has obtained a Degree in Arts from some University of the United Kingdom or of the Colonies, or from some other University specially recognised by the Medical Council, or that he has passed Examinations equivalent to those required for a Degree in Arts. All other Candidates for Membership shall be examined on the subjects of General Education by the President and Censors of the College. VI. Every Candidate for Membership shall furnish proof that he has attained the age of twenty-five years. VII. Every Candidate shall produce a Testimonial from a Fellow or Member of the College, satisfactory to the Censors' Board, to the effect that, as regards moral character and conduct, he is a fit and proper person to be admitted a Member of the College. VIII. Every Candidate (*except such as shall be admissible under the provisions of Section* XV *and* XVI) shall produce proof of his having been engaged in Professional Studies during a period of five years, of which four years at least shall have been passed at a Medical School or Schools, recognised by the College. IX. Every Candidate (*except such as shall be admissible under the provisions of Sections* XV *and* XVI) shall produce evidence, satisfactory to the Censors' Board, of having studied the following subjects. [The subjects are the same as those required for the Licence, but Clinical Medicine must be attended during three *Winter Sessions and three Summer Sessions.*] He must also give evidence of having attended diligently during three Winter Sessions and three Summer Sessions the Medical Practice, *and during three Winter Sessions and two Summer Sessions the Surgical Practice*, of an Hospital containing at least 100 beds; of having been engaged during six months in the Clinical Study of Diseases peculiar to Women; and of having served the office of Clinical Clerk in the Medical Wards during at least six months. X. Every Candidate who has prosecuted his studies abroad, whether in part or to the full extent required by the preceding Bye-Law (*except such as shall be admissible under the provisions of Section* XVI), shall, nevertheless, bring proof of his having attended during at least twelve months, the Medical Practice of an Hospital in the United Kingdom containing at least 100 beds. XI. If the Censors' Board doubt the sufficiency of the Certificates and Testimonials produced by any Candidate, or his fitness, in any respect, for admission to Examination, they may submit the case to a General Meeting of the Fellows. XII. No Candidate shall be admitted to Examination who is engaged in trade; or who dispenses medicine, or makes any engagement with a Chemist, or any other person, for the supply of medicines; or who practises Medicine or Surgery in partnership, by deed or otherwise, so long as that partnership continues. XIII. No Candidate shall be admitted to Examination who refuses to make known, when required by the President and Censors, the nature and composition of any remedy he uses. XIV. Every Candidate (except in cases specially exempted under Sections XV and XVI), shall give proof of his acquirements by written answers to questions placed before him, and shall be examined *vivâ voce* at three separate Examinations, and shall be approved by the President and Censors, or by the major part of them. XV. Any Candidate who has already obtained the Degree of Doctor or Bachelor of Medicine at an University in the United Kingdom, wherein the Courses of Study, and the Examinations to be undergone by the Students previously to graduation, shall have been adjudged by the Censors' Board to be entirely satisfactory, shall be exempt (if the Censors shall think fit) from all or any parts of the Examinations hereinbefore described, except such as relate to the Third or Pass Examination; the nature and extent of which Examination shall, in the case of each Candidate, be determined by the Censors' Board. Every Candidate for the Membership will, however, be required to translate into English a passage from a Latin author, and he will have the opportunity of showing a knowledge of Greek, or of one or more of the modern European languages. XVI. If any Candidate who has attained the age of forty years shall produce Testimonials not merely satisfactory as to his moral character and conduct, and his general and professional acquirements, but further showing that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a Medical Practitioner; the Censors' Board, having well weighed and considered these Testimonials, may, if they see fit, submit them to the Fellows at a General Meeting, and it shall be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the Candidate shall be admitted to Examination, which shall, in every such case, be as full and complete as the Censors may deem sufficient. XVII. Any Candidates who shall produce satisfactory evidence of having passed an Examination on Anatomy and Physiology, conducted by any of the Bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a Course of Study and an Examination satisfactory to the College, will be exempt from re-examination on the subjects of the Primary Examination. XVIII. Any Candidate who shall have obtained a Degree in Surgery, at a University in the United Kingdom, after a Course of Study and an Examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy, and the Principles and Practice of Surgery. XIX. Any Candidate who shall have passed the Examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a Course of Study and an Examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery. XX. Every Candidate approved by the Censors' Board shall be proposed, at the next General Meeting of Fellows, as qualified to become a Member of the College; and if the majority of the Fellows present shall consent, he shall, on complying with the Regulations prescribed by the Bye-Laws, be admitted a Member of the College. The Fee to be paid for admission as a Member of the College shall be Thirty Guineas.

BYE-LAWS RELATING TO LICENTIATES.

Every Candidate for the College Licence (except when otherwise provided by the Bye-Laws) is required to produce satisfactory evidence to the following effect.

I.—Of having attained the age of twenty-one years.

II.—Of moral character.

III.—Of having passed, before the commencement of Professional Study, an Examination in the subjects of General Education recognised by the College.

IV.—Of having been registered as a Medical Student in the manner prescribed by the General Medical Council.

V.—Of having been engaged in Professional Studies during four years, of which at least three Winter Sessions and two Summer Sessions shall have been passed at a recognised Medical School or Schools, and one Winter Session and two Summer Sessions in one or other of the following ways: 1. Attending the Practice of a Hospital or other Institution recognised by the College for that purpose. 2. Receiving instruction as the Pupil of a legally qualified Practitioner, holding any Public Appointment which affords opportunities, satisfactory to the Examiners, of imparting a practical knowledge of Medicine, Surgery, or Midwifery. 3. Attending Lectures on any of the required subjects of Professional Study at a recognised place of instruction.[*]

VI.—*Of having attended, during three Winter Sessions and two Summer Sessions, the Medical and Surgical Practice at a recognised Hospital or Hospitals,*[†] and of having been engaged during six months in the Clinical Study of Diseases peculiar to Women.

VII.—Of having studied the following subjects: Anatomy (with Dissections), Two Winter Sections;[‡] Physiology, Two Winter Sessions; Chemistry, Six Months; Practical Chemistry, Three Months; Materia Medica, Three Months; Practical Pharmacy, Three Months.[§] Botany, Three Months.[||] Morbid Anatomy, Six Months.[¶] Principles and Practice of Medicine, Two Winter Sessions.[**] Principles and Practice of Surgery, *Two Winter Sessions.*[††] Clinical Medicine, and Clinical Surgery, *each Two Winter Sessions and Two Summer Sessions.*[‡‡] Midwifery and Diseases Peculiar to Women, Three Months.[§§] Forensic Medicine, Three Months.

VIII.—Of having passed the Professional Examinations.

Examination for the Licence.

Every Candidate for the College Licence, before he is admitted to Examination, will be required to sign a Declaration, stating whether he has or has not been rejected within Three Months by any of the Examining Boards included in Schedule (A) to the Medical Act.

The First Examination, on Anatomy and Physiology, will be conducted on successive days, as follows: First day—*Evening*, from 7 to 10, by written questions. Second day—*Evening*, commencing at 7 o'clock, *vivâ voce* on Dissections and Preparations.

The Second or Pass Examination will be conducted on successive days, as follows: First day, *Evening*, from 7 to 10, by written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. Second day—*Morning*—The Candidate's practical knowledge will be tested, either at the College or in the Surgical Wards of an Hospital. *Afternoon*, from 1 to 4, *on Materia Medica*, and on *Chemistry in its applications to Pathology, Pharmacy, and Toxicology.*[*] (*This Examination will be conducted partly by written questions and partly in a practical manner.*) *Evening*, commencing at 7 o'clock, by written questions on Midwifery and the Diseases Peculiar to Women. Third day—*Evening*, from 7 to 10, by written questions on Medical Anatomy, and on the Principles and Practice of Medicine, including the Principles of Public Health. Fourth day—*Morning*—The Candidate's practical knowledge will be tested, either at the College or in the Medical Wards of an Hospital. *Evening*, commencing at 7 o'clock, *vivâ voce*, on the Principles and Practice of Medicine, Surgery, and Midwifery.

Candidates will not be admitted to the First Examination until after the termination of the second Winter Session of Professional Study at a recognised Medical School, nor to the Second or Pass Examination until after the termination of four years of Professional Study.—After October 1870, the College will not admit to the Pass Examination any Candidate (not exempted from Registration) whose name had not been entered in the Medical Students' Register at least four years previously.

Any Candidate who shall be rejected at the First Examination, will not be re-admitted to Examination until after the lapse of Three Months, and will be required to produce a Certificate of the performance of Dissections, or other Professional Study satisfactory to the Examiners, during that time. Any Candidate who shall be rejected at the Second or Pass Examination, will not be re-admitted to Examination until after the lapse of Six Months, and will be required to produce a certificate of attendance on the Practice of a recognised Hospital during that time, and also of attendance on Clinical Lectures.

Every Candidate intending to present himself for Examination, is required to give fourteen days' notice in writing to the Registrar of the College, at the same time transmitting the following certificates. *For the First Examination.*—Evidence of having passed an Arts Examination; of having been duly registered as a Medical Student; and of having completed the second Winter Session of Professional Study at a recognised Medical School. *For the Second or Pass Examination.*—Evidence of having completed four years of Professional Study; of having attained the age of twenty-one years; of Instruction and Proficiency in the Practice of Vaccination; and of having attended not less than twenty Labours. A testimonial of Moral Character is required of every Candidate. Blank forms of the required certificates of attendance on Hospital Practice and on Lectures may be obtained on application at the College.

Any Candidate who shall produce satisfactory evidence of having passed an Examination on Anatomy and Physiology, conducted by any of the bodies named in Schedule A to the Medical Act, and recognised by the College as requiring a course of study and an examination satisfactory to the College, will be exempt from re-examination on the subjects of the First Examination.—Any Candidate who shall have obtained a Degree in Medicine at an University recognised by the College, after a course of Study and Examination satisfactory to the College, shall be exempt from re-examination on the subjects of the Primary Examination.—The exemption in Clauses xvii, xviii, and xix of the Regulations regarding the Membership, are applicable also to Candidates for the Licence.—Any Registered Medical Practitioner, whose Qualification or Qualifications shall have been obtained before the first day of January, 1861, having been, with the consent of the College, admitted a Candidate for the Licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the Professional Examinations as his Qualifications may seem to the Examiners to render in his case unnecessary.[†]

The Fee for the College Licence is Fifteen Guineas, of which Five Guineas are to be paid on admission to the First Examination, which Fee will not be returned to any Candidate rejected at this Examination, but will be allowed in the Fee for the Licence; and he will be admitted to one subsequent First Examination without the payment of an additional Fee.[‡] Any Candidate who shall be rejected at the Second or Pass Examination will have the Fee, paid on admission to this Examination, returned to him, less Three Guineas.

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

Examinations of Candidates for the College Licence will take place as follows: *First Examination*, commencing October 6th and December 1st, 1868, February 2nd, April 6th, July 6th, October 5th, and December 7th, 1869. *Second or Pass Examination*, commencing October 13th, December 8th, 1868, February 9th, April 13th, July 13th, October 12th, and December 14th, 1869.

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[*] Professional Studies commenced *before* the candidate shall have passed an examination in the subject of General Education, will not be recognised by the College.

[†] The requirements printed in italics apply to candidates who commence their Professional Education in the United Kingdom on or after October 1st, 1867; and to candidates who commence their Professional Education at a recognised Foreign or Colonial School on or after October 1st, 1868.

[‡] The Winter Session comprises a period of six months, and the Summer Session a period of three months.

[§] By Practical Pharmacy is meant instruction in the Laboratory of a Registered Medical Practitioner, or of a Member of the Pharmaceutical Society of Great Britain, or of a Public Hospital or Dispensary recognised by the College.

[||] This Course of Lectures may be attended prior to the commencement of Professional Studies; and any candidate producing satisfactory evidence that Botany formed one of the subjects of his Preliminary Examination, will be exempt from attendance on this course.

[¶] This includes attendance and instruction in the *Post Mortem* Room during the period of Clinical Study.

[**] It is required that the Principles of Public Health should be comprised in this Course of Lectures, or in the Course of Lectures on Forensic Medicine.

[††] The attendance on the Lectures on Medicine and Surgery must not commence earlier than the second Winter Session at a recognised Medical School.

[‡‡] The attendance on the Lectures on Clinical Medicine and Clinical Surgery must not commence until after the first Winter Session at a recognised Medical School. By Clinical Medicine and Clinical Surgery are meant special Study and Instruction at the bedside, with Lectures on Cases.

[§§] Certificates must also be produced of attendance on not less than twenty Labours, and of Instruction and Proficiency in Vaccination.

[*] Candidates who shall have passed the first examination for the Licence at this College before October 1st, 1867, are exempted from re-examination on Materia Medica, and on Chemistry in its application to Pharmacy.

[†] Forms of Application may be obtained of the Registrar of the College.

[‡] The Fee must be paid within three days prior to the day on which the Examination commences.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REGULATIONS RESPECTING THE DIPLOMA OF MEMBER.

Section I.—*Preliminary General Education and Examination.*

CANDIDATES who commenced their Professional Education on or after the 1st of January, 1861, will be required to produce one or other of the following certificates:—1. Of Graduation in Arts at an University recognised for this purpose; viz., Oxford; Cambridge; Dublin; London; Durham; Queen's University in Ireland; Edinburgh; Glasgow; Aberdeen; St. Andrew's; Calcutta; Madras; Bombay; McGill College, Montreal; and Queen's College, Kingston, Canada. 2. Of having passed an Examination for Matriculation, or such other Examination as shall, in either case, from time to time be sanctioned by the Council of this College, at an University in the United Kingdom, or at a Colonial or Foreign University recognised by the Council of this College. The following are the Examinations at present recognised under this Clause; viz.: Oxford—Responsions or Moderations; Middle-Class Examinations, Senior, the certificates to include Latin. Cambridge—Previous Examination; Middle-Class Examinations, Senior, the certificates to include Latin. Dublin—Entrance Examination. London—Matriculation Examination. Durham—Examination of Students in Arts in their second and first years; Middle-Class Examinations, Senior, the certificates to include Latin; Registration Examination for Medical Students. Queen's University in Ireland—Two years' Arts Course for Diploma of Licentiate in Arts; Preliminary Examinations at end of B.A. Course; Middle-Class Examinations, the certificates to include Latin; Matriculation Examinations. Edinburgh; Aberdeen; Glasgow; and St. Andrew's—Preliminary or Extra-Professional Examinations for Graduation in Medicine. Calcutta; Madras; and Bombay—Matriculation Examinations. McGill College, Montreal—Matriculation Examination. Queen's College, Kingston, Canada—Matriculation Examination; Preliminary Examination of Students in Medicine. University College, Toronto; and Victoria College, Toronto—Matriculation Examination. University of Melbourne—Matriculation Examination, with a certificate that the student has passed an examination in Latin. 3. Of having passed the Preliminary Examination for the Fellowship of this College; 4, that of the Royal College of Surgeons in Ireland; 5, that of the Royal College of Surgeons of Edinburgh; or 6, that of the Faculty of Physicians and Surgeons of Glasgow. 7. Of having passed the Examination in Arts of the Society of Apothecaries of London; or 8, that of the Apothecaries' Hall of Ireland. 9. Of having passed the First-Class Examination of the Royal College of Preceptors. 10. Testamur of the Codrington College, Barbadoes. 11. Degree of Associate of Arts granted by the Tasmanian Council of Education, with a certificate that the student has been examined in Latin and Mathematics. 12. Candidates who shall not be able to produce one or other of the foregoing certificates will be required to pass an Examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of this College.*

Section II.—*Professional Education.*

I. Professional Studies prior to the date at which the candidate shall have passed an Examination in General Knowledge, in conformity with the Regulation in the preceding Section, are not recognised.†

II. The following will be considered as the commencement of Professional Education:—1. Attendance on the Practice of a Hospital, or other Public Institution recognised by this College for that purpose. 2. Instruction as the Pupil of a legally qualified Surgeon, *holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council.** 3. Attendance on Lectures on Anatomy, Physiology, or Chemistry, by Lectures recognised by this College. *The commencement of professional study otherwise than by attendance on Lectures in recognised Medical Schools, or by attendance on the Practice of recognised Hospitals, will not be admitted until a certificate thereof shall be furnished to the Secretary for registration at the College, by the practitioner whose pupil the candidate shall have become, or by the Medical Superintendent of the Hospital or other Institution to the practice of which he shall have entered, and will, consequently, date only from the reception of such certificate by the Secretary; the certificate to be accompanied by proof of having passed the necessary Preliminary Examination in General Knowledge.*

III. Candidates will be required to produce the following other certificates, viz.:—1. Of being twenty-one years of age. 2. Of having been engaged during four years in the acquirement of professional knowledge. 3. Of having studied Practical Pharmacy during three months. 4. Of having attended lectures on Anatomy, delivered not less frequently than four times in each week, during two Winter Sessions. 5. Of having performed Dissections during not less than two Winter Sessions. 6. Of having attended lectures on Physiology, delivered not less frequently than twice in each week, during two Winter Sessions. 7. Of having attended lectures on Surgery during two Winter Sessions, *of which one course must not be earlier than the Third Winter Session at a recognised Medical School.* 8. Of having attended one course of lectures on each of the following subjects; viz., Chemistry, Materia Medica, Medicine, and Midwifery. 9. Of instruction and proficiency in the practice of Vaccination. 10. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom or Colonies, the Practice of Surgery during three Winter and two Summer Sessions; and of having, subsequently to the first Winter Session of the foregoing attendance, attended, at a recognised Hospital or Hospitals, Clinical Lectures on Surgery, during two Winter and two Summer Sessions. 11. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom or Colonies, the Practice of Medicine, and Clinical Lectures on Medicine, during one Winter and one Summer Session. 12. *Of having, subsequently to the completion of two years' professional education, taken charge of patients under the superintendence of a Surgeon during not less than six months at a Hospital, General Dispensary, or Parochial or Union Infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery.*

N.B. Blank forms of the required certificates may be obtained on application to the Secratary, and all necessary certificates will be retained at the College.

Section III.—*Concerning Certificates, etc.*

1. Certificates will not be received on more than one branch of science from one and the same lecturer; but Anatomy and Dissections will be considered as one branch of science. 2. Certificates will not be recognised from any Hospital in the United Kingdom, unless the surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy and Physiology or Midwifery, unless the teachers be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any School of Surgery, unless the teachers be members of one of the legally constituted Colleges of Surgeons in the United Kingdom. 3. No Metropolitan Hospital will be recognised by this College which contains less than 150, and no Provincial or Colonial Hospital which contains less than 100 patients. 4. The recognition of Colonial Hospitals and Schools is governed by the same regulations, with respect to number of patients and to courses of lectures, as apply to the recognition of Provincial Hospitals and Schools in England. 5. Certificates of attendance upon the practice of a recognised Provincial or Colonial Hospital unconnected with, or not in convenient proximity to, a recognised Medical School, will not be received for more than one winter and one summer session of the hospital attendance required by the regulations of this College; and in such cases Clinical Lectures will not be necessary, *but a certificate of having acted as Dresser for the period of at least six months will be required.* 6. Certificates will not be received from candidates who have studied in London, unless they shall

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* The following are the subjects of the Examination (No. 12) during the years 1868 and 1869; viz.—Part I. *Compulsory Subjects.* 1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition: such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No candidate will be passed who does not show a competent knowledge of the first four rules, simple or compound, of Vulgar Fractions, and of Decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History; that is, the succession of the Sovereigns and the leading events of each reign. 8. Euclid, Book I. 9. Translation of a passage from the second book of Cæsar's *Commentaries De Bello Gallico.*—Part II. *Optional Subjects.* Papers will also be set on the following seven subjects; and each candidate will be required to offer himself for examination on one subject at least, at the option of the candidate; but no candidate will be allowed to offer himself for examination on more than four subjects:—1. Translation of a passage from the first Book of the *Anabasis* of Xenophon. 2. Translation of a passage from X. B. Saintine's *Picciola.* 3. Translation of a passage from Schiller's *Wilhelm Tell.* Besides these translations into English, the candidate will be required to answer questions on the Grammar of each subject, whether compulsory or selected. 4. Mathematics: Algebra to Simple Equations inclusive. 5. Mechanics: the questions will be chiefly of an elementary character. 6. Chemistry: the questions will be on the elementary facts of Chemistry. 7. Botany and Zoology: the questions will be on the Classification of Plants and Animals. The quality of the handwriting and the spelling will be taken into account. N.B. Each candidate is required to pay the Fee of £2 on the morning of the first day of the Examination, prior to his admission thereto. The Examination is at present held in June and December. NOTE. A candidate, in order to qualify for the Fellowship, is required to pass in the subjects numbered 1, 2, and 4, and in one, at his option, of the subjects numbered 3, 5, 6, and 7, Part II, in addition to the compulsory subjects contained in Part I.

† This Regulation applies to candidates who commenced their Professional Education on or after the 1st of October 1862.

* The Regulations in italics in Sections II and III, apply to candidates in the United Kingdom who commenced their professional education on or after the 1st of October 1863; and to candidates who commenced their professional education in the Colonies on or after the 1st of October 1864.

have registered at the College their cards of admission to attendance on Lectures and Hospital Practice within fifteen days from the commencement of the session; nor from candidates who have studied in the Provincial Schools in England, unless their names shall be duly returned from their respective schools.[*] 7. Candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland, from candidates for their diploma. Candidates who shall have pursued the whole of their studies at recognised Foreign or Colonial Universities will be admitted upon the production of the several certificates required for their Degree by the authorities of such Universities. 8. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, Graduates in Surgery of any University recognised for this purpose by this College. 9. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College, will be admitted to examination on producing their Diploma, Licence, or Degree, together with proof of being twenty-one years of age. In each of the cases, 7, 8, and 9, the candidate will also be required to produce a certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four entire years in the acquirement of professional knowledge.

Section IV.—*Professional Examination.*

This Examination is divided into two parts. 1. The First or Primary Examination, on Anatomy and Physiology, is partly written, and partly demonstrative on the recently dissected subject, and on prepared parts of the human body. 2. The Second or Pass Examination, on Surgical Anatomy and the Principles and Practice of Surgery, is partly written, partly oral, and partly on the practical use of Surgical Apparatus. 3. The Primary Examinations are held in the months of January, April, May, July, and November; and the Pass Examinations generally in the ensuing week respectively. 4. Candidates will not be admitted to the Primary, or Anatomical and Physiological Examination, until after the termination of the second Winter Session of their attendance at a recognised School or Schools; nor to the Pass, or Surgical Examination, until after the termination of the fourth year of their professional education. 5. The fee of Five Guineas, paid prior to the Primary Examination, and allowed on the whole fee of Twenty-two Pounds[†] payable for the Diploma, is retained; and after any two consecutive failures at the Primary Examination, the candidate is required to pay an *additional* fee of Five Guineas prior to being again admitted to that Examination, which *additional* fee is also retained. 6. Five Guineas, part of the sum of Sixteen Pounds Fifteen Shillings, the balance for the whole fee due for the Diploma and paid prior to the Pass Examination, is retained; and after any two consecutive failures at the Pass Examination, the Candidate is required to pay an *additional* fee of Five Guineas prior to being again admitted to the said Pass Examination, which *additional* fee is also retained. 7. A Candidate having entered his name for either the Primary or Pass Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, will not be allowed to present himself for examination within the period of three months from the date at which he shall have so failed to attend. 8. A candidate referred on the Primary Examination is required, prior to his admission to re-examination, to produce a certificate of the performance of Dissections during not less than three months subsequently to the date of his reference. 9. A candidate referred on the Pass Examination is required, prior to his admission to re-examination, to produce a certificate of at least six months' further attendance on the Surgical Practice of a recognised Hospital, together with Lectures on Clinical Surgery, subsequently to the date of his reference.

SOCIETY OF APOTHECARIES, LONDON.

REGULATIONS REGARDING THE LICENCE.

EVERY Candidate for a Certificate of Qualification to practise as an Apothecary will be required to produce testimonials—1. Of having passed a Preliminary Examination in Arts, as a test of General Education. (This Examination must be passed before the commencement of Professional Studies, which is defined by the Medical Council to be "the time of commencing studies at a Medical School".) 2. Of having served an Apprenticeship or Pupilage of not less than five years to a Practitioner qualified by the Act of 1815. (This period may include the time spent in attending Lectures and Hospital Practice.) 3. Of having attained the full age of twenty-one years. (As evidence of age, a copy of the baptismal register will be required in every case where it can possibly be procured.) 4. Of good moral conduct. 5. Of having pursued a course of Medical Study in conformity with the regulations of the Court.

Course of Professional Study.

Every Candidate whose attendance on Lectures shall have commenced on or after October 1st, 1862, must attend the following Lectures and Medical Practice during not less than Three Winter and Two Summer Sessions (each Winter Session to consist of not less than six months, and to commence not sooner than the 1st nor later than the 15th of October; and each Summer Session to extend from the 1st of May to the 31st of July).

First Year—Winter Session: Chemistry; Anatomy and Physiology; Dissections. Summer Session: Botany; Materia Medica and Therapeutics; Practical Chemistry.—Second Year—Winter Session: Anatomy and Physiology, including Dissections and Demonstrations; Principles and Practice of Medicine; Clinical Medical Practice. Summer Session: Midwifery and Diseases of Women and Children, and Vaccination; Forensic Medicine and Toxicology; Clinical Medical Practice. —Third Year—Winter Session: Principles and Practice of Medicine; Clinical Medical Lectures; Morbid Anatomy; Clinical Medical Practice.

No Certificates of Lectures, or of Anatomical Instructions delivered in private to particular Students apart from the ordinary classes of recognised public Medical Schools, can be received by the Court of Examiners. All Certificates must be given on a printed Schedule, and signed by the respective Lecturers. Students will be supplied with Schedules at the time of their first Registration: in London, at this Hall; and in the Provincial Towns, by the Registrars of the Medical Schools.

All Students are required *personally* to register the several Tickets of admission to Lectures on Medical Practice within the first fifteen days of the months of October and May.

Examination in Arts.

An Examination in Arts will take place at the Hall three times in the year; namely, on the last Friday and Saturday of the months of January, April, and September.[*] By order of the Medical Council, an Examination in Arts is compulsory on all gentlemen commencing their Studies on or after the 1st of October, 1861, and must be passed previously to Registration.—Testimonials of Proficiency in General Education will be received, as exempting from the Examination of Arts at this Hall, from the National Educational Bodies recognised by the General Medical Council, and also from any of the following Licensing Bodies under the Medical Act of 1845: the several Colleges of Physicians and Surgeons; and the Faculty of Physicians and Surgeons of Glasgow.

Professional Examination.

The Court of Examiners meet in the Hall every Thursday, where Candidates are required to attend at a quarter before four o'clock. Every person intending to offer himself for Examination must give notice in writing to the Clerk of the Society on or before the Monday previous to the day of Examination, and must at the same time deposit all the required Testimonials, with the fee, at the Office of the Beadle, where attendance is given every day, except Sunday, from ten to four o'clock; Saturdays, ten to two.

The Examination of Medical Students is divided into two parts, and is conducted partly in writing, and partly *vivâ voce.*

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[*] At the registration in October, candidates who shall have commenced their professional education subsequently to the 1st of October 1862, will be required to produce a certificate of having passed one or other of the Preliminary Examinations in General Knowledge recognised by this College.

[†] This sum of twenty-two pounds is exclusive of the fee of two pounds paid for the Preliminary Examination.

[*] The following are the subjects for examination in 1869. 1. *The English Language.* The leading features of its History. Its Structure and Grammar. English Composition. [The Books recommended for study in this subject are Adams's *Elements of the English Language* and Trench on the *Study of Words.*]—2. *The Latin Language. January Examination:* Cicero, *De Amicitiâ. April Examination:* Ovid, *Metamorph.*, Books I and II. *September Examination:* Horace, *Odes*, Books III and IV. Re-translation of easy sentences. Grammatical questions will be introduced into the Latin Paper, and each Candidate will be expected to give satisfactory answers to these.—3. *Mathematics.* The Ordinary Rules of Arithmetic; Vulgar and Decimal Fractions; Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Simple Equations; The First Two Books of *Euclid.*—4. (*a*) *Greek.* Xenophon, *Anabasis*, Books I and II; Grammatical Questions. (*b*) *French. Paul and Virginia;* Translation from English into French; Grammatical Questions. (*c*) *German.* Schiller's *Wilhelm Tell;* Translation of short sentences from English into German; Grammatical Questions. (*d*) *Natural Philosophy.* Mechanics; Hydrostatics and Pneumatics. [The Book recommended for study in this subject is Snowball's *Cambridge Course of Elementary Natural Philosophy.*]—N.B. In pursuance of a Regulation of the Medical Council, the Examination, after the year 1869, will comprise five branches, Greek being transferred to the list of compulsory subjects.—Gentlemen intending to present themselves for Examination, are requested to send their names and address, with the fee, to Mr. J. C. Sargeant, Beadle's Office, at the Hall, at least one week previous to the day of Examination. Post-Office Orders to be made payable at Fleet Street.

The First Examination, which may be passed after the Second Winter Session, embraces the following subjects:—The *British Pharmacopœia*, Latin of Physicians' Prescriptions; Anatomy and Physiology; General and Practical Chemistry; Botany and Materia Medica.—Second or Pass Examination, after the Third Winter Session (the five years' pupilage being completed); Practice of Medicine and Pathology; Midwifery, including the Diseases of Women and Children; Forensic Medicine and Toxicology.

Modified Examinations.—All Graduates in Medicine of British Universities will be admitted to a Practical Examination in Medicine and Midwifery only.—Licentiates of the Royal College of Physicians, London; of the Royal College of Physicians, Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland; of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall, Dublin, will be admitted to a *vivâ voce* Examination in Medicine, Midwifery, Forensic Medicine, and Toxicology.—Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland, possessing a surgical qualification only, will be admitted to a first and second Examination on one evening; which Examination will be conducted partly *vivâ voce*, and partly in writing: the latter in Medicine with Therapeutics, Midwifery, Forensic Medicine, and Toxicological Chemistry.—Any Candidate who has passed his first Examination for the Licence of the Royal College of Physicians, London, of the King and Queen's College of Physicians, Ireland, of the Royal College of Physicians and Surgeons, Edinburgh (joint), of the College of Physicians, Edinburgh, or of the Faculty of Physicians and Surgeons, Glasgow; the first Professional Examination for the Degree of M.B., or Master in Surgery in the Universities of Oxford, Cambridge, or London; or the second part of the Professional Examination for the Degree of M.B., or Mastery in Surgery in the Universities of Edinburgh, Aberdeen, St. Andrew's and Glasgow; or the first Examination for Medical and Surgical Degrees in the Irish Universities; or the first Examination for the Licence of the Apothecaries' Company, Dublin, will be admitted to a single Examination in Materia Medica, Therapeutics, Medicine, Pathology, Midwifery, and Toxicology, part of which Examination will be conducted in writing.

Candidates who desire to avail themselves of the *Modified Examination for Senior Candidates*, must produce evidence.—1. That they are more than forty years of age. 2. That they have served an Apprenticeship of five years to an Apothecary; or, at least, that they have been engaged in such a course of study as shall be considered "serving after the manner of an Apprentice, for five years," in conformity with the Act of 1815. 3. Of good moral conduct. 4, That they have attended such Lectures and Hospital Practice as were required of Students when their Medical Studies commenced, or such as shall be deemed equivalent. The Examination of the above Candidates will consist, in the Translation of Physicians' Prescriptions; in such parts of Chemistry and Materia Medica as bear upon the Practice of Medicine, and on Toxicology; in Visceral Anatomy; in the Practice of Medicine, including Diseases of Women and Children; and in Midwifery. Candidates, unless registered, will be required to produce their Diploma.

The Examination of Candidates for Certificates of Qualification to act as Assistant in Compounding and Dispensing Medicines will be as follows:—In translating Physicians' Prescriptions, in the *British Pharmacopœia*, and in Pharmacy and Materia Medica.

By the 22nd section of the Act of Parliament, no rejected Candidate can be re-examined until the expiration of six months from his former Examination; and no rejected Candidate, as an Assistant, until the expiration of three months.

Any Candidate who presents himself for the first Examination and is rejected, may be admitted to re-examination at the expiration of *three months*.

Fees.—For a Certificate of Qualification to practise, £6 : 6; for an Assistant's Certificate, £2 : 2.

Students' Prizes.

The Society of Apothecaries annually offer two Prizes for Proficiency in the knowledge of Botany, and also two Prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The Prizes consist of—1, a Gold Medal; 2, a Silver Medal and a Book.

The Examination in Botany will be held at the Hall of the Society on the second Wednesday in August, at 10 A.M., and will be conducted by printed papers and *vivâ voce* questions. Each gentleman intending to compete for the Prizes must send a written notice of his intention to the Beadle on or before the 1st of August, which notice must be accompanied by evidence of his having entered upon the Second Summer Session of his Medical Studies, and by a certificate of his having attended the Lectures and Class Examinations with diligence and regularity.

The Examinations in Materia Medica and Pharmaceutical Chemistry will be held at the Hall of the Society on the third Wednesday in October, and on the following Friday, from 10 in the forenoon to one in the Afternoon of each day, by printed papers on the Wednesday, and by *vivâ voce* questions on the Friday. Each gentleman intending to compete must send a written notice of his intention to the Beadle on or before the 7th of October, which notice must be accompanied by evidence of his having entered upon the Third Winter Session of his Medical Studies, and by a Certificate of his having attended the Lectures and Class Examination with diligence and regularity.

The Society's Botanic Garden at Chelsea is open daily (except Sunday) from ten till five o'clock P.M., and on Saturday, ten till two. Tickets of admission may be had on application at the Beadle's Office, Apothecaries' Hall, Blackfriars, E.C.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

EVERY Student must reside either in one of the Colleges or Halls, or in a Licensed Lodging-House for three years. During these three years he has to pass two Examinations in Arts, and one in either Mathematics, Natural Science, or Law and Modern History; when, if he obtain a first, second, or third class, he can take his B.A. degree; if he do not gain such honours, he has to pass a third Examination *in Literis Humanioribus*. A Student deciding to graduate in Medicine must, after passing the requisite Examination for the Degree of B.A., spend two years in study prior to a Scientific Examination for the Degree of Bachelor of Medicine, unless he shall have taken a first or second class in the Natural Science School, when he may go in at the first opportunity for the first M.B. Examination. Two years after passing this Examination, he may go in for the second or practical Examination for the M.B. Degree. These four years of medical study may be spent either in or out of Oxford, in an approved Medical School.

The M.B. Degree confers the Licence to practice. There is no subsequent examination for the Degree of Doctor in Medicine. For that Degree a dissertation has to be publicly read three years after taking the M.B. Degree.

The Medical Examinations take place annually in Michaelmas Term.

The instruction in Natural Science is carried on at the Museum, where the following Teachers have their Departments.

Regius Professor of Medicine: H. W. Acland, M.D., LL.D., F.R.S.
Savilian Professor of Astronomy: W. F. Donkin, M.A., F.R.S.
Savilian Professor of Geometry: H. J. S. Smith, M.A., F.R.S.
Professor of Experimental Physics: R. B. Clifton, M.A., F.R.S.
Professor of Natural Philosophy: Bartholomew Price, M.A., F.R.S.
Professor of Geology: J. Phillips, M.A., D.C.L., F.R.S.
Professor of Mineralogy: M. H. N. Story-Maskelyne, M.A.
Professor of Chemistry: Sir B. C. Brodie, Bart., M.A., F.R.S.
Linacre Professor of Physiology: G. Rolleston, M.D., F.R.S.
Professor of Zoology: J. O. Westwood, M.A., F.L.S.
Lee's Reader in Anatomy: W. S. Church, M.A., M.B.
Demonstrator in Anatomy: C. Robertson, Esq.
Demonstrations in Morbid Anatomy by Dr. Tuckwell.
Radcliffe Librarian: H. W. Acland, M.D., LL.D., F.R.S.
Sub-Librarian: J. Haines.
Sherardian Professor of Botany at the Botanical Gardens: J. S. Lawson, M.A.
Clinical Medicine at the Infirmary by Drs. Acland, Gray, and Tuckwell.
Lee's Reader in Chemistry at Christ Church: A. G. V. Harcourt, M.A., F.R.S.

Scholarships of about the value of £75 are obtainable at Christ Church, Magdalen and other Colleges, by competitive Examination in Natural Science. Every year a Radcliffe Travelling Fellowship is competed for by any who, having taken a first-class in any of the Public Examinations of the University, or having obtained some University Prize or Scholarship open to general competition, propose to study medicine. The travelling Fellows receive £200 a year for three years, half this period being spent in study abroad.

UNIVERSITY OF CAMBRIDGE.

DEGREES IN MEDICINE AND SURGERY.

Degree of Bachelor of Medicine.

A STUDENT proceeding to this Degree must—1, Reside in the University two-thirds of each of nine terms; 2, Pass the previous Examination*;

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* A student who is, at least, in his second term of residence, may be admitted to the Previous Examination, and also to the Examination in the Additional Subjects

3, Pursue medical study for five years, unless he have obtained honours in the Mathematical, Classical, Moral Sciences, or Natural Sciences Tripos, in which case only four years are required. Of this time of five years he must spend six terms in medical study in the University[*] after passing the previous Examination, unless he has obtained honours in one of the above-mentioned Triposes, in which case four terms only are required.—A student who has not graduated in Arts is required, before keeping the terms of medical study, in addition to passing the Previous Examination, to pass in Algebra either in the Examination for the additional subjects of the Previous Examination (which he may do in his second term of residence or in any subsequent term), or in the general Examination for the ordinary B.A. Degree.

There are three Examinations for the Degree of Bachelor of Medicine, conducted partly by written questions, and partly *vivâ voce*. The Examination includes chemical analysis, the recognition and description of specimens (healthy, morbid, and microscopical), dissections, and the examination of patients.

The subjects of the first Examination are—1, Mechanics and Hydrostatics; 2, Chemistry with Heat and Electricity; 3, Botany.[†] The student may present himself for this Examination at any time after passing the Previous Examination. He must produce certificates of having diligently attended one course of Lectures on Chemistry, including Manipulations, and one course on Botany.

The subjects of the second Examination are—1, Elements of Comparative Anatomy;[‡] 2, Human Anatomy and Physiology; 3, Pharmacology. Before presenting himself for this Examination, the student must have completed two years of medical study, the time of medical study required to be spent in the University being included in these two years. He must have attended hospital practice during one year, have practised dissection during one season, and must produce certificates of having diligently attended a course of Lectures on each of the following subjects:—1, Elements of Comparative Anatomy; 2, Human Anatomy and Physiology; 3, Materia Medica and Pharmacy; 4, Pathology.

The subjects of the third Examination are—1, Pathology and the Practice of Physic (two papers); 2, Clinical Medicine; 3, Medical Jurisprudence.—Before presenting himself for this Examination, the student must have completed the course of medical study, must have attended Hospital practice during three years, and must produce certificates of having attended one course of Lectures on each of the following subjects:—1, Principles and Practice of Physic; 2, Clinical Medicine; 3, Clinical Surgery; 4, Medical Jurisprudence; 5, Midwifery.

After these Examinations have been passed, an Act must be kept in the Schools. The Candidate reads a thesis, composed in English by himself on some subject approved by the Professor; the Professor brings forward arguments or objections in English for the Candidate to answer, and examines him *vivâ voce* as well as on questions connected with his thesis as on other subjects in the faculty of a more general nature. The exercise must continue at least one hour.

Degree of Doctor of Medicine.

This may be taken by a Bachelor of Medicine in the ninth term after his inauguration. He is required to produce certificates of having been engaged five years in medical study, to keep an Act similar to that for M.B., and write an extempore essay. He pays ten guineas to the Professor of Physic for the Act.—A Master of Arts may proceed to the Degree of M.D. in the twelfth term after his inauguration as M.A. without having taken the degree of M.B. He must pass the three Examinations for M.B., and keep the Act for the M.D. Degree. He must produce certificates of having been engaged five years in medical study, and the same certificates of attendance on Lectures and Hospital practice are required as of the Candidate for the Degree of M.B.; but he is not required to have kept medical terms in the University.

Degree of Master in Surgery.

The subjects of the Examination for this Degree are—1, Surgical Anatomy; 2, Pathology and the Principles and Practice of Surgery; 3, Clinical Surgery; 4, Midwifery.—Before admission to this Examination, the Candidate must have passed all the Examinations for the Degree of M.B., and must produce certificates of having attended the surgical practice of a Hospital for three years, of having been House-Surgeon or Dresser for six months, and of having attended—1, a second course of Lectures on Human Anatomy; 2, one course of Lectures on the Principles and Practice of Surgery; 3, Lectures on Clinical Surgery, during one year; 4, ten cases of Midwifery; 5, of having practised Dissection during a second season.—The examination takes place at the same time as those for M.B., and in a similar manner. The Candidate is required to perform operations on the dead body, and to examine patients in the Hospital.[*]

The Lectures by the Medical Professors and Teachers in the University begin in October. The following are given in the course of the year.

Pathology and Practice of Medicine: H. J. H. Bond, M.D.
Chemistry: G. D. Liveing, M.A.
Anatomy: G. M. Humphry, M.D., F.R.S.
Botany: C. C. Babington, M.A., F.R.S.
Materia Medica: W. W. Fisher, M.D.
Surgery: G. M. Humphry, M.D., F.R.S.
Clinical Medicine: H. J. H. Bond, M.D.; G. E. Paget, M.D.; P. W. Latham, M.D.
Clinical Surgery: C. Lestourgeon, M.A.; G. M. Humphry, M.D.
Practical Chemistry: G. D. Liveing, M.A.
Practical Anatomy: E. Carver, M.B., M.A.

UNIVERSITY OF LONDON.

DEGREES IN MEDICINE AND SURGERY.

THE following Examinations for Degrees in Medicine are held in the University of London. Each takes place once yearly.

Preliminary Scientific Examination, commencing on the third Monday in July.
First M.B. Examination: Last Monday in July.
Second M.B. Examination: First Monday in November.
Bachelor of Surgery: Tuesday following the fourth Monday in November.
Master in Surgery: Fourth Monday in November.
Doctor of Medicine: Fourth Monday in November.

The Certificates in each case must be transmitted to the Registrar at least fourteen days before the commencement of the Examination.

The fee for each Examination is Five Pounds.[†] If a Candidate withdraw or fail to pass either of the Examinations, the fee is not returned; but he is admitted without further payment, to *two* subsequent Preliminary Scientific, First M.B., Second M.B., or B.S. Examinations, or to *one* subsequent M.S. or M.D. Examination, provided that he give notice to the Registrar at least fourteen days before the commencement of the Examination.

Bachelor of Medicine.

Candidates for the Degree of Bachelor of Medicine are required:—1. To have passed the Matriculation Examination of this University, or to have taken a Degree in Arts in one of the Universities of the United Kingdom or of Australia. 2. To have been engaged in their Professional Studies during four years subsequently to Matriculation or Graduation in Arts, at one or more of the Medical Institutions or Schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised Institutions or Schools in

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held in the Lent Term, provided he presents to the Registrary a Certificate from the Master of his College, or his *locum tenens*, stating that he has declared that it is *bonâ fide* his intention to register himself as a medical student and to study medicine in the University. But in order that such a student may be admitted to the Examination for any Tripos, or to the Degree of Bachelor of Arts or Bachelor of Law, a Certificate from the Regius Professor of Physic that he has been *bonâ fide* engaged in Medical Study, including Hospital Practice, subsequently to having passed the Previous Examination, and also Certificates that he has attended three Courses of Medical Lectures subsequently to his having passed the Previous Examination, must be presented to the Council.

[*] That is, by attending, in each Term, Courses of Lectures delivered in the University on two of the following subjects; viz., Chemistry, Botany, Human Anatomy and Physiology, Comparative Anatomy, Materia Medica and Pharmacy, Pathology; or, instead of two Courses of Lectures, by attending one Course of Lectures and the Medical Practice of Addenbrooke's Hospital.

[†] Students who have obtained Honours in the Mathematical, Classical, Moral Sciences, or Natural Sciences Tripos, or passed the general Examination for the B.A. Degree, are not required to be examined in Mechanics and Hydrostatics; and those students who have obtained Honours in the Natural Sciences Tripos are not required to be examined in Botany or Chemistry, with Heat and Electricity, if they have passed with credit the Examination in the Tripos in those subjects. Students who have passed the special Examination in Botany for the B.A. Degree, are not required to be examined again in that subject.

[‡] Students who have obtained honours in the Natural Sciences Tripos, and passed with credit the examination in Comparative Anatomy for that Tripos, are not required to be examined again in that subject.

[*] A notice is published early in the Michaelmas and Easter Terms, stating when the examinations for Medical and Surgical Degrees respectively commence, and the date when candidates are required to send to the Regius Professor of Physic notices of their intention to offer themselves for Examination and the necessary Certificates. Each candidate sends Three Guineas to the Professor with the notice of his intention to offer himself for his First Examination. Schedules defining the range of subjects in the First Examination, and of the Comparative Anatomy in the Second Examination, also Schedules for the requisite Certificates, and a List of the Schools of Medicines recognised by the University, may be obtained, on application, from the Regius Professor of Physic.

[†] For the Degree of Doctor of Medicine, the Fee will continue to be Ten Pounds to all such as, having taken their M.B. Degree under the former Regulations, shall not have paid the fee of Five Pounds at the Preliminary Scientific Examination.

the United Kingdom. 3. To pass the Preliminary Scientific Examination,[*] and two Examinations in Medicine.

Preliminary Scientific Examination. A Candidate must have completed his seventeenth year, and have either passed the Matriculation Examination or taken a degree in Arts in one of the Universities of the United Kingdom or of Australia. Candidates are examined in Mechanical Philosophy, including Statics, Dynamics, Hydrostatics, Hydraulics, Pneumatics, and Optics; Natural Philosophy, including Heat, Electricity, and Magnetism; Inorganic Chemistry; Botany and Vegetable Physiology; Zoology and Comparative Anatomy. They must show a competent knowledge in all the subjects of Examination.

Examination for Honours.—Any Candidate who has passed the Preliminary Scientific Examination may be examined for Honours in (1) Chemistry and Natural Philosophy, (2) Botany, (3) Zoology; and the Candidate, of not more than Twenty-two Years of age, who shall have distinguished himself the most in either of three subjects, receives an Exhibition of £40 *per annum* for the next two years, payable in quarterly instalments.

First M.B. Examination.—The Candidate must produce Certificates:—1. Of having completed his nineteenth year. 2. Of having passed the Preliminary Scientific Examination at least one year previously. 3. Of having been a Student during two years at one or more of the Medical Institutions or Schools recognised by this University; and of having attended a Course of Lectures on each of three of the following subjects:—Descriptive and Surgical Anatomy; General Anatomy and Physiology; Comparative Anatomy; Pathological Anatomy; Materia Medica and Pharmacy; General Pathology; General Therapeutics; Forensic Medicine; Hygiene; Midwifery and Diseases peculiar to Women and Infants; Surgery; Medicine.[†] 4. Of having Dissected during two Winter Sessions. 5. Of having attended a Course of Practical Chemistry, comprehending Practical Exercises in conducting the more important processes of General and Pharmaceutical Chemistry; in applying Tests for discovering the Adulteration of articles of the Materia Medica, and the presence and nature of Poisons; and in the examination of Mineral Waters, Animal Secretions, Urinary Deposits, Calculi, etc. 6. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the Preparation of Medicines. Candidates are examined in Anatomy; Physiology;[‡] Materia Medica and Pharmaceutical Chemistry; Organic Chemistry. Candidates must show a competent knowledge in all the subjects of examination.

Examination for Honours.—Any Candidate who has been placed in the First Division may be examined for Honours in (1) Anatomy, (2) Physiology, Histology, and Comparative Anatomy, and (3) Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who distinguishes himself most in each of these three divisions receives an exhibition of £40 *per annum* for the next Two Years, payable in quarterly instalments; provided that on receiving each instalment he declare his intention of presenting himself at the Second M.B. Examination within three years from the time of his passing the First M.B. Examination. Under the same circumstances, the First and Second Candidates in each subject receive each a Gold Medal of the value of Five Pounds.

Second M.B. Examination.[§]—No Candidate is admitted to this Examination within Two Academical Years of the time of his passing the First Examination, nor without Certificates:—1. Of having passed the first M.B. Examination. 2. Of having subsequently attended a Course of Lectures on each of two of the subjects for which he had not presented Certificates at the First Examination. 3. Of having conducted at least Twenty Labours.[||] 4 and 5. Of having attended the Surgical and the Medical Practice of a recognised Hospital or Hospitals during Two Years, with Clinical Instruction and Lectures on Clinical Surgery and Clinical Medicine.[*] 6. Of having, subsequently to the completion of his attendance on Surgical and Medical Hospital Practice, attended to Practical Medicine, Surgery and Midwifery, with special charge of patients, in Hospital, Infirmary, Dispensary, or Parochial Union, during Six Months. The Candidate must also produce a Certificate of Moral Character from a teacher in the last School or Institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. Candidates are examined in the following subjects:—General Pathology, General Therapeutics, and Hygiene; Surgery; Medicine; Midwifery; Forensic Medicine. The Examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. The Examinations are conducted by Printed Papers and *Vivâ Voce* Interrogation; by Practical Examinations on Obstetric Preparations and Apparatus; by Examination, and Report on Cases, of Medical Patients in the Wards of a Hospital: Demonstration from Specimens and Preparation. Candidates are expected to write Prescriptions in Latin, without abbreviations.

The Senate desire it to be understood that Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

Examination for Honours.—Any Candidate who has been placed in the First Division may be examined for Honours in (1) Medicine, (2) Midwifery, and (3) Forensic Medicine. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who distinguishes himself the most in Medicine receives £50 *per annum* for the next Two Years, with the style of University Scholar in Medicine, and the Candidates who distinguish themselves the most in Midwifery and in Forensic Medicine receive each £30 *per annum* for the next Two Years, with the style of University Scholar in Midwifery and in Forensic Medicine respectively. The First and Second Candidates in each of the preceding subjects each receive a Gold Medal of the value of Five Pounds.

Bachelor of Surgery.

The Candidate must produce Certificates:—1. Of having taken the Degree of Bachelor of Medicine in this University, 2. Of having attended a Course of Instruction in Operative Surgery, and of having operated on the Dead Subject. The Examinations are conducted by printed Papers on Surgical Anatomy and Surgical Operations; by Examination and Report on Cases of Surgical Patients; by Performance of Surgical Operations upon the Dead Subject; by Application of Surgical Apparatus; and by *Vivâ Voce* Interrogation.

Examination for Honours.—Any Candidate who has passed the B.S. Examination may be Examined for Honours in Surgery. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who distinguishes himself the most receives £50 *per annum* for the next Two Years, with the style of University Scholar in Surgery. Under the same circumstances, the First and Second Candidates each receive a Gold Medal of the value of Five Pounds.

Master in Surgery.

The Candidate must produce Certificates:—1. Of having taken the Degree of Bachelor of Surgery[†] in this University. 2. Of having attended subsequently—(*a*) To Clinical or Practical Surgery during Two Years in a Hospital or Medical Institution recognised by this University; (*b*) Or to Clinical or Practical Surgery during One Year in a Hospital or Medical Institution recognised by this University, and of having been engaged during Three Years in the Practice of his Profession; (*c*) Or of having been engaged during Five Years in the Practice of his Profession, either before or after taking the Degree of Bachelor of Surgery in this University.[‡] 3. Of Moral Character, signed by two persons of respectability. The Examination is conducted by means of printed Papers and *Vivâ Voce* Interrogation; and the Candidates are examined in Logic and Moral Philosophy,[*] and in Surgery. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who distinguishes himself the most at the Examination for the Degree of Master in Surgery receives a Gold Medal of the value of Twenty Pounds.

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[*] Candidates who matriculated previously to January 1861, are not required to pass the Preliminary Scientific Examination in any other subjects than Chemistry and Botany; and they are allowed to pass the Preliminary Scientific Examination and the First M.B. Examination in the same year, if they so prefer.

[†] The subjects numbered 3, 4, and 5, must be attended after taking a Degree in Arts or passing the Matriculation Examination.

[‡] Any candidate is allowed, if he so prefer, to postpone his Examination in Physiology from the First M.B. Examination at which he presents himself for examination in the remaining subjects until the First M.B. Examination in the next or any subsequent year; but such candidate is not admitted to compete for Honours on either occasion; and he cannot be admitted as a candidate at the Second M.B. Examination until after the lapse of at least twelve months after having passed his Examination in Physiology.

[§] Any candidate for the Second M.B. Examination who has passed the First M.B. Examination under the former Regulations, is required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the present Regulations; at which Examination he is not allowed to compete for Honours.

[||] Certificates on this subject will be received from any legally qualified Practitioner in Medicine.

[*] The student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5, may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the First M.B. Examination. Attendance during Three Months in the Wards of a Lunatic Asylum recognised by the University, with Clinical Instruction, may be substituted for a like period of attendance on Medical Hospital Practice. The Senate regard it as highly desirable that candidates for the Degree of M.B. should practically acquaint themselves with the different forms of Insanity by attendance in a Lunatic Asylum.

[†] Candidates who have obtained the Degree of Bachelor of Medicine previously to 1866, will be admitted to the Examination for the Degree of Master in Surgery without having taken the Degree of Bachelor of Surgery; and in the case of such candidates, the attendance on Surgical Practice required by Regulation 2, may commence from the date of the M.B. Degree.

[‡] One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the First Division.

Doctor of Medicine.

The Candidate must produce Certificates analagous to those required for Candidates for the Degree of Master in Surgery, but having special relation to Medicine. The Examination is conducted by means of printed Papers and *Vivâ Voce* Interrogation; and Candidates are examined in Logic and Moral Philosophy, and in Medicine. The exemption from the Examination in Logic are the same as in the Degree of Master in Surgery. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most at the Examination for the Degree of Doctor of Medicine receives a Gold Medal of the value of Twenty Pounds.

A Certificate under the Seal of the University, and signed by the Chancellor, is delivered at the Public Presentation for Degrees to each Candidate who has passed the Second M.B. Examination, the Examination for Bachelor and Master in Surgery, and the Examination of Doctor of Medicine.

Candidates who commenced their Medical Studies in or before January 1839, and Practitioners in Medicine or Surgery (prior to 1840), are admitted to Examination under special regulations.

UNIVERSITY OF DURHAM.

REGULATIONS REGARDING DEGREES IN MEDICINE.

EVERY Student in Medicine must have been registered, and no one shall be registered unless he produce Certificates of Age and Character, and have passed one of the Preliminary Examinations recommended by the General Medical Council. The fee for Registration is five shillings. The Registration Examination is directed to the rudiments of Religion, Literature, and Science; and is conducted by two or more Examiners nominated by the Warden. The Registration Examination will begin at Durham, on Tuesday September 22nd, 1868, and on April 19th and September 20th, 1869, at 9 A.M., on each day.[†] Application to be made to Arthur Beanlands, Esq., Durham, at least one month before the day of examination; to whom also candidates must, at the same time, send the examination fee, £1, and the certificates of age and character. Every one who passes that examination shall receive a certificate signed by the Examiners without further payment. The Warden has authority, in case of urgency, to appoint an Extraordinary Registration Examination, the fee for which is £2.

A Medical Scholarship, of the annual value of £25, will be awarded by examination, commencing on Tuesday, October 6th 1868, and open to all candidates who have not been duly registered as Students in Medicine. The Scholarship is tenable for four years by a student pursuing his medical studies, and not of sufficient standing to proceed to a Licence in Medicine. The first year at least must be passed at the University, and the remaining period at some recognised Medical School[‡]

Licence in Medicine.

Residence in Durham is not imperative. A candidate must produce Certificates of Registration as a Student in Medicine, of having, after Registration, spent four years in medical study, at one or more of the schools recognised by the Licensing Bodies named in Schedule A of the Medical Act, of good moral conduct, and of having attained the age of twenty-one years. There are two Examinations; one after the Second Winter Session, the other after the Fourth Winter Session of Medical Study. The first is directed to Anatomy, Physiology, and Chemistry; the second to the other branches of Medical Education, and more particularly to the Practice of Medicine.

Licence in Surgery.

The Regulations are the same as those for the Licence in Medicine, except that the final examination is directed more particularly to Surgery, and may or may not be passed at the same time as the final Examination for the Licence in Medicine.

Candidates for the Licence in Medicine, and for the Licence in Surgery, must bring Certificates of having attended during their first two years of study, two Six Months' Courses of Lectures on Anatomy and on Physiology, and one Six Months' Course of Chemistry: of having been engaged Six Months in Practical Pharmacy, and for two Winter Sessions in Practical Dissection of the Human Body, and of having attended for twelve months the Surgical and the Medical Practice, with Clinical Lectures of a Hospital recognised by the University. During the remaining two years are required, two six months' course of Lectures on the Principles and Practice of Surgery, and the same on Medicine; two Three Months' Courses of Lectures and Demonstrations on Morbid Anatomy, and one Three Months' Course each of Lectures on Botany, on Materia Medica, on Practical Chemistry, on Midwifery, and on Medical Jurisprudence, together with Surgical and Medical Hospital Practice and Clinical Lectures during two Winter Sessions and one Summer Session.

Degree of Master in Surgery.

Residence during Three Terms at Durham is necessary. A Candidate must be a Licentiate in Surgery and also Licentiate in Medicine, of the University, and of the standing of eighteen terms (six years) at least from the date of his Registration at Durham, and of three terms at least from the date of his admission to the License in Surgery. He must be a Bachelor of Arts, or have passed the final Examination for B.A., or one equivalent thereto, He must have spent one year at least in Medical and Surgical Study in some School of Medicine in connection with the University, and have passed the Examination for the Degree of Master in Surgery. The Examination for this Degree is directed chiefly to the Practice of Surgery.

Degree of Bachelor in Medicine.

Residence during three terms at Durham is necessary. A Candidate must have obtained a Degree in Arts of the University of Durham, or have passed the final Examinations for the Degree of Bachelor in Arts, or one equivalent thereto, must be a Licentiate in Medicine of the University, and of the standing of eighteen terms (six years), from the date of his Matriculation at Durham. The Examination consists in writing an Essay on some medical subject appointed by the Warden and Senate, and in passing an Examination thereon and on the Collateral Medical Sciences.

Degree of Doctor in Medicine.

A candidate must be a Bachelor in Medicine of the University of Durham, and of the standing of twenty-one terms (seven years), from the date of his Matriculation at Durham. The Examination is similar to that for the Degree of Bachelor in Medicine.

The Examination for the Licences and Degrees in Medicine and Surgery are conducted at Newcastle, and those for the former as follows; 1, by printed Papers; 2, practically in Anatomy, Physiology, Chemistry, Materia Medica, Surgery, Medicine, and Medical Jurisprudence; 3, *vivâ voce* on all the subjects.

The next Examination will begin on Monday, June 14th. The Licences and Degrees are conferred in Convocation at Durham.

Fees for Examinations and Degrees.—Senior Middle-Class Examination, £1; Examination at end of First Year, £1; Registration Examination, £1; Extraordinary Registration Examination, £2; Registration, 5s.; each Public Examination in Medicine and in Surgery, £1; Licence in Medicine or Surgery, £3; Degree of Master in Surgery, Bachelor in Medicine, or Doctor in Medicine, each £6.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS FOR THE LICENCE.

CANDIDATES for the Licence of the College must produce satisfactory evidence of having completed the age of twenty-one years, of having been engaged in the Study of Medicine during at least four years, and of having attended the following courses at an University, or at a Medical School recognised by the College:—Anatomy, Practical Anatomy, Chemistry, Practice of Medicine, Clinical Medicine, and Principles and

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[*] Candidates who have taken the Degree of Doctor of Medicine in this University, or a Degree in Arts or in Science either in this University or in an University the Degrees granted by which are recognised by the Senate of this University, shall be exempted from this part of the Examination. The Degrees in Arts of all Universities in the United Kingdom are recognised by the Senate for this purpose.

[†] The Subjects of Examination are—*Necessary Subjects.* The History contained in the Acts of the Apostles; the History of England to the end of the Reign of Henry III; English Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Euclid, Books I and II; the Geography of Great Britain, Ireland, and France. Candidates will be expected to draw from memory Outline Maps of these Countries, showing their chief ranges of Mountains and their principal Rivers, and also to answer questions connected with them. Latin Grammar, with—In April, Cæsar, *De Bello Gallico*, Lib. I and II; In September, Virgil, *Æneid*, Lib. I and II.—*Optional Subjects.* Greek Grammar, with Xenophon's *Memorabilia;* French Grammar, with Voltaire's *Charles XII;* German Grammar, with Goethe's *Dichtung und Wahrheit*, Book I; Elementary Questions in Mechanics, Hydrostatics, and Pneumatics. Candidates who intend to pass an examination in any of these subjects, must signify their intention fourteen days before their examination.—The Durham Senior Middle Class Examination, and the Durham Examination for Students in Arts in their first and second years, are also accepted as qualifications for Registration.

[‡] The Subjects of Examination for a Medical Scholarship on October 6th, 1868, are—The Gospel of St. Mark, in Greek; Latin Grammar; Horace, Odes I and II, or Virgil, *Æneid*, Books I and II; Cicero, *De Amicitiâ*, or *De Senectute;* Arithmetic; Euclid, Book I, or Books I and II.

Practice of Surgery, each a Six Months' course; Practical Chemistry, Materia Medica and Pharmacy, Physiology or Institutes of Medicine, Clinical Surgery, Midwifery, Medical Jurisprudence, Pathological Anatomy or General Pathology, and Practical Pharmacy, each a Three Months' course. The applicant must have attended the practice of a Public Hospital (containing not fewer than 80 beds) during not less than twenty-four months, twelve of which must have been spent in attendance on the Medical Wards. He must also have attended at least six cases of Labour under the superintendence of a qualified Medical Practitioner. Every applicant for the Licence must have passed the Preliminary Examination in Literature and Science before he can be admitted to the Professional Examination.* Every Applicant before being admitted to the final Examination will be required to produce a certificate that he has studied Vaccination under a competent and recognised Teacher; that he has himself performed the operation successfully under the Teacher's inspection; that he is familiar with the different stages of Vaccine Vesicle, and with the methods of preserving Lymph; and that he is thoroughly informed in every necessary part of the subject. Masters and Bachelors of Arts of any British or Foreign University, whose course of study may from time to time be approved of by the College, will be exempted from the Preliminary Examination; also those who have passed the Examination of the National Educational Bodies, or of any of the Licensing Boards recognised by the Medical Act.

The Professional Examination will be divided into two parts: (1) Anatomy, Physiology, Chemistry; (2) Materia Medica and Pharmacy, Pathology and Pathological Anatomy, Practice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine, including the Examination of Patients, as well as of various Morbid Products. No candidate will be admitted to the first Examination until he has completed two, or of the second until he has completed four, years of Professional Study. The Examination will be conducted partly *vivâ voce*, partly by written papers. The following will be the periods of Examination, from October 1868 to October 1889:—1. Preliminary Examinations in Literature and Science, October 24, and November 7, 1868; April 24, and July 24, 1869. 2. First Professional Examinations, October 21, 1868; January 20, March 31, May 5, July 7, July 21, and October 20, 1869. 3. The Second Professional Examinations will take place immediately after the conclusion of each of the First Professional Examinations.

No candidate is admissible to Examination who has been rejected by any other Licensing Board, within three months previous to his Examination.

The Fee payable by a Licentiate is Ten Guineas. If a candidate be unsuccessful at his examination, Two Guineas will be retained to defray expenses.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS FOR CANDIDATES FOR THE DIPLOMA.

THE Regulations regarding Schools of Medicine, Preliminary Examination, and Professional Study and Examination, are similar to those for the Double Qualification (see below); except that the third course of Medicine is not required; and there is no Examination in Medicine or in Pathological Anatomy.

Registered Medical Practitioners whose Degree or Licence in Medicine is dated prior to October 1st, 1861, are exempt from the First Professional Examination. The Examinations under this Regulation may take place on the first and third Tuesdays of each month.

At the Second Examination, the student, in furnishing the statement of his Professional Study, must, if he has been an Apprentice, insert the name of his master, the date of his indenture, and the length of time for which he was bound. If the candidate have been an Apprentice to a Fellow of the College, he must also produce his discharged indenture.

All candidates will be subjected to a practical Clinical Examination in the Surgical Hospital, which examination will include surgical apparatus, bandages, etc.

The Fees are: for the First Examination, £4; for the Second, £6: in each £2 will be returned to unsuccessful candidates. The Fee from candidates who have elsewhere passed the First Professional Examination is £10; of which £2 is retained, if the candidate be unsuccessful. For a Special Examination (of which early notice should be given), there is an extra fee of £4, which is not returned.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

DOUBLE QUALIFICATION IN MEDICINE AND IN SURGERY.

THE Royal College of Physicians of Edinburgh and the Royal College of Surgeons of Edinburgh, while they still continue to give their Diplomas separately, under separate regulations, have made arrangements by which, after one series of Examinations, the student may obtain the Diplomas of both Colleges. This Joint Examination is conducted by a Board, in which each body is represented for examination in those branches which are common to both Medicine and Surgery; but the College of Physicians takes exclusive charge of the Examination in Medicine, and the College of Surgeons of the Examination in Surgery. Students passing that Examination are enabled to register two Qualifications.

1. Every Candidate must have followed his course of study in an University; or in an Established School of Medicine; or in a Provincial School specially recognised by the College of Physicians and Surgeons of that division of the United Kingdom in which it is situate. 2. Under the title *Established School of Medicine* are comprehended the Medical Schools of those cities of Great Britain and Ireland in which Diplomas in Medicine or Surgery are granted, and such Colonial and Foreign Schools as are similarly circumstanced in the countries in which they exist.

Professional Education.

1. Candidates commencing Professional Study after October 1st, 1865, must have been engaged, during four years after the Examination in General Education, in not less than four Winter Sessions' or three Winter and Two Summer Sessions' attendance at a recognised Medical School.* 2. The Candidate must have attended the following separate and distinct Courses of Lectures:—Anatomy two courses† of six months each, and Practical Anatomy, twelve months; or, at the option of the candidate, Anatomy, one course of six months, and Practical Anatomy, eighteen months; Physiology, not less than fifty lectures;‡ Practice of Medicine, Clinical Medicine,§ Medicine (a third course, either Practice or Clinical, at option of student),§ Principles and Practice of Surgery, Clinical Surgery,§ Surgery (a third course, either Principles and Practice or Clinical Surgery at option)§ each six months; Chemistry, Practical or Analytical Chemistry, Materia Medica, Midwifery and Diseases of Women, Medical Jurisprudence, and Pathological Anatomy,‖ each three months. He must also have attended at least six cases of Labour under the superintendence of a qualified Medical Practitioner, either in a recognised Maternity Hospital, or a Dispensary where Midwifery cases are admitted, or in private practice; and must produce a certificate to that effect from the Practitioner under whom he attended. He must also have attended, for three months, a course of instruction in Practical Pharmacy at the Laboratory of an Apothecary, or of a Member of the Pharmaceutical Society of Great Britain, or of a Chemist and Druggist recognised by either College on special application, or of a Public Hospital or Dispensary, or as Assistant to a Registered Practitioner who dispenses medicines to his own patients. 3. The candidate must also have attended, for twenty-four months, a Public General Hospital containing, on an average, at least eighty patients. He must also have attended, for six months, the practice of a Public Dispensary specially recognised by either College; or have been engaged for six months as visiting Assistant to a Registered Practitioner. 4. A certificate of proficiency in Vaccination, signed by a Registered Practitioner, will be required of every Candidate. 5. The six months' courses delivered in *Scotland* must consist of not fewer than 100 Lectures, with the exception of Clinical Medicine and Clinical Surgery. The three

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* The Examination will embrace the following subjects:—1. English—Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions. Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: Translation into English, Cicero *in Catilinam*, Orat. I; or Virgil, *Æneid*, Lib. II. Parsing; Translation from English into Latin, the Latin words being supplied. 5. One of the following subjects, at the option of the candidate:—(1) Greek: Xenophon's *Anabasis*, Book III; Homer's *Iliad*, Book I. (2) French: La Fontaine's *Fables*. (3) German: Schiller's *Wallenstein's Tod*. (4) Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. In Greek, French, and German, parsing of words from the passages given to be translated will be required; also, translation of short sentences from English into the respective languages.

* Candidates commencing study prior to the above date, will be admitted to examination after four Winter Sessions' or three Winter and two Summer Sessions' attendance on Classes at a regular Medical School.

† The two Courses must not be simultaneous.

‡ In those Schools of England and Ireland in which two separate Courses of Lectures are delivered at separate hours—one on Anatomy, the other on Anatomy and Physiology—the former of these Courses will be received as a Course of Anatomy, and the other as a Course of Physiology.

§ Two Courses of Clinical Medicine or of Clinical Surgery of Three Months each, if not simultaneous, will be held equivalent to one Course of Six Months. They must be attended during the period of attendance at the Hospital where they are delivered.

‖ A Certificate of Attendance at the *Post Mortem* Examinations at a General Hospital will be accepted in lieu of the course of Pathological Anatomy.

months' courses must consist of not fewer than fifty Lectures.[*] It is strongly recommended to Students to avail themselves of opportunities of attending Lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the Use of the Microscope.

Registration. 1. A book shall be kept in the Hall of each College for the Registration of all Medical Students who may apply. In one or other of these books, all Edinburgh Students who desire to possess the Diplomas of the Colleges must be registered. 2. No Student beginning Professional Study after September 1865 can be registered who has not passed the Preliminary Examination in General Education of the Colleges, or one of the equivalent Examinations. 3. The Register shall be closed *within fifteen days* after the commencement of each session or term. 4. When a Student is prevented by sickness, or any other unavoidable cause, from complying with the above regulations, he shall, *as soon as the case admits*, present a statement of the circumstances, with proper evidence, to the Registrar of the College; and, if the application be sustained, he shall be enrolled in the usual manner. 5. Every Student shall pay annually, on his first Registration for the year, the sum of Five Shillings; and shall receive a Certificate of Registration duly attested by the Registrar.

Preliminary Examination in General Education.

1. The subjects of the Preliminary Examination are the same as those mentioned in the Regulations of the Royal College of Physicians of Edinburgh.[†] 2. Testimonials of proficiency granted by certain Educational Bodies will be accepted as sufficient evidence of General Education, and will exempt from the Preliminary Examination. 3. After September 1865, all students who intend becoming candidates for the Diplomas of the Colleges must have passed the complete Examination in General Education, and have had their names inscribed in the Register of Medical Students, *before* they commence their professional studies, 4. The Preliminary Examinations will take place on October 24th and November 7th, 1868, and on April 24th and July 24th 1869. 5. Students who intend to undergo the Preliminary Examination must give in their names, addresses, and places of birth to the officer of either College, not later than two days before the day of Examination, and must pay a fee of Ten Shillings, not to be returned in case of rejection; but they will be admissible to re-examination at a future period without paying another fee.

Professional Examination.

1. Candidates for the Double Qualification are subjected to two Professional Examinations. 2. The First Examination embraces Anatomy, Physiology, and Chemistry; and takes place not sooner than the end of the Second Winter Session. 3. Opportunities for both Examinations will be presented six times in each year. On each of these occasions, the Candidates write answers to the questions proposed. The Oral Examinations are conducted on the days immediately succeeding. 4. Candidates who desire to pass the First Professional Examination must apply to the inspector of Certificates on or before the Saturday preceding the day of Examination;[‡] and must produce tickets, and also certificates of attendance on the Course of Study which have reference to the subjects of that Examination. They must also produce evidence of having passed the Preliminary Examination. 5. The sum of £6 must be paid to the Inspector of Certificates for this Examination, not later than 10 A.M. of the day preceding it. This sum will be considered as paid to account of the entire fee of £16 payable for the two Diplomas. 6. In the case of a Candidate being unsuccessful at this Examinrtion £4 will be returned to him. 7. The Second Examination embraces Medicine, Surgery and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and does not take place before the termination of the Winter Session of the last year of study. 8. Applications for Examination must be made to the Inspector of Certificates not later than the Saturday previous to the day of Examination. 9. Every Candidate must produce to the Inspector—1. Satisfactory evidence of having attained the age of twenty-one years; 2. The tickets and certificates of his classes; 3. A certificate of his having passed the First Professional Examination; and 4. A tabular statement (for which a printed form will be furnished by the Inspector), exhibiting the full amount of his Professional Education, and distinguishing the Classes, Hospitals, and Dispensaries attended during each session of his studies. 10. The fee payable for this Examination, which is £10, must be lodged with the Inspector not later than 10 A.M. of the day preceding the Examination day. 11. On the production of the above documents, and after receiving the fees, the Inspector gives the Candidate a letter authorising the Examiners to take him on trial. 12. Unsuccessful Candidates at either the First or Second Examination are remitted to their studies for a period to be determined by the judgment of the Examiners, but not in any case less than three months. 13. In case of a Candidate being unsuccessful at the Second Examination, £8 will be returned to him. 14. Candidates who have passed the First Professional Examination of any of the Licensing Boards recognised by the Medical Act are admissible to the Second Professional Examination on producing certificates of the whole course of Study prescribed, and of having passed the Preliminary Examination, and on paying the fee of £16. In conducting the Examination, none of the subjects set down in § 7 will be omitted, even if some of them should have formed part of the First Examination by another Board. Unsuccessful Candidates under this regulation will receive back £14 of the £16 paid by them. 15. Recent Dissections and Anatomical Specimens, articles of the Materia Medica, Chemical Tests, the Microscope, Surgical Apparatus, and Pathological Specimens, are employed during the Examinations; and every Candidate is required to write out Formulæ of Prescription. The Examination may also consist, in part, of the actual examination of persons labouring under disease. 16. Candidates, on showing sufficient reason, may be admitted to a Special Examination, on other than the appointed days, on paying an extra fee of £5, which will not be returned in the event of their not being successful. 17. No Candidate is admissible to Examination who has been rejected by any other Licensing Board within the three months preceding his Examination.

FACULTY OF PHYSICIANS & SURGEONS OF GLASGOW.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR THE DIPLOMA.

THE Regulations respecting the Curriculum of Professional Study are similar to those of the Royal College of Surgeons of Edinburgh.

Preliminary Examinations in General Literature will commence in the Faculty Hall, during the Session 1868-9, on 23rd October, and 6th November, 1868; 30th April, and 23rd July, 1869.[*]

The Examination will be conducted chiefly by means of Written Papers. Those Gentlemen who pass will receive Certificates. Those who are unsuccessful may appear again without paying a second Fee. The Fee for the Examination and Certificate is Ten Shillings. Candidates are requested to give in their names to the Secretary at least two days before the Examination, and to give intimation of the optional subjects they select.

The First Professional Examinations take place on the Second Tuesday of every Month. The Second Professional Examinations take place, the written part on the Second Tuesday of every Month, and the oral part on the succeeding day.

The Fee for the Diploma is £10; viz., £4 for the First Examination, and £6 for the Second Examination.

The Examinations are conducted partly in writing and partly orally. Recent Dissections, Anatomical Specimens, Chemical Tests, Articles of the Materia Medica, the Microscope, Surgical Apparatus, and Pathological Specimens, are employed at the discretion of the Examiners. Candidates may also be called upon to examine actual cases of disease.

Candidates for the Diploma of the Faculty, who possess a Qualification to practise, or who have passed the Examination in Anatomy, Physiology, and Chemistry, before any of the Licensing Bodies enumerated in Schedule (A) of the Medical Act, 1858, on complying with the regulations in other respects, will be admitted to the Second Professional Examination. In such cases, the full Fee is exigible. In the case of unsuccessful Candidates, £2 of the Fee is retained.

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[*] The following order of study is recommended as a guide to the student, though not enjoined. *First Year*—Anatomy; Practical Anatomy; Chemistry; Practical or Analytical Chemistry; Hospital. *Second Year*—Anatomy; Practical Anatomy; Physiology; Surgery; Materia Medica (the last either in this or the third year); Hospital. *Third Year*—Practice of Medicine; Clinical Surgery; Practical Anatomy; Practical Pharmacy; Clinical Medicine; Pathological Anatomy; Hospital. *Fourth Year*—Surgery or Clinical Surgery; Midwifery and Diseases of Women and Children; Practice of Medicine or Clinical Medicine; Medical Jurisprudence; Practical Midwifery; Hospital.

[†] Prospectuses containing more specific information as to the Examination in General Education, may be had on application to the Officer of either College.

[‡] Candidates at a distance are requested to send their Certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters; as much disappointment has been occasioned by the discovery of defects in their Course of Study when it was too late to rectify them by the production of documents.

[*] The Examination will embrace the following subjects:—1. English Language, including Grammar and Composition. 2. Latin: Translation from one of the two following Books, at the option of the candidates; viz., the Fourth Book of Cæsar's *Commentaries, De Bello Gallico;* Virgil. *Æneid*, Lib. I; an Exercise in rendering English correctly into Latin, the Latin words being supplied. 3. Arithmetic: to Vulgar and Decimal Fractions inclusive. Algebra: to Simple Equations. 4. Geometry: First two Books of Euclid. 5. One of the following subjects at the option of the candidate. *a.* Natural Philosophy: Mechanics, Hydrostatics, and Pneumatics. *b.* Greek: Xenophon's *Anabasis*, Book II; or Homer's *Iliad*, Book VI. *c.* French: Voltaire, *Histoire de Charles XII. d.* German: First Two Books of Schiller's *Geschichte des dreissigjährigen Krieges.* In the Latin, Greek, French, and German Papers, questions on Grammar will be given.

A Candidate, on showing a sufficient reason, may be admitted to Examination on a day specially arranged, on paying an extra Fee of £3, which will be forfeited, in addition to the £2 ordinarily retained, in the event of his being remitted to his studies.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

DOUBLE QUALIFICATION IN MEDICINE AND IN SURGERY.

THE Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, conjointly grant their Diplomas after One Series of Examinations before a Board of Examiners in which each body is represented. The Regulations as to the Curriculum of Study are the same as those for the conjoined Examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh, with the addition of a Second Six Months' Course of Medicine, and the omission of the optional Course of Anatomy (6 months), and Practical Anatomy (18 months). The Fee for the two Diplomas granted conjointly is £16.

The First Examination for the Double Qualification will be held on the second Thursdays of January, April, May, July, August, and October. The Second Examination will be held, the written part on each of the above days, and the oral part on the succeeding day.

UNIVERSITIES OF EDINBURGH, GLASGOW, ABERDEEN, AND ST. ANDREW'S.

REGULATIONS RESPECTING DEGREES IN MEDICINE.

[THE Regulations of these Universities are nearly similar. We therefore give but one statement, noticing points of difference when necessary.]

Three Medical Degrees are conferred by each University; viz., Bachelor of Medicine (M.B.), Mastery in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of C.M. is not conferred on any person who does not also at the same time obtain the Degree of Bachelor of Medicine.

Preliminary Education.

The preliminary branches of extra-professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and Candidates must also pass a satisfactory Examination on at least two of the following subjects in addition: Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy.[*] The Examinations on both classes of subjects take place[†] before the Candidate has entered on his Medical Curriculum.[‡]

A Degree in Arts (not Honorary) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University specially recognised by the University Court, exempts from all Preliminary Examination; [and an Examination in Arts by any Corporate Body, whose Examination has been recognised by the General Medical Council, and also approved by the University Court, shall Exempt from Preliminary Examination in Arts on all subjects comprised in the said Examination.][*]

Degrees of Bachelor in Medicine and Master in Surgery.

Candidates for the Degree of Bachelor of Medicine or Master in Surgery must have been engaged in Medical and Surgical Study for four years—each *Annus Medicus* being constituted by at least two courses of not less than 100 Lectures each, or by one such course, and two courses of not less than 50 Lectures each; with the exception of the Clinical Courses, in which Lectures are to be given at least twice a week.

Every Candidate for the Degrees of M.B. and C.M. must give sufficient evidence by certificates—1. That he has studied each of the following departments of Medical Science; viz., Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases of Women and Children,[†] General Pathology,[‡] during Courses including not less than 100 Lectures; Practical Anatomy, a course of the same duration as the preceding; Practical Chemistry, Three Months; Practical Midwifery, Three Months at a Midwifery Hospital, or a Certificate of attendance on six cases from a Registered Medical Practitioner; Clinical Medicine and Clinical Surgery, each a Six Months' Course, or Two Courses of Three Months; Medical Jurisprudence, Botany, Natural History, including Zoology, Courses of not less than 50 Lectures. 2. That he has attended, for at least two years, the Medical and Surgical Practice of a General Hospital which accommodates not fewer than eighty patients. 3. That he has been engaged, for at least three months, by Apprenticeship or otherwise, in compounding and dispensing drugs at the Laboratory of a Hospital or Dispensary, Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.[§] 4. That he has attended, for at least six months, the out-practice of a Hospital or the practice of a Dispensary, or of a Registered Practitioner. Evidence of a practical knowledge of Vaccination is also required.

One of the four years of Medical and Surgical Study must be in the University granting the Degree sought. Another year must be either in the same University, or in some other University entitled to give the Degree of Doctor of Medicine.[‖] [At St. Andrew's, no one can be received as a Candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following Universities and Colleges; viz., the Universities of St. Andrew's, Glasgow, Aberdeen, Edinburgh, Oxford, or Cambridge; Trinity College, Dublin; and Queen's Colleges, Belfast, Cork, or Galway.] Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy; and one year's attendance, to the extent of four of the departments of medical study required, on the Lectures of Teachers of Medicine in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the Edinburgh University Court, may be reckoned as one of the four years.[¶] All Candidates not Students of the University of Edinburgh, availing themselves of the permission of attending the Lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of attendance, enrol their names in a book to be kept by the University for that purpose, paying a Fee of the same amount as the University Matriculation Fee.

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[*] The Universities of Glasgow, Aberdeen, and St. Andrew's, include Natural History.

[†] As far as possible.—*Glasgow, Aberdeen, and St. Andrew's.*

[‡] In Edinburgh, examinations on these subjects will be held on 20th and 21st of Oct. 1868, and 23rd and 24th March 1869. 1. *English*—A portion of an English author must be written to dictation; the grammatical construction of one or two sentences must be explained; the grammatical errors in a sentence ungrammatically composed, must be pointed out, and their nature explained; and the derivation and definition of a few English words in common use must be given (see Bain's *English Grammar*, and Angus on the *English Language*). 2. *Latin*—Eighth *Æneid* of Virgil, an easy passage from a Latin Prose Author, and a single passage of English (translated from a Latin Author) to be re-translated into Latin, the more difficult Latin words being given. 3. *Arithmetic*—The Common Rules including Decimals. 4. *Elements of Mathematics*—Euclid, Books I, II, and III; and the Rudiments of Algebra, including Simple Equations. A knowledge of Euclid alone will not be sufficient. 5. *Elements of Mechanics*—Elementary Mechanics and Hydrostatics.—At the same date, examinations will also take place in the additional subjects, as follows. 1. *Greek*—Third Book of Xenophon's *Anabasis*. 2. *French*—La Fontaine's *Fables*. 3. *German*—Schiller's *Wallenstein*. 4. *Higher Mathematics*—Euclid, Books I to VI: Algebra, Trigonometry, and Conic Sections. 5. *Natural Philosophy*—A general knowledge of the Elements of Natural Philosophy, as in Ganot's *Physics*, translated by Atkinson. 6. *Logic*—Whately's *Elements of Logic*, Introduction and Book I, along with "Introduction" and "Intellectual Powers of Man" (Part I) in Stewart's *Outlines*, will form the basis of the Examination. 7. *Moral Philosophy*—Springs of Action—Duties--Ethical Theories, as, *e.g.* in Stewart's *Outlines*, Part II, will form the basis of the Examination.

In Glasgow, examinations will take place in October 1868, and April 1869, as follows. *First or Elementary Part*, Exercises in all of which are required. *English*—Writing correctly a passage to dictation; Composition of a short Essay on a given theme; Questions in Grammar. *Latin*—Second Book of the *Æneid* of Virgil, and Second Book of Cæsar, *De Bello Gallico:* Translations of passages from authors not prescribed, and of English passages into Latin, the principal Latin words being supplied: Questions in Grammar and Construction. *Arithmetic*—the Common Rules, including Vulgar and Decimal Fractions. *Elements of Mathematics*—Euclid, Books I, II, and III: Algebra, as far as Simple Equations. *Elements of Mechanics*—Questions, for which Tomlinson's *Rudimentary Mechanics* may serve as a text-book. —*Second Part*, Exercises in two of which, to be selected by the candidate, are required. *Greek—Anabasis* of Xenophon, Book I, and the Gospel according to St. John; Translations of passages from Greek authors not prescribed, and of English passages into Greek—the principal Greek words supplied; Questions in Grammar. *French*—Voltaire's *Charles XII*; Translations and exercises as in Latin and Greek. *German*—Schiller's *William Tell:* Translations and exercises as in the other languages. *Mathematics*—Euclid, Books I to VI; Algebra, including Quadratic Equations, and the Rudiments of Trigonometry. *Natural Philosophy*—Such a knowledge of the principles as may be obtained from the Text-books of Golding Bird and Brooke, or Ganot. *Natural History*—Geology or Zoology. Text-books—Jukes, Lyell, Dana: R. Jones, Dallas, Milne-Edwards. *Logic*—Whateley's *Logic*, Books II and III. *Moral Philosophy*—The General Principles, as stated in Dugald Stewart on the Active Powers, or Dr. Fleming's Manual.

[*] This portion, enclosed in brackets, is in the Regulations of the University of Edinburgh alone.

[†] Two Courses of Midwifery, of Three Months each, are reckoned equivalent to a Six Months' Course, provided different departments of Obstetric Medicine be taught in each of the Courses.

[‡] Or a Three Months' Course of Lectures on Morbid Anatomy, together with a Supplemental Course of Practice of Medicine, or Clinical Medicine.

[§] In the Laboratory of an Hospital or Dispensary, of a Registered Medical Practitioner, or of a Member of the Pharmaceutical Society of Great Britain.—*Glasgow.*

[‖] Entitled to grant Degrees in Medicine.—*Glasgow.*

[¶] The other two years may be constituted by attendance upon courses in the great Hospital Medical Schools of London or Dublin; and, in default of such attendance, one of the four years may be constituted by attendance on any general Hospital containing not less than eighty beds, provided attendance has been given at the same time on a course of Practical Anatomy.—*Glasgow.*

Every Candidate must deliver, before the 31st day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—1. A Declaration, in his own handwriting, that he is 21 years of age, or that he will be so on or before the day of graduation; and that he will not be, on the day of graduation, under articles of Apprenticeship. 2. A Statement of his Studies, general and professional, accompanied with proper certificates.*

Each Candidate is examined, both in writing and *vivâ voce*—1, on Chemistry, Botany, and Natural History; 2, on Anatomy, Institutes of Medicine, Materia Medica, and Pathology; 3, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; 4, Clinically on Medicine and on Surgery in a Hospital. The Examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, and Natural History, are conducted, as far as possible, by demonstrations of objects placed before the Candidates. Students may be admitted to Examination on the first division of these subjects at the end of their second year, and on the second division at the end of their third year. The Examination on the third and fourth divisions cannot take place until the Candidate has completed his fourth *Annus Medicus*. Candidates may, if they choose, be admitted to Examination on the first two of these divisions at the end of their third year, or to the four Examinations at the end of the fourth year. If any Candidate be found unqualified, he cannot be again admitted to Examination unless he has studied during another year two of the prescribed subjects, either in the University or in some other School of Medicine.

[The above are the Regulations, regarding Professional Examination, of the University of Edinburgh. Those of the other three Universities differ somewhat from those of Edinburgh. They are as follows.

Every Candidate for the Degrees of Bachelor of Medicine and Mastery in Surgery shall undergo Three Professional Examinations, which will be conducted both in writing and *vivâ voce*, as follows. The First Examination (not to be taken before the end of the second year of study) to include Chemistry, Elementary Anatomy, and Botany. The Second Examination (not to be taken before the end of the third year) to include Advanced Anatomy, Physiology, and Zoology with Comparative Anatomy. The Third Examination (not to be taken before the end of the fourth year) to include Materia Medica, General Pathology, Surgery, Practice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine, and Clinical Surgery. The Examinations in Anatomy, Chemistry, Physiology, Botany, Zoology, and Materia Medica, will be conducted, as far as possible, by demonstrations of objects exhibited to the Candidates; and those on Medicine and Surgery, in part, by clinical demonstrations. Candidates may be admitted to Examination on the first two of these divisions at the end of the third year, or to the three Examinations at the end of their fourth year. If any Candidate, on Examination, be found unqualified, he shall not be again admitted to Examination unless he shall have completed another year of Medical Study, or such portion of another year as may be prescribed by the Examiners when he is found unqualified.]

Degree of Doctor of Medicine.

The Degree of Doctor of Medicine may be conferred on any Candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to his having received the Degree of Bachelor of Medicine, for at least two years in attendance on a Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice. The Candidate must be a Graduate in Arts, or must, before or at the time of his obtaining the Degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory Examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects; namely, French, German, Higher Mathematics, and Natural Philosophy.† He must submit to the Medical Faculty a Thesis composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the Degree of Bachelor of Medicine, which he may have made a subject of study after having received that Degree.

Candidates who commenced their Medical Studies in Edinburgh before 4th February, 1861, and in Aberdeen before November 1861, are entitled to be examined for the Degree of Doctor of Medicine, without previously taking that of Bachelor of Medicine, under the Regulations then in force in each University respectively.

The Degree of Doctor of Medicine may be conferred by the University of St. Andrew's on any Registered Medical Practitioner above the age of forty years, whose professional position and experience are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on Examination, satisfy the Medical Examiners of the sufficiency of the professional knowledge; provided always, that Degrees shall not be conferred under this section on a greater number than ten in any one year.

The Graduation Fees in each of the Universities are: For the Degree of M.B., three Examinations, each £5 : 5 = £15 : 15; for the Degree of C.M., £5 : 5 additional; for the Degree of M.D., £5 : 5 additional to that for M.B., together with Government Stamp Duty (£10).

The Fee for graduating under the old Regulations in Edinburgh is £25; at St. Andrew's, the Fee for the Degree of M.D. under the section relative to Registered Medical Practitioners is 50 Guineas. Stamp Duty is included in both cases.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RESPECTING THE LICENCE IN MEDICINE.

Candidates are required to give proof of having been engaged during four years in the Study of Medicine at a School or Schools recognised by the College, and must also produce evidence of having studied the following subjects; viz., Anatomy; Physiology, or Institutes of Medicine; Practical Anatomy; Chemistry; Practical Chemistry; Materia Medica and Botany; Medical Jurisprudence; Practice of Medicine and Pathology; Surgery; Midwifery; and of having attended a Medico-Chirurgical Hospital, in which regular courses of Clinical Lectures are delivered, together with Clinical Instruction, for twenty-seven months, or such Hospital for eighteen months, with nine months' attendance on a Medical Hospital, and similar courses of Clinical Lectures and Clinical Instruction; the attendance in each case being for not more than nine months in any year—namely, for six winter and three summer months; and the attendance on a Medico-Chirurgical Hospital and Medical Hospital not being taken out in the same year; and of having attended Practical Midwifery for six months at a recognised Lying-in Hospital, or produce evidence satisfactory to the College of having attended Practical Midwifery. Candidates who are not personally known to any Fellow of the College are required to transmit Testimonials of Character from Registered Physicians or Surgeons.

Examinations.—The Examination is divided into parts: First Part.—Anatomy, Physiology, Botany, and Chemistry. Second Part.—Materia Medica, Practice of Medicine, Medical Jurisprudence, and Midwifery. Students may be examined in the subjects of the first part at the termination of the first period of study, or in all the subjects of their education on the completion of their Medical Studies. The Examinations are partly written, and partly oral.

Candidates are required to have passed an Examination in General Education held by some one of the Qualifying Bodies, or by some one of the National Educational Bodies, approved by the College.

Candidates qualified as follows are required to undergo the second part of the Professional Examination only, and, if of above five years' standing, will be exempted from written examination; viz.; 1. Graduates in Medicine of an University in the United Kingdom, or of any Foreign University approved by the College. 2. Fellows, Members, or Licentiates of the Royal Colleges of Physicians of London or Edinburgh, who have been admitted upon Examination. 3. Graduates or Licentiates in Surgery.

If the President and Fellows be not satisfied with the answering of a Candidate, they may admit him to re-examination after the lapse of not less than two months. The Examinations are open to all Fellows and Licentiates of the College. They are held on the second Wednesday in each month, except August and September.

Every Candidate, before being admitted as a Licentiate, must subscribe a Declaration that he will observe the Statutes and Bye-Laws of the College; that he will not keep open shop for the sale of Medicines; that he will not endeavour to obtain practice, or to attract public notice, by any unworthy means; and that, should he violate any of these conditions, he thereby renders himself liable to censure, or to expulsion and surrendering of the Diploma.

Licence in Midwifery.—Special Examination is required. Candidates for the Licence in Midwifery, who are not Members of the College, will be admitted to examination on the following qualifications:—The Degree or Licence in Medicine or Surgery from any University or College of Physicians or Surgeons in the United Kingdom, together with a Certificate of having attended a six months' course of Lectures on Midwifery, with the attendance for six months at a recognised Lying-in Hospital, or evidence satisfactory to the College of having attended Practical Midwifery. Each Licentiate in Midwifery, if not already a Licentiate in Medicine, must subscribe a Declaration similar to that required of Licentiates in Medicine.

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* The Universities of Aberdeen and St. Andrew's require an Inaugural Dissertation to be presented previously to the final examination for M.B. In Edinburgh and Glasgow, no Thesis is now required until the candidate seeks the Degree of M.D.

† In Greek and in Logic or Moral Philosophy, and in any one of the other optional subjects in the examination in General Education.—*Glasgow.*

Fees for Licence and Examinations.—The Fee for the Licence is £15 : 15; viz., for Examination at the termination of the first period of Study, £5 : 5; for final Examination for the Licence, £10 : 10. Fee for the Midwifery Diploma, £3 : 3. Fee for the Licences in Medicine and Midwifery, if taken out within the interval of a month, £16.

The admission Fee may be returned in case of rejection, deducting £2 : 2 for the Licence in Medicine, and £1 : 1 for the Licence in Midwifery; and, in the case of a rejected Candidate afterwards presenting himself for Examination within twelve months, the sum previously deducted will be allowed in the Fee for such second Examination.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

REGULATIONS REGARDING DIPLOMAS.

Registered Pupils are admitted to the Preliminary Examination at any period previous to the Final Examination for Letters Testimonial. Students who are not Registered Pupils are also admitted to answer the Preliminary Examination upon payment of ten shillings; but they are not enrolled as Registered Pupils, or entitled to the privileges of such Pupils, until they have paid the full Registration Fee of five guineas.* No Student is admitted as a Candidate to the Quarterly Examination, or to the Final Examination for Letters Testimonial, until he has been enrolled as a Registered Pupil.

Letters Testimonial.

Every Registered Pupil shall be admitted to an Examination for Letters Testimonial if he shall have laid before the Council the following documents:—A receipt showing that he has lodged a sum of £21 in the Bank of Ireland to the credit of the President, and for the use of the College. Certificates that he has passed an examination in the Greek and Latin languages, and that he has been engaged in the study of his profession for not less than four years. Certificates of attendance on a Hospital recognised by the Council, where Clinical Instruction is given, during three years. Certificates of attendance on three courses of Lectures on Anatomy and Physiology; three courses of Lectures on the Theory and Practice of Surgery; and of the performance of three courses of Dissections, accompanied by Demonstrations; also certificates of attendance on two courses of Lectures on Chemistry; or one course of Lectures on General and one on Practical Chemistry; one course of Lectures each on Materia Medica, Practice of Medicine, Midwifery, Medical Jurisprudence, and Botany.

Candidates for Letters Testimonial are examined upon Anatomy, Physiology, the Theory and Practice of Medicine and Surgery, Materia Medica, and the forms of Prescription; and shall perform such Surgical Operations or Dissections, or explain such Anatomical and Pathological Preparations, as the Examiners may require. Candidates for Letters Testimonial or Fellowship of the College, being Licentiates of a College of Physicians or Graduates in Medicine of an University, are examined in General and Descriptive Anatomy, Physiology, the Theory and Practice of Surgery, and Operative Surgery; and, if recommended to the Council for admission as Licentiates, they shall be so admitted by the Letters Testimonial. The Examinations are both oral and written. Candidates, whose answering shall be found insufficient, will not be allowed to present themselves a second time until after six months from their first examination.

Examinations are also held quarterly, on the second Tuesday in February, May, August, and November, at which Candidates are divided into two Classes, Junior and Senior; the former being examined in elementary, the latter in practical subjects. The Fee for the Junior Examination is £5 : 5; for the Senior, £15 : 15; making, with the Preliminary Examination and Registration Fees, a total of £26 : 15 for Letters Testimonial.

Fellowship.

Every Registered Pupil or Licentiate may be admitted to examination for the Fellowship on producing a Certificate that he is twenty-five years of age, and that he is a Bachelor of Arts, or has been examined with a view to ascertain that he has obtained a liberal Preliminary Education: also a certificate, signed by two or more Fellows of the College, of good general conduct. He must have been engaged in the acquisition of Professional Knowledge not less than six years, (five years being required in the case of Bachelors of Arts) during three of which he must have studied in one or more of the Schools and Hospitals recognised by the Council. The other three years may have passed in any approved School. He must also have acted as House-Surgeon or Dresser in a recognised Hospital; and must have attended the Lectures required of candidates for Letters Testimonial, together with one course of Lectures on Comparative Anatomy, one on Botany, and one on Natural Philosophy. He must present a thesis on some Medical subject, or Clinical reports, with observations of six or more Medical or Surgical cases taken by himself.

Licentiates of the College, who may not be able to show that they have followed the course of study specified in the regulations, may, at the expiration of ten years from the date of their diploma, be admitted to the examination for the Fellowship, on producing satisfactory evidence that they have conducted themselves honourably in the practice of their profession.

Each Candidate for the Fellowship is examined on two days. The subjects of the First Examination are Anatomy and Physiology (Human and Comparative); those of the Second—Pathology, Therapeutics, the Theory and Practice of Medicine and Surgery, and such other branch of Medical Science as the Council may, from time to time, direct. The Examinations are both Oral and Written. The Candidates must perform Dissections and Operations on the dead body. Rejected Candidates cannot present themselves a second time until after one year from the first examination.

The Fee payable is £10 : 10 if the Candidate be a Licentiate, or £26 : 5 if he be a Registered Pupil; provided in either case he intends to reside beyond ten miles from Dublin. Should the candidate intend to reside in Dublin, or within ten miles thereof, he pays if a Licentiate, £31 : 10; if a Registered Pupil, £47 : 5. Fellows entering on the country list, who may subsequently settle as practitioners in Dublin, or within ten miles thereof, must pay £10 : 10 to the College.

Diploma in Midwifery.

Any Fellow or Licentiate of the College may be admitted to an examination for the Diploma in Midwifery upon producing:—*a.* A certificate of having attended one course of Lectures on Midwifery and Diseases of Women and Children, delivered in a recognised School of Medicine or Surgery. *b.* A certificate that he has attended the practice of a Lying-in Hospital or of a Dispensary for Lying-in Women and Children, recognised by the Council, for Six Months. *c.* A certificate that he has conducted thirty labour cases at least. Candidates for the Midwifery Diploma shall be publicly examined on the Organisation of the Female; the Growth and Peculiarities of the Fœtus; the Practice of Midwifery, and the Diseases of Women and Children.

A rejected candidate cannot again be admitted to an examination until three months shall have elapsed; and he must then produce satisfactory evidence of having been engaged in the study of Midwifery subsequently to such rejection.

APOTHECARIES' HALL OF IRELAND.

REGULATIONS REGARDING THE LICENCE TO PRACTISE.

EVERY Candidate for the Licence to practise is required to undergo a Preliminary and a Professional Education and Examination.* The Arts Examination will be held on the third Friday in January, April, July, and October, at 2 P.M. Answers in writing must be given to printed questions. Unsuccessful Candidates will be remitted to their studies for six months.—Certificates in Arts granted by any of the Bodies named in Schedule A of the Medical Act, or by any Educational Institution approved of by the Medical Council, will be recognised.

Professional Education and Examination.

Every Candidate for the Licence to practise must produce Certificates to the following effects: 1. Of having passed an Examination in Arts previously to entering on professional study. 2. Of being registered as a Student in Medicine by one of the Bodies named in Schedule A of the Medical Act. 3. Of being at least twenty-one years of age, and of good moral character. 4. Of Apprenticeship to a qualified Apothecary, or of having been engaged at practical Pharmacy with an Apothecary for a period of three years subsequent to having passed the Examination in Arts. 5. Of having spent four years in Professional Study. 6. Of having attended the following Courses; viz., Chemistry, Principles and Practice of Medicine, and Surgery, each during One Winter Session; Anatomy and Physiology, Demonstrations and Dissections, each during Two Winter Sessions; Botany and Natural History, Materia Medica and Therapeutics, and Forensic Medicine, each during One Summer Session; Practical Chemistry (in a recognised Laboratory), during Three Months; Midwifery and Diseases of Women and Children, during Six Months; Practical Midwifery at a recognised Hospital (attendance upon twenty cases); Instruction in the practice of Vaccination. 7. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures or Medicine, during Two Winter and Two Summer Sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during One Winter and One Summer Session.

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* Candidates may select, as the subject of Preliminary Examination, one Greek and one Latin work from the following course:—In Greek—The Gospel of St. John, the *Menippus* of Lucian, or the First Book of Xenophon's *Anabasis*. In Latin—The First and Second Books of the *Æneid* of Virgil, the *Jugurthine War* of Sallust, or the Third Book of Livy. Candidates will also be required to write English correctly from dictation, and to give evidence of proficiency in Arithmetic.

* The following are the subjects of Preliminary Examination:—*Compulsory.* 1. *English*, including Grammar, Composition, and the leading events of English History. 2. *Arithmetic*, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. *Geometry:* First Two Books of Euclid. 4. *Latin:* The *Catiline Wars* of Sallust, and the First Three Books of the *Æneid* of Virgil. 5. *Greek:* The Gospel of St. John, and the First Twenty *Dialogues* of Lucian, or the First Two Books of the *Iliad* of Homer. 6. *French: Telemachus* or *Charles XII.*—*Optional.* 1. *Natural Philosophy*, including Mechanics, Hydrostatics, and Pneumatics. 2. *Natural History:* The Classification and Elementary Structure of Vegetables and Animals.

The Examination for the Licence to practise is divided into two parts: The First Part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy. The Second—Medicine, Surgery, (Principles of) Pathology, Midwifery, Forensic Medicine, and Hygiene. The First Part may be undergone at the close of the second Winter Session; and the Second after the completion of his Studies at the termination of the Fourth Winter Session.

The Examination will be held quarterly, and will commence at 12 Noon, by means of printed or written questions.

Candidates who fail to pass the First Part of the Professional Examination will be remitted to their Studies for three months. Unsuccessful Candidates at the Pass Examination will not be re-admitted until after six months.

Doctors of Medicine of any of the Universities in the United Kingdom, or Surgeons of any of the Royal Colleges of Surgeons, whose qualifications as such appear in the *Medical Register*, and who, having first passed an Examination in Arts, have also served an Apprenticeship, or the required term of practical Pharmacy, to a qualified Apothecary, may obtain the Licence of the Hall by undergoing an Examination of one day—the former in Pharmacy, and the latter in Medicine and Pharmacy.

Candidates for the Certificate of Assistant to an Apothecary, in compounding and dispensing Medicines, must have completed at least three years of Apprenticeship with an Apothecary, or have a Certificate from an Apothecary of having been engaged at practical Pharmacy for three years together with a Certificate of good moral character. The Examination will be restricted to the *British Pharmacopœia* and to Pharmacy, scientific and practical, including the history and character of Medicines, their preparations, combination, and doses, and the translation of Latin Prescriptions.

UNIVERSITY OF DUBLIN.

DEGREES AND LICENCES IN MEDICINE.

THE degrees in Medicine and Surgery granted by the University are: 1, Bachelor of Medicine; 2, Doctor of Medicine; 3, Master in Surgery. It also grants Licences in Medicine and Surgery.

Bachelor in Medicine.

A Candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same commencement as that at which he receives his Degree of B.A., or at any subsequent commencement, provided the requisite Medical education shall have been completed. The medical education is of four years' duration, and comprises attendance on the following Lectures: *Winter Courses*—Anatomy; Practical Anatomy; Theoretical and Operative Surgery; Chemistry; Practice of Medicine; Midwifery. *Summer Course*—Botany; Institutes of Medicine; Materia Medica and Pharmacy; Medical Jurisprudence. *Term Courses*—Heat (Michaelmas); Electricity and Magnetism (Hilary); Comparative Anatomy (Trinity). Nine months' attendance on the Clinical Lectures of Sir Patrick Dun's Hospital. Nine months' additional attendance on the Clinical Lectures of any Hospital recognised by the Board.* Instruction in Practical Midwifery, including not less than six deliveries. Six months' Dissection, and Three Months' Laboratory Instructions in Chemistry. Any of the Winter or Summer Courses may be attended at any Medical School in Dublin recognised by the Provost and Senior Fellows* (and three of them, at the discretion of the Candidate, may be attended in the University of Edinburgh), provided the Candidate have kept an *Annus Medicus* in the University. A year's attendance in the School of Physic may be kept—1, by attending at least two, or not more than three, of the Winter Courses; 2, by attending one Winter and two Summer courses; 3, by nine months' attendance on Sir Patrick Dun's Hospital and Clinical Lectures; together with one of the preceding courses. The Fee for the *Liceat ad Examinandum*, £5; for the Degree of M.D., £11.

Doctor in Medicine.

A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the degree of M.B. for three years, and must perform exercises for the Degree before the Regius Professor of Physic, in accordance with the Rules and Statutes of the University. Total amount of Fees for this Degree, £13.

Master in Surgery.

The Degree of Master in Surgery can only be obtained by Students who are Bachelors of Arts, and who have completed the professional Curriculum, and passed the Examination required. The Curriculum comprises the following, in addition to the complete course for the M.B. Degree: Theoretical and Operative Surgery, one course; Dissection, two courses. Nine Months in Sir Patrick Dun's or other recognised Hospital, with Clinical Lectures. Of the Winter Courses not more than three can be attended during any one Session. Candidates are required to perform Surgical operations on the dead subject. Candidates for the Degree of Master in Surgery, who have already passed the Examination for the Degree of Bachelor in Medicine, will be examined in Anatomy and Surgery only. Fee for the *Liceat ad Examinandum*, £5; for the Degree of M.Ch., £11.

University Licences.

Candidates for the Licences in Medicine or Surgery must be matriculated in Medicine; must have completed four years in medical studies; and must pass an Examination in Arts unless they be Students in the Senior Freshman, or some higher class.†

The Medical Course and Examination for the Licence in Medicine is the same as for the Degree of M.B.

Candidates who are already Licentiates in Surgery of the Royal College of Surgeons in Ireland, or Members of the Royal College of Surgeons of England, on passing the Arts Examination, will be admitted to Examination for the Licence in Medicine. Such Candidates will be exempted from examination in Anatomy and Surgery; and Candidates who have also the Licence in Midwifery of the Irish College of Surgeons will be exempted from examination in Midwifery.

A Licentiate in Medicine, on completing his Course in Arts, and proceeding to the Degree of B.A., may become a Bachelor in Medicine, on paying the Degree fees, without further Examination in Medicine, provided he has attended Sir Patrick Dun's Hospital for nine months, and taken out a course of Institutes of Medicine. Fee for the *Liceat ad Examinandum*, £5; for the Licence in Medicine, £5.

The Surgical Course and Examination necessary for the Licence in Surgery, are the same as for the Degree of Master in Surgery. Fee for the *Liceat ad Examinandum*, £5; for the Licence in Surgery, £5.

Previous Medical Examination.

Candidates for Degrees and Licences in Medicine and Surgery are expected to pass two Examinations, the first at the close of the second year of Medical Study, and the other after the full Curriculum has been completed. The subjects at the Previous Examination are: Anatomy; Botany; Materia Medica and Pharmacy; Chemistry. Students who pass the previous Examination, and whose answering in any of the foregoing subjects satisfies the Examiners, are exempted from answering in such subject or subjects at the final Examination. Two Medical Scholarships, of £20 each for two years, are awarded to the best answerers at the previous Examination, on certain conditions.

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* The following Hospitals are recognised:—1. Sir Patrick Dun's School of Physic Hospital; 2. Meath Hospital; 3. Richmond, Whitworth, and Hardwicke Hospitals; 4. Dr. Steevens' Hospital; 5. Jervis Street Infirmary; 6. City of Dublin Hospital; 7. Mercer's Hospital; 8. St. Vincent's Hospital; 9. Adelaide Hospital; 10. Mater Misericordiæ Hospital.

* The Schools recognised are:—1. The School of the Royal College of Surgeons in Ireland; 2. The Carmichael School; 3. The School of Dr. Steevens' Hospital. 4. The St. Peter Street School; 5. The School of the Catholic University. The recognition is conditional on the Students being furnished with *bonâ fide* Certificates of regular attendance equivalent to that required by the University; *i.e.*, three-fourths of the entire Lectures in each course.

† The following are the subjects of examination. Homer's *Iliad*, Books I, II (omitting Catalogue of Ships), III; Lucian's *Dialogues* (Walker's edition); Xenophon's *Anabasis*, Books I, II, III; Virgil, *Æneid*, Books I, II, III; Sallust; Horace, *Satires*; Latin Prose Composition; English Prose Composition; English History; Modern Geography; Arithmetic; Algebra, to the end of Simple Equations; Euclid, Books I, II, III.

QUEEN'S UNIVERSITY IN IRELAND.

DEGREES OF DOCTOR OF MEDICINE AND MASTER IN SURGERY.

EACH Candidate for the Degree of Doctor in Medicine or Master in Surgery is required—1. To have passed in one of the Colleges of the Queen's University* the Entrance Examination in Arts, and to have been admitted a Matriculated Student of the University. 2. To have attended, in one of the Queen's Colleges, Lectures on one Modern Continental Language for six months, and Lectures on Natural Philosophy for six months. 3. To have also attended, in one of the Queen's Colleges, at least two of the courses of Lectures in the following lists. For the Second course of Anatomy and Physiology, and of Practical Anatomy, authenticated certificates will be received from the Professors or Lecturers in recognised Universities, Colleges, or Schools. 4. To pass two University Examinations—the First University Examination, and the Degree Examination.

The curriculum shall extend over at least four years, and shall be divided into Periods of at least two years each.

Candidates are recommended to pass the Matriculation Examination prior to entering on the second Period.

It is recommended that the first Period shall comprise attendance on the following courses of Lectures:—Chemistry; Botany with Herborisations, and Zoology; Anatomy and Physiology; Practical Anatomy; Materia Medica and Pharmacy; and that the second Period shall comprise attendance on Anatomy and Physiology (second course); Practical Anatomy (second course); Surgery; Midwifery; Medicine; and Medical Jurisprudence.

In addition to the above courses of Lectures, Candidates shall have attended, during either the first or second Period, a Modern Continental Language, and Experimental Physics (in one of the Colleges of the University). Also, during the first Period, Practical Chemistry (in a recognised Laboratory), and a Medico-Chirurgical Hospital containing at least sixty beds; together with the Clinical Lectures, at least two each week—a Winter Session of six months. And, during the second Period, Practical Midwifery—a certificate of having attended at a recognised Midwifery Hospital, with the Clinical Lectures therein delivered, for a period of three months; or of having attended a Midwifery Dispensary for the same period; or of having attended ten cases of Labour, under the superintendence of the Medical Officer of any Hospital or Dispensary where cases of Labour are treated; and Medico-Chirurgical Hospital (recognised by the Senate) containing at least sixty beds; together with the Clinical Lectures—eighteen months; including either three Winter Sessions of six months each, or two Winter Sessions of six months each, and two Summer Sessions of three months each.

Medical Examinations are held in June, and in September and October. Each Candidate for Examination in June must forward to the Secretary, on or before the 1st of June, or the 1st of September, notice of his intention to offer himself as a Candidate, along with his Certificates.

First University Examination in Medicine.

The First University Examination may be passed either in June or September. Students may present themselves for the First University Examination at the termination of the first period of the Curriculum, or at any subsequent period; but they are earnestly recommended not to put off undergoing this Examination until the time when they come forward for their Degree Examination. Before being admitted to Examination, each Candidate must produce satisfactory evidence of having completed the course recommended for study during the first Period of the Curriculum.

The First University Examination comprises the subjects recommended for study during the First Period of the Curriculum, along with which any Candidate may present himself for Examination in Experimental Physics and Modern Languages, if he have already attended, in one of the Queen's Colleges, the prescribed courses.

Competitors for Honours will be examined in all the subjects of the First University Examination, including Experimental Physics and Modern Languages. Two Exhibitions, one consisting of two instalments of £20 each, the other of two instalments of £15 each, will be awarded to the best answerers, if recommended by the Examiners as possessed of sufficient absolute merit. Candidates who postpone their First Medical Examination until they present themselves at the Degree Examination are not eligible for Honours with the First Examination.

Degree Examinations in Medicine.

Examinations for the Degrees of M.D. and M.Ch. will be held in June and September. The Fee for each Degree is Five Pounds.

Each Candidate must be recommended by the President of his College, and produce certificates—1. From the Secretary of the Queen's University, that he has passed the Previous Examination, unless the Candidate present himself for both Examinations simultaneously. 2. From the Council of his College, that he has passed a full Examination in the subjects of study prescribed in the entrance course of the Faculty of Arts, and has been admitted a Matriculated Student in the Faculty of Medicine. 3. That he has attended, in the Colleges of the Queen's University, two of the Medical Courses, Lectures on one Modern Language, and Lectures on Experimental Physics. 4. That he has completed all other prescribed courses.

The Examination for the Degree of M.D. comprises the subjects recommended for study during the second Period of Medical Education, along with experimental Physics and one Modern Language, unless an Examination in these subjects shall have been already passed at the First University Examination.

The Examination for the Degree of M.Ch. comprises, in addition, an Examination in Operative Surgery; except in the case of those candidates who obtained the Degree of M.D. in this University, before 1st January, 1865.

Candidates who take a First Class in Honours will receive a Medal and Prize; Candidates who take a Second Class will receive a Prize; Candidates who take a Third Class will receive a Certificate of Honour.

ARMY MEDICAL SERVICE.

EVERY Candidate desirous of presenting himself for admission to the Army Medical Service must be unmarried, and not under 21 or over 28 years of age. He must produce a certificate from the District Registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must also produce a certificate of moral character from the parochial minister, if possible. The Candidate must make a declaration that he labours under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer in any climate.* He must also attest his readiness to engage for general service, and to proceed on foreign service when required to do so. He must be registered under the Medical Act of 1858 as licensed to practise Medicine and Surgery in Great Britain or Ireland.

Candidates are examined by the Examining Board in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics, the Diseases of Women and Children, Chemistry and Pharmacy, and a practical knowledge of Drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of Surgical Apparatus, and the examination of Medical and Surgical patients at the bedside). The eligibility of each Candidate for the Army Medical Service will be determined by the result of the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany with special reference to Materia Medica, and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the Examination by Candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science. After passing this examination, every Candidate will be required to attend one entire Course of Practical Instruction at the Army Medical School, on—1, Hygiene; 2, Clinical and Military Medicine; 3, Clinical and Military Surgery; 4, Pathology of Diseases and Injuries incident to Military Service. At its conclusion, the Candidate will be required to pass an examination on the subjects taught in the School. If he give satisfactory evidence of being qualified for the practical duties of an Army Medical Officer, he will be eligible for a Commission as Assistant-Surgeon. During the period of his residence at the Army Medical School, each Candidate will receive an allowance of five shillings per diem with quarters, or seven shillings per diem without quarters, to cover all costs of maintenance; and he will be required to provide himself with uniform (viz., the Regulation undress uniform of an Assistant-Surgeon, but without the sword). All Candidates will be required to conform to such rules of discipline as the Senate may, from time to time, enact.

[*Continued on page* 288.]

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* Belfast, Cork, or Galway.

* His physical fitness will be determined by a Board of Medical Officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia would not be considered a disqualification, provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes existed. Every candidate must also be free from organic disease of other organs, and from constitutional weakness or other disability likely to unfit him for military service in any climate.

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1868-69.

For further particulars regarding each Hospital and Medical School, see p. 288.

LECTURES, ETC.	ST. BARTHOLOMEW'S HOSPITAL.	CHARING CROSS HOSPITAL.	ST. GEORGE'S HOSPITAL.	GUY'S HOSPITAL.	KINGS COLLEGE AND HOSPITAL.
WINTER SESSION.					
ANATOMY AND PHYSIOLOGY	Mr. Savory..M. Tu. Th. F. 9	Dr. Claye Shaw..M. Tu. Th F. 3.30	Dr. W. Ogle..Tu. Th., 3; S., 10	Dr. Pavy..M. W. F., 4.15	Dr. Beale..M. W. Th. F., 4
ANATOMY, DESCRIPTIVE AND SURGICAL	Mr. Holden and Mr. Callender..Tu. W. Th. F. 2·30	Mr. Barwell..M. W. F. 9: Tu. 4.30	Mr. Rouse..M. W. F., 3	Mr. Durham..Tu. W. Th F., 9	Mr. Partridge..daily, exc. M., 9
ANATOMICAL DEMONSTRATIONS	Mr. M. Baker, Mr. Langton. Daily, 10.15 to 2	Mr. Bellamy..daily, 10 to 1	Dr. Whipham, Mr. Christian and Dr. Byam	Mr. Bankart, Dr. Pye-Smith, Dr. J. Phillips, Mr. Howse Daily, 9 to 4	Mr. J. Wood
CHEMISTRY	Dr. Odling....M. W. F. 10	Mr. Heaton..M. W. F., 10	Dr. Noad..Tu. Th. S., 11.30	Dr. Taylor..Tu. Th. S., 11	Dr. Miller..M. W. Th. S., 10.15
MEDICINE	Dr. Black, Dr. Andrew. M. Tu. Th., 3.30	Dr. Salter..M. W. F., 2.30	Dr. Barclay..M. W. F., 9	Dr. O. Rees and Dr. Wilks M. W. F., 3	Dr. Johnson..Tu. 4 P.M.; Th. F., 5
SURGERY	Mr. Paget, Mr Coote..M., 2.30; W., 9; F., 3.30	Mr. Canton..Tu. Th. S., 9	Mr. Holmes..Tu. Th. S., 9	Mr. Birkett and Mr. C. Forster..Tu. Th., 3.30; S., 9.45	Sir W. Fergusson..M. T. W., 5
HOSPITAL PRACTICE:					
Physicians	Dr. Farre..Tu. 12; Th. S., 1	Dr. Salter 1 to 2.30 daily.	Dr. Fuller..Tu. S., 1	Dr. Owen Rees..M. Th. 1.30	Dr. Johnson..M. W. F., 1.30
	Dr. Black..M. Tu. Th., 1	Dr. Headland	Dr. Barclay..M. F., 1	Dr. Habershon..Tu. F., 1.30	Dr. Beale..Tu. Th. S., 2
	Dr. Edwards..M. W., 8.30: Th. S., 1.30	..	Dr. J. Ogle..M. F., 1	Dr. Wilks..M. Th., 1.30	Dr. Garrod..Tu. Th S., 1.30
	Dr. Harris..Tu. Th. S., 1.30	..	Dr. Wadham..Tu. S., 1	..	Dr. Guy
Obstetric Physicians ..	Dr. Greenhalgh..in-p. W.. 1.30; out-p. S., 9	Dr. Parson	Dr. J. Clarke..in-p. Tu. S., 1; out-p. Th., 12	Dr. Oldham..Tu. F., 1.30	Dr. Priestley..Tu. Th. S.. 1.30
Assistant-Physicians ..	Dr. Andrew..M. Th., 11	Dr. Pollock	Dr. Dickinson..Tu. S., 12	Dr. Braxton Hicks (*obs.*)..M. Th., 1.30; out-p., Th. S., 12	Dr. Tonge..Tu. Th. S. 1
	Dr. Southey..W. S., 11	Dr. Silver	Dr. W. Ogle..M. F., 12	Dr. Pavy..F., 12	Dr. Duffin..M. W. F., 1
	Dr. Church..F., 11	..	..	Dr. Moxon..M., 12	Dr. Playfair (*obs.*)..M. W. F., 12.30
	Dr. Gee..Tu., 11	..	..	Dr. Fagge..Tu. W., 12	..
Surgeons	Mr. Paget..Daily, exc. W., 1.30	Mr. Hancock	Mr. P. Hewett..M. F., 1	Mr. Cock..M. Th. S., 1.30	Sir W. Fergusson, Bart. Tu. Th. S., 1.30
	Mr. Coote..M. W. F. S., 1.30	Mr. Canton	Mr. Pollock..Tu. S., 1	Mr. Hilton..M. Th., 1.30	Mr. Partridge..M. W. F., 1.30
	Mr. Holden..Tu. F. S., 1.30	Mr. Hird (out.p.)	Mr. H. Lee..Tu. S., 1	Mr. Birkett..M. Th., 1.30	..
	Mr. Savory..Daily, 1.30	Mr. Barwell (out-p.)	Mr. Holmes..M. F., 1	Mr. Poland..W. S., 1.30	..
Assistant-Surgeons ..	Mr. Callender..W. S., 12	..	Mr. Brodhurst..Tu. S., 12	Mr. C. Forster..S., 12	Mr. Wood..Tu. Th. S., 1
	Mr. T. Smith..M. Th., 12	..	Mr. Rouse..M. F. 12	Mr. Bryant..M. Th,, 12	Mr. H. Smith..M. W. F., 1
	Mr. Willett..F., 12	..	..	Mr. Durham..W., 12	..
	Mr. Langton..Tu., 12	..	..	..	..
Ophthalmic Surgeons ..	Mr. Langton and Mr. Vernon..W. S., 12.30		Mr. H. Power..M. F., 9	Mr. Poland..W. S., 1.30: Mr. Bader..Tu. F , 12	Mr. Soelberg Wells..Tu. Th. S., 1
Dental Surgeon	Mr. Coleman..F., 9	Mr. Parkinson	Mr. Vasey..Tu. S., 9; Th., 1	Mr. J. Salter..Th., 12	Mr. Cartwright..Tu. F., 10
CLINICAL MEDICINE ..	The Physicians..weekly	The Physicians..daily; and Lectures thrice weekly	Dr. Fuller..M., 2 (Winter) Dr. Barclay..M., 2 (Summer)	Dr. Owen Rees, Dr. Habershon, Dr. Wilks..weekly (Winter); Dr. Pavy, Dr. Moxon, Dr. Fagge (Sum.)	Dr. Johnson..alt. M., 2 Dr. Beale..alt. Th., 2 Dr. Garrod..alt. Tu., 2
CLINICAL SURGERY	The Surgeons..weekly	The Surgeons.. daily; and Lectures thrice weekly	Mr. Hewett and Mr. Pollock. Tu., 2 (Winter) Mr. Holmes..Tu., 2 (Sum.)	Messrs. Cock, Hilton, Birkett, Poland .. weekly, (Win.); Messrs. C. Forster, Bryant. Durham (Sum)	Sir W. Fergusson..alt. Th. 2 Mr. Partridge..alt. F., 2 Mr. Wells (ophth.)..alt. M., 1
CLINICAL MIDWIFERY ..	Dr. Greenhalgh..weekly		Dr. J. Clarke..Th., 2 (Win.)	Dr. Oldham. Dr. Hicks (Win.)	Dr. Priestley..alt. Th., 3
OPERATIONS	Wed. and Sat., 1.30		Thursday, 1	Tuesday, 1.30	
SUMMER SESSION.					
MATERIA MEDICA	Dr. F. J. Farre..Tu. Th. S.. 10; W., 11	Dr. Headland..Tu. Th. S.. 12	Dr. Dickinson..M. W. F., 3	Dr. Habershon..Tu. Th.. F., 3	Dr. Garrod..Tu. W. Th. F., 8
BOTANY	Rev. G. Henslow..M. W. F., 10	Mr. W. J. Smith..M. W. F.. 10	Dr. Child..Tu. Th. S., 3	Mr. C. Johnson..Tu. Th. S.. 11.30	Mr. Bentley..M. Tu. Th. F., 12.15
MIDWIFERY	Dr. Greenhalgh..Tu. W. F. S., 8 30	Dr. Chowne and Dr. Parson. M. W. Th., 3	Dr. J. Clarke..M. W. F., 9	Dr. Braxton Hicks..Tu. W. Th. F., 8.45	Dr. Priestley..Tu. W. Th. F., 9
MEDICAL JURISPRUDENCE	Dr. R. Southey..M. Th. S., 9	Dr. Silver..M. W. F., 4	Dr. Wadham..Tu. Th. S., 9	Dr. Taylor..Tu. Th. S., 10	Dr. Guy..M. Tu. W. F., 3
COMPARATIVE ANATOMY ..	Dr. Church (Sum.)..Tu. Th., 11	Mr. Spencer (Summer)..Tu. Th. S., 4	Dr. Bright (Sum.)..M. F., 4.30	Dr. Pye-Smith (Summer) Tu. F.. 12 45	Mr. Rymer Jones..M. W. F., 4
HISTOLOGY	Mr. Savory: Mr. Vernon and Mr. Marsh, *Demonst.*	Dr. Claye Shaw (Summer)		Mr. Howse..Tu. W., (Win); M., 3.30 (Summer)	
PRACTICAL CHEMISTRY ..	Dr. Odling (Sum.).. Daily. exc. S., 10.45 to 1.30	Mr. C. W. Heaton (Sum.).. M. W. F., 11 to 1	Dr. Noad (Sum.)..daily, 10	Dr. Stevenson (Sum.)..M. W. F., 10 to 1	Mr. Bloxam..M. W. F., 10.15
PATHOLOGY AND MORBID ANATOMY	Dr. Church..12 30. According to opportunity	Dr. T. H. Green (Summer). Tu. Th., 11	Dr. J. Ogle (Winter)..Th., 3	Dr. Moxon..daily, 2.30 (Win.); S., 8 45 (Sum,)	
OPERATIVE SURGERY ..	Mr. M. Baker and Mr. Langton, Christmas vac. & Sum	Mr. Barwell (Summer)	Mr. Rouse (Summer)	Mr. Bryant (Sum.)..W., 3	
OPHTHALMIC SURGERY ..	Mr. Langton and Mr. Vernon..W. S., 12.30	Mr. Hancock (Charing Cross Ophthalmic Hospital)	Mr. H. Power (Win.)..W., 10	Mr. Poland and Mr. Bader. M. 8.45 (Summer)	Mr. Soelberg Wells (Sum.) M. Tu. W. Th., 9
DENTAL SURGERY	Mr. Coleman..Jan. Feb. Mar., S., 10	Mr. Parkinson (Summer)	Mr. Vasey (Summer) Tu., 10		Mr. Cartwright (Summer). Tu. F., 9
DISEASES OF SKIN	Dr. Andrew and Dr. Southey. Th. S., 12.30	Dr. Tilbury Fox (Summer) Tu., 2.30	Dr. Barclay (Sum.) Th., 2.30	Dr. Fagge..Tu., 12 (Win.)	Dr. Duffin..F.
VACCINATION	Dr. Church and Dr. Gee..W.	Mr. Marson	Obstetric Assistant..Th., 10	Dr. Braxton Hicks	Mr. R. W. Dunn..M., 10.30
MISCELLANEOUS	*Diseases of the Ear:* Mr. T. Smith..M., 1.30 *Orthopædic Surgery:* Mr. Willett..F., 1.30 *Ophthalmosc. Demonst.:* Th., 2 to 4	*Clinical Demonstrations:* Dr. Pollock (Sum.)..Tu., 4	*Orthopædic Surgery:* Mr. Brodhurst (Sum.) Tu., 10 *Psychological Medicine:* Dr. Blandford (Sum.) W., 3	*Experimental Philosophy:* Dr. Stevenson and Mr. Davies-Colley (Win.)..W. 12 *Operations on Eye:* Mon. Thurs., 1.30 *Aural Surgery:* Mr. Hinton (out-p.)..Tu., 12	*Diseases of Throat, and Laryngoscope:* Dr. Johnson..W. *Chaplain's Lecture:* F., 10.15 *Chapel:* Daily, 10 *Principal's Lecture:* W. F., 11.15 *Tutor's Class:* Winter, M. W. F., 5; Summer, daily, exc. S., 9

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1868-69.

For further particulars regarding each Hospital and Medical School, see p. 288.

LONDON HOSPITAL.	ST. MARY'S HOSPITAL.	MIDDLESEX HOSPITAL.	ST. THOMAS'S HOSPITAL.	UNIVERSITY COLLEGE AND HOSPITAL.	WESTMINSTER HOSPITAL.
Dr. H. Jackson and Dr. M Mackenzie..M. W. Th., 4	Dr. Broadbent and Dr. Lawson..M. Tu. Th. F., 9	Dr. J. B. Sanderson and Mr. Hulke..M. W. F., 4	Dr. Bristowe and Mr. Ord. M. W. F., 4	Dr. Sharpey..daily, exc. S., 10	Dr. Maclure..M. F. 3; W., 4
Mr. Rivington..M. Tu. Th. F., 3	Mr. Gascoyen and Mr. Norton..M. Tu. Th. F., 2.45	Dr. R. Liveing..daily; exc. S., 10	Mr. Sydney Jones..M. F. S., 1; Th., 3	Mr. Ellis..daily, 12	Mr. Bruce..M. Tu. Th. F., 9.15
Mr. Rivington, Mr. Adams. Mr. Tay..M. Tu. Th. F.. 10 to 3	Mr. Norton and Mr. A. J. Wall..daily	Dr. R. Liveing and Mr. Reeves..daily, 8 to 5	Mr. Rainey, Mr. Croft, Mr. Wagstaffe..daily, 9 to 3	Mr. Ellis	Mr. Pearse..daily, 10 to 1
Dr. Letheby and Dr. Tidy. M. W. F., 10.30	Dr. W. Russell..M. Tu. Th. F., 10.15	Mr. Taylor and Mr. Heisch M. W. F. S., 11	Dr. Bernays..Tu. Th. S., 11	Dr. Williamson..daily, exc. S., 11	Dr. Dupré..Tu. Th., 3 P.M.; F. 10.30
Dr. H. Davies, Dr. A. Clark. Dr. Ramskill..W. Th., 9; F., 4	Dr. Chambers and Dr. H. Jones..M. W. Th., 4	Dr. Murchison..Tu. Th. S., 9	Dr. Barker and Dr. Peacock. M. Th., 2; W. 12.30	Dr. Reynolds..daily, exc. M., 9	Dr. Basham..M. Th. F., 4
Mr. Hutchinson..Tu. F. S., 9	Mr. S. Smith and Mr. J. Lane. Tu. F., 4 P.M.; W., 5	Mr. Shaw and Mr. De Morgan..M. W. F., 9	Mr. Solly and Mr. Le Gros Clark..Tu. W. F., 3	Mr. Marshall..Tu. W. F., 4	Mr. Holthouse .. Tu. W. Th., 3
Dr. Davies..Tu. F., 9	Dr. Sibson..M. Th., 1.15	Dr. Goodfellow..M. W. F.. 1.30	Dr. R. Bennett..M. Th., 8.45	Sir W. Jenner, Bart.	Dr. Basham..M. Th., 1.30
Dr. A. Clark..M. Th., 1	Dr. H. Jones..W. S., 1.15	Dr. H. Thompson..Tu. Th. S., 1	Dr. Goolden..W. S., 9.30	Dr. Reynolds Dr. Harley	Dr. Fincham..W. S., 1.30
Dr. Ramskill..W. S., 1	Dr. Sieveking..Tu. F., 1.15	Dr. Murchison..M. W. F., 1	Dr. Peacock..Tu. F., 9	Dr. Wilson Fox	Dr. Radcliffe..Tu. F., 1.30
..	..	..	Dr. Bristowe..Tu. F., 9.30	Dr. Ringer	..
Dr. Head..W. S., 1; Dr. Palfrey (asst.) out-p., W.S., 1	Dr. Tyler Smith..Tu. S.. 1.30	Dr. H. Davis (in-p.)..Tu. F.. 1.30 P.M.; (out-p.) W. S., 1.30	Dr. Barnes..W. S., 9.15; (out-p.)..F., 1	Dr. Graily Hewitt	Dr. F. Bird..Tu. F., 3
Dr. Down, Tu. F., 1	Dr. Broadbent..M. Th., 1	Dr. Greenhow..F., 8.30	Dr. Gervis (obst.)... S., 1 Dr. Clapton..M. Tu. Th. S., 12.30	Dr. C. Bastian	Dr. Anstie..M. Th., 1
Dr. H. Jackson..M., 1	Dr. Cheadle..Tu. F., 1	Dr. J. B. Sanderson..M., 3		..	Dr. Gibb..Tu. Fr., 1
Dr. M. Mackenzie..W. S., 1	Dr. Lawson..W. S., 1	Dr. R. Liveing..Tu., 8.30	..	..	Dr. Sturges..W. S., 1
Dr. Sutton..Th., 1	..	..	..	..	..
Mr. Adams..W. S., 1.	Mr. Lane..Tu. F., 1.15	Mr. Shaw..Tu. F., 1	Mr. Solly..Tu. F., 9	Mr. Erichsen	Mr. Holt..M. Th., 1.30
Mr. Curling..Tu. F., 1	Mr. S. Smith..M. Th., 1.15	Mr. De Morgan..M. Th., 1	Mr. Le Gros Clark..M. Th., 9.30	Mr. Marshall	Mr. Brooke..Tu. F., 1.30
Mr. Hutchinson..M. Th., 1	Mr. Walton..W. S., 1.15	Mr. Moore..M. Th., 1	Mr. Simon..W. S., 9.30	Sir H. Thompson	Mr. Holthouse..W. S., 1.30
..	Mr. J. R. Lane (out-p.) Tu. S., 1	Mr. Nunn..Tu. F., 1	..	..	..
Mr. Maunder..Tu. F., 1	Mr. Gascoyen..M. Th., 1	Mr. Hulke..M. F., 1	Mr. S. Jones (in-p.)..W. S., 9; (out-p.)..Tu. Th., 12.30	Mr. Berkeley Hill	Mr. Hillman..M. Th., 1
Mr. Couper..W. S., 1	Mr. A. J. Norton..W. S., 1	Mr. Lawson..Th. S., 1	Mr. Croft..M. F., 12.30	Mr. C. Heath	Mr. Mason..Tu. F., 1
Mr. Little..M. Th., 1	..	..	..	..	Mr. Bruce..W. S., 1
Mr. Rivington	..	..	..	..	..
Mr. Hutchinson and Mr. Couper (out-p.)..W. S., 8.30	Mr. Ernest Hart..W. S., 1.30	Mr. Hulke (out-p.)..Tu. F., 8.30;)in-p.)..Tu. F., 1.30	Mr. S. Jones (out-p.)..W., 9 Mr. Croft (out-p.)..S., 9	Mr. Wharton Jones and Mr. Streatfeild	
Mr. Barrett..Tu., 10	Mr. Sercombe..Th., 9.30; Mr. H. Hayward..Tu. S., 9.30	Mr. Tomes and Mr. Turner. Daily, 9	Mr. Elliott	Mr. Ibbetson	Mr. Walker..W. S., 9.15
The Physicians	Dr. Sibson..M., after visit Dr. H. Jones..alt. S., after visit Dr. Sieveking..alt. F., after visit	The Physicians..F. 3	Dr. Bennett and Dr. Goolden..after visit, Winter Dr. Peacock and Dr. Bristowe..after visit, Summer	Sir W. Jenner & Dr. Reynolds fortnightly or oftener Dr. W. Fox (Holme Professor..twice weekly	The Physicians..weekly
The Surgeons	Mr. Lane..Tu., after visit Mr. S. Smith..alt. Th., after visit Mr. H. Walton..alt. S., after visit	The Surgeons..M., 3	The Surgeons..after or during visits	Mr. Marshall and Sir H. Thompson .. fortnightly or oftener Mr. Erichsen (Holme Prof.) twice wkly.	The Surgeons..weekly
Dr. Head		Dr. Hall Davis..Tu., 10	Dr. Barnes..M., 3	Dr. G. Hewitt..fortnightly	
Wednesday, 2	Wednesday, 1.30	Wednesday, 1	Wed., 1 P.M.; Sat. 9.30		
Dr. Down..Tu. Th. F., 4	Dr. Sieveking..Tu. W. Th. F., 8 A.M.	Dr. H. Thompson..M. W. F., 9	Dr. Clapton..Tu. Th. F., 2	Dr. Ringer..daily, exc. S., 12	Dr. Anstie..M. Th. F., 3
Dr. Silver..M. W. F., 10	Dr. Trimen..M. W. F., 12	Dr. Cobbold..M. W. F., 4	Dr. J. W. Hicks..M. W. Th., 12	Mr. Oliver..daily, exc. S., 4	Mr. Bennett..M. W. F., 9.30
Dr. Head..daily, exc. S., 3	Dr. Tyler Smith..daily, exc. S., 9	Dr. Hall Davis..M. W. F.. 10	Dr. Barnes..M. Tu. Th. F., 3	Dr. Graily Hewitt..M. Tu. Th. F., 9	Dr. F. Bird..Tu. Th. F., 4
Mr. Rodgers and Dr. P James..daily, exc. S., 10.15	Dr. Randall..M. Tu. Th., 10	Dr. Greenhow..Tu. Th. S., 9	Dr. Stone and Dr. Gervis. Tu. F., 12; S., 8 A.M.	Dr. G. Harley..Tu. W. Th. F., 10	Dr. Gibb and Dr. Sturges. Tu. W. F., 3
Dr. Fenwick (Sum.)..W., 4	Mr. St. G. Mivart (Summer) W. F., 10	Dr. Cobbold (Summer)..Tu Th., 4	Mr. Ord (Sum.)..Tu. Th., 1	Dr. Grant (Win.) .. daily. exc. S., 3	Vacant
Dr. H. Jackson and Dr. Mackenzie (Summer)	Dr. Lawson (Win.)..W. S., 12	Dr. Cayley (Summer)..Tu. Th., 4	Mr. Rainey (Winter)..Tu., 12.30	Dr. M. Foster..S., 9.30 to 12	
Dr. Letheby and Dr. Tidy. M. Th. S., 9	Dr. Russell	Mr. Taylor and Mr. Heisch. M. W. F., 11	Dr. Bernays..Tu. Th., 10 to 12; S., 10 to 1	Dr. Williamson (Sum.) elem., Tu. W. Th. F., 11; sen., M., 10	Dr. Dupré (Summer)..Tu. Th., 10.30
Dr. Sutton (Summer)	Dr. F. Payne (Summer)..Tu. F., 11	Mr. Sibley and Dr. Cayley. (Win.)..Tu. Th., 4	Mr. Simon .. 11 A.M.; Dr. Lees, Demonst...9. 30	Dr. Bastian (Summer)..Tu. Th. F., 4	Dr. Cavafy
Mr. Maunder (Summer)	Mr. Gascoyen	Mr. Nunn (Winter)..S		Mr. Heath (Sum.)..daily, 3	Mr. Mason (bandaging, etc.—Summer)..Tu. Th., 9
Mr. Hutchinson (June) Tu, F., 8 A.M	Mr. Ernest Hart (Summer) Tu. 2.45	Mr. Hulke (clin.)..alt. Tu., 3	Mr. S. Jones (Sum.)..M. F., 1	Mr. W. Jones (Sum.)..Tu. Th., 1; clin. lect. alt. weeks	
Mr. Barrett (Winter), 5	Mr. Sercombe (Win.)..S., 9		Mr. Elliott..Tu. F., 11	Mr. Ibbetson (Winter)..Tu. Th., 5; clin..W., 10	Mr. J. Walker, Oct., Nov., Dec...W,. 9.30
Dr. Sutton and Mr. Hutchinson..W., 8.30	Clinical Demonstrations.		Dr. Bristowe, W., 1	Dr. Hillier..S., 9; clinical lect., S., 4	
Obst. Phys. & Res. Accou.	Mr. Gerrans	Mr. W. Pearse	Dr. Gervis..W., 12.30	Dr. G. L. Cooper or Mr. W. Pearse	Mr. W. Pearse
Diseases of Throat, and Laryngoscope: Dr. M. Mackenzie (Sum.) *Aural Surgery:* Mr. Rivington (out-p.), S., 8.30 *Dental Operations:* Mr. Barrett..Tu., 10	*Diseases of Throat:* Clinical Demonstrations *Aural Surgery* (clinical): Mr. E. Hart *Mental Diseases.* *Urology.* *Dental Operations:* Tu. Th. S., 9.30	*Cancer Department* (out-p.) Th., 1.30 *Practical Pharmacy:* Dr. A. Stephen	*Pathological Chemistry:* Dr Thudichum (Win.) .. Tu. Th., 4	*Bandaging:* Mr. B. Hill.. *Mental Diseases:* Dr. Sankey (Sum.)..Tu. W. Th., 11 Feb., Mar.. April *Hygiene and Public Health.* (Summer) *Ophthalmic Demonstrations:* Mr. Streatfeild..evening	*Natural Philosophy:* Mr. Brooke (Sum.)..Tu., 3

GUIDE TO HOSPITALS AND MEDICAL SCHOOLS IN THE PROVINCES: 1868-69.

For further Particulars regarding each Hospital and Medical School, see page 293.

Lectures, etc.	Birmingham Queen's College. (*a*).	Bristol Medical School.	Hull and East Riding School of Medicine.	Leeds School of Medicine (*g*).	Liverpool Royal Infirmary School of Medicine (*i*).	Manchester Royal School of Medicine (*l*).	Newcastle College of Medicine (*n*).	Sheffield Medical School (*p*).
WINTER SESSION. Anatomy and Physiology	Dr. Norris and Mr. T. H. Bartleet	Dr. Fripp and Dr. Beddoes..M. W. F. S.,9.15	Mr. R. M. Craven and Mr. Rudd....Daily, 8 A.M.	Mr. Hall and Mr. Jessop M. W. 10, Th. 6	Dr. Waters .. M. W. F., 9.15	Mr. W. Smith .. Tu. W. Th., 12	Dr. W. Murray.. Twice weekly, 8.45 A.M.	Mr. T. Leeds..Tu. F., 6
Anatomy, Descriptive and Surgical	Mr. C. J. Bracey	Mr. F. P. Lansdown and Mr. Tibbits..M. W. F. S., 10.15	Mr. Nicholson..Daily, 5	Mr. Seaton, Dr. R. T. Land, and Mr. J. A. Nunneley.. T. Th. F. S., 10	Mr. Harrison..M. 3, Tu. Th. S., 9	Mr. Lund .. Tu. W. Th. F., 8.45	Dr. Nesham, Mr. L. Armstrong, and Mr. J. Russell....Four days weekly, 8.45 A.M.	Mr. Skinner and Mr. W. J. Le Tall..Daily, 5
Anatomical Demonstrations	Mr. J. Hinds and Mr. Thomas	Mr. Tibbits, Mr. Wintle, and Mr. Ludlow	Mr. Nicholson and Mr. Craven	Mr. Seaton, Dr. Land, and Mr. J. Nunneley ..Daily	Dr. F. T. Roberts and Dr. Glynn.. Daily, 11 to 4	Mr. S. M. Bradley.... Daily	Dr. Nesham and Mr. L. Armstrong.... Daily, from 10 to 4	Mr. W. Skinner, Mr. A. Jackson, and Mr. Woolhouse
Chemistry	Dr. Hill	Mr. Coomber.. M. Tu. W. Th., 8.15	Mr. Walton..Tu. W. Th. F., 8 P.M.	Mr. J. C. Wilson..Daily (exc. S.), 11	Mr. J. C. Brown..M. Tu. Th. F., 10.15	Mr. D. Stone.... W. F. 1, Th. 11	Mr. Freire-Marreco.... Four days a week, 9.45	Mr. Allen.... M. W. F., 11.30
Medicine	Dr. Russell and Dr. Foster	Dr. Brittan and Dr. Martyn.... M. W. F., 8.15	Dr. Elliott..Daily, 3	Dr. Chadwick, Dr. Heaton, and Dr. Allbutt.. M. T. W. Th., 5	Dr. Cameron....M. Tu. Th. F., 5	Dr. Roberts and Dr. Morgan..M. Tu. Th., 1	Dr. Charlton and Dr. Embleton..M. W. F., 5	Dr. Frank-Smith .. Tu. Th. S., 4
Surgery	Mr. Pemberton and Mr. F. Jordan	Mr. Coe and Mr. T. E. Clark.... Tu. Th. S., 8.15 A.M.	Dr. K. King..Tu. Th. S., 4	Mr. S. Hey, Mr. Wheelhouse, and Mr. Teale ..M. W. F., 6	Mr. Bickersteth.... Tu. Th. F., 6.30	Mr. G. Southam.... M. Tu. Th., 2	Dr. Heath.. M. W. F., 6	Mr. W. F. Favell and Mr. Parker....M. W. F., 8 P.M.
Hospital Practice	Queen's Hospital (*b*) General Hospital (*c*)	Royal Infirmary (*d*), General Hospital (*e*), daily, 11.30 to 2	Hull General Infirmary (*f*).	Leeds General Infirmary (*h*).	Liverpool Royal Infirmary (*k*).	Manchester Royal Infirmary (*m*)..Daily, 10 to 12	Newcastle Infirmary (*o*).	Sheffield General Infirmary (*q*)
SUMMER SESSION. Materia Medica	Mr. Wilders and Mr. Mackey	Dr. Burder..Daily (exc. S.) 9	Mr. Holden and Mr Henson..Daily, 8 A.M	Dr. Eddison..M. Tu. W. Th., 3	Dr. J. B. Nevins.. Daily (exc. S.) 8 A.M.	Mr. Somers..Tu. W., 12, F., 12.30	Dr. Humble..Daily, 4.45	Dr. Young .. M. W. F., 8 A.M.
Midwifery, etc	Mr. Clay and Mr. Bassett	Dr. Swayne..Daily (exc. S.) 8	Mr. H. Gibson..Daily, 7 A.M.	Mr. W. N. Price and Mr. W. Hall.. M. Tu. Th. F., 4	Mr. Steele .. Tu. Th. S., 9; Dr. Gee.. W. S., 10	Dr. Thorburn .. M. W. Th. F., 9	Dr. Gibson.. Daily, 8.30 A.M.	Dr. Keeling and Dr. Hime..M. W. F., 4
Botany	Dr. Hinds	Mr. Leipner..Daily (exc. S.) 3.30	Mr. Niven..M. W. F. S., 3	Mr. Atkinson....Tu. W. F., 10	Dr. Roberts..M. W. F., 9.15	Mr. Grindon....Tu. W. Th., 10	Mr. Thornhill and Dr. Arnison....M. W. Th. F., 3.45	Mr. Birks....M. Tu. F., 6.30
Medical Jurisprudence	Mr. Swain and Dr. Hill	Dr. Marshall .... Daily (exc. S.) 9	Dr. Munroe.. M. W. F. S., 3	Mr. Scattergood .... M. W. F., 12	Dr. E. Whittle and Mr. Brown..M. W. F., 4	Mr. G. M. Harrison.... M. W. 1; F., 1.30	Dr. Donkin.... M. Tu. Th. F., 11	Mr. A. Jackson and Mr. Baker..Tu. Th., 4
Practical Chemistry	Mr. Anderson	Mr. Coomber .... Daily (exc. S.) 8	Mr. Walton	Mr. J. C. Wilson....Tu. F., 11 to 12.30	Mr. Brown.. M. Tu. F., 10.15	Mr. D. Stone.. Tu., 11; Th., 1	Mr. Freire-Marreco .... Daily, 10 to 5	Mr. Allen
Clinical Medicine	Physicians of Hospitals (*b, c*).	Physicians of Infirmary and Hospital, weekly (*d, e*)	Sir H. Cooper, Dr. Daly, and Dr. Elliott .... Twice weekly	Physicians of Infirmary (*g*)..F., 5	Physicians Royal Infirmary (*k*)	Physicians Royal Infirmary (*m*)..W. 11	Physicians of Infirmary (*o*)	Physicians of Infirmary (*q*)
Clinical Surgery	Surgeons of Hospitals (*b, c*).	Surgeons of Infirmary and Hospital, weekly (*e*)	Dr. Lunn, Mr. Craven, and Dr. King.. Twice weekly.	Surgeons of Infirmary (*g*) ..Tu., 6	Surgeons Royal Infirmary (*k*)	Surgeons Royal Infirmary (*m*)..Tu. 11	Surgeons of Infirmary (*o*)	Surgeons of Infirmary (*q*)

(*a*) ADDITIONAL COURSES.—*Diseases of Women and Children*, Mr. S. Berry and Dr. R. C. R. Jordan. *Ophthalmic Surgery*, Mr. J. V. Solomon. *Comparative Anatomy*, Dr. Savage. *Dental Surgery*, Mr. Howkins.

(*b*) *Physicians*, Dr. Evans, Dr. Bell Fletcher, Dr. Russell, Dr. Wade. *Surgeons*, Mr. Crompton, Mr. A. Baker, Mr. O. Pemberton, Mr. T. H. Bartleet.

(*c*) *Physicians*, Dr. Fleming, Dr. Foster. *Surgeons*, Mr. West, Mr. Gamgee, Mr. F. Jordan, Mr. J. St. S. Wilders. *Surgeon-Accoucheurs*, Dr. Suckling, Dr. Earle. *Dental Surgeon*, Mr. S. A. Parker.

(*d*) *Physicians*, Dr. Brittan, Dr. Fairbrother. Dr. E. L. Fox, Dr. Beddoe. *Surgeons*, Mr. Prichard, Mr. Bernard, Mr. C. Leonard, Mr. T. E. Clark, Mr. Tibbits.

(*e*) *Physicians*, Dr. Martyn, Dr. Burder, Dr. Fripp. *Surgeons*, Mr. Coe, Mr. F. P. Lansdown, Dr. Marshall, Mr. Atchley. *Physician-Accoucheur*, Dr. Swayne.

(*f*) *Physicians*, Sir H. Cooper, Dr. Daly. *Surgeons*, Dr. W. J. Lunn, Mr. R. M. Craven, Dr. K. King.

(*g*) ADDITIONAL.—*Comparative Anatomy*, Mr. Wheelhouse and Dr. Allbutt (summer), W. S., 4. *Medical Clinical Class*, every Tu., 11 to 12.30, both sessions. *Operative Surgery*, The Surgeons. *Demonstrations of Skin-Diseases*, Dr. Allbutt. *Ophthalmoscopic Demonstrations*, Mr. T. P. Teale.

(*h*) *Physicians*, Dr. Chadwick, Dr. Heaton, Dr. Allbutt. *Surgeons*, Mr. S. Hey, Mr. T. Nunneley, Mr. Wheelhouse, Mr. T. P. Teale.

(*i*) ADDITIONAL COURSES.—*Ophthalmic Medicine and Surgery*, Dr. Hibbert Taylor, Tu. F., 2 (summer). *Pathological Anatomy*, Dr. Rawdon, twice weekly in summer. *Comparative Anatomy and Zoology*, Dr. Davidson, twice weekly in summer. *Dental Department* (summer): *Surgery*, Mr. Snape, Tu., 9; *Mechanics*, Mr. Stewart, F., 9; *Anatomy and Physiology*, Dr. Davidson; *Metallurgy*, Mr. Brown.

(*k*) *Physicians*, Dr. Vose (W. S., 12.15), Dr. Turnbull (M. Th. 12.15), Dr. Inman (Tu. F., 12). *Surgeons*, Mr. Stubbs (Tu., 12.30; F., 1), Mr. Bickersteth (M. Tu. Th., 1), Mr. Hakes (Tu. W. S., 1). *Assistant-Surgeon*, Mr. R. Harrison. *Dental Surgeon*, Mr. Snape. *Pathologist*, Dr. Rawdon.

(*l*) ADDITIONAL COURSES.—*Physiology and Pathology of the Eye*, Mr. Hunt (winter).. *General Pathology and Morbid Anatomy*, Dr. Simpson (M. Th. 12) (summer). *Comparative Anatomy*, Mr. Bradley (summer).

(*m*) *Physicians*, Dr. Eason Wilkinson, Dr. Watts, Dr. Browne, Dr. W. Roberts, Dr. H. Simpson, Dr. J. E. Morgan. *Surgeons*, Mr. Beever, Mr. W. Smith, Mr. Dumville, Mr. Southam, Mr. F. A. Heath, Mr. Lund.

(*n*) ADDITIONAL COURSES.—*Pathological Anatomy*, Dr. C. J. Gibb and Dr. Philipson (summer), W., 6. *Operative Surgery*, Dr. Heath (summer). *Military Surgery*, Sir John Fife.

(*o*) *Physicians*, Dr. Charlton, Dr. Embleton, Dr. Humble, Dr. Philipson. *Surgeons*, Dr. Heath, Dr. Gibb, Mr. Russell, Dr. Arnison.

(*p*) ADDITIONAL COURSES.—*Dental Mechanics*, Mr. Moseley (winter) (S., 1). *Dental Surgery*, Mr. Merryweather (summer) (Th., 4). *Demonstrations of Pathology and Microscopy*, Mr. Hardy Smith (summer). *Operative Surgery*, Mr. Favell and Mr. Parker (summer).

(*q*) *Physicians*, Dr. De Bartolomé, Dr. Law, Dr. Frank-Smith (Tu. Th. S., 10). *Surgeons*, Mr. Barber, Mr. W. F. Favell, Mr. Parker (Tu. Th. S., 10).

TABLE OF THE MEDICAL OFFICERS, PROFESSORS, AND LECTURERS IN MEDICAL SCHOOLS OF SCOTLAND.

For further particulars regarding each Hospital and Medical School, see p. 293. The letters (W.) and (S.) in this Table denote respectively Winter and Summer Courses.

LECTURES, ETC.	ABERDEEN UNIVERSITY.	EDINBURGH UNIVERSITY. (*d.*)	ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH. (*g.*)	GLASGOW UNIVERSITY.	GLASGOW, ANDERSON'S UNIVERSITY.
ANATOMY	Dr. Struthers, 11 (W.)	Mr. Turner, 1	Dr. Handyside, 1	Dr. A. Thomson, 11, (W. and S.)	Dr. Buchanan, 5 (W.)
ANATOMICAL DEMONSTRATIONS	Dr. Struthers, and Demonstrator, 2 (W. S.)	Mr. Turner, 4	Dr. Handyside, 4 (W.); 9 to 6 (S.)	Dr. A. Thomson, and Demonstrator, 2 (W.)	Dr. Buchanan, 1 (W.) *q*
DISSECTIONS	9 to 4 (W. and S.)	Daily (W. and S.)	9 to 4 (W.); 9 to 6 (S.)	9 to 4 (W.); 7 to 2 (S.)	Daily (W. and S.)
PHYSIOLOGY OR INSTITUTES OF MEDICINE	Dr. Ogilvie, 4 (W.)	Dr. Bennett, 11 (W.)	Dr. Sanders, 11 (W.)	Dr. Buchanan, 4 (W.)	Dr. E. Watson, 12 (W.)
CHEMISTRY	Mr. Brazier, 3 (W.)	Dr. Lyon Playfair, 10 (W.)	Dr. S. Macadam and Dr. Crum-Brown, 10 (W.) *h*	Dr. Anderson, 10 (W.)	Dr. Penny, 10 (W.)
PRACTICAL CHEMISTRY	Mr. Brazier, 8 to 10, A.M. (W.)	Dr. Lyon Playfair (W. and S.)	Dr. Macadam and Dr. Crum-Brown, 9 to 5 (W. and S.)	Dr. Anderson, 12 (W.); 10 (S.) *m*	Dr. Penny, 11 (W.); 1 (S.) *r*
MATERIA MEDICA ...	Dr. Harvey, 3 to 4 (S.)	Dr. Christison, 9 (W.) *e*	Dr. A. Macdonald, 9 (S.)	Dr. Cowan, 11 (W.)	Dr. Morton, 3 (W.)
BOTANY	Dr. Dickie, 9 (S.)	Dr. Balfour (S.)		Dr. Dickson, 2 (S.) *n*	Mr. Hennedy, 10 (S.)
NATURAL HISTORY ...	Mr. Nicoll, 2 (W.); 11 (S.) *a*	Dr. Allman, 2 (Win.); also in Summer *f*		Dr. Young, *Zoology*, 10 (S.)	
MEDICINE	Dr. Macrobin, 3 (W.)	Dr. Laycock, 3 (W.)	Dr. R. Haldane & Dr. G. W. Balfour, 3 (W.)	Dr. Gairdner, 12 (W.); *o*	Dr. McCall Anderson, 4 (W.)
SURGERY	Dr. Pirrie, 10 (W.)	Mr. Spence, 10 (W.)	Dr. P. H. Watson, Dr. J. Bell, and Mr. Annandale, 10 (W.) *i*	Mr. Lister, 1 (W.)	Dr. G. H. B. Macleod, 11 (W.) *s*
MIDWIFERY	Dr. Dyce, 4 (W.)	Sir J. Y. Simpson, Bt., 11 (W.)	Dr. A. Inglis, M. W. F., 11 (W.); Dr. Keiller, and Dr. M. Duncan, 10 (S.)	Dr. Leishman, 3 (W.)	Dr. J. G. Wilson, 3 (S.)
MEDICAL JURISPRUDENCE	Dr. Ogston, 9 (W.) *b*	Dr. D. Maclagan (S.)	Dr. Littlejohn, 2 (W.); 11 (S.)	Dr. Rainy, 4 (W.)	Dr. Leishman, 4 (S)
PRACTICAL PHYSIOLOGY & HISTOLOGY	...	Dr. Bennett (W. and S.)	Dr. Sanders (Summer)	...	...
GENERAL PATHOLOGY	...	Dr. Henderson, 4 (W.)	Dr. Grainger Stewart, 4 (W.); 9 (S.) *k*	...	...
HOSPITAL PRACTICE .	Royal Infirmary, *c.* Daily, 12	Royal Infirmary	Royal Infirmary, *l*	Royal Infirmary, *p* 8.30 A.M.	Royal Infirmary, 8.30
CLINICAL MEDICINE .	Dr. Harvey and Dr. Smith	Drs. Bennett, Laycock, and Maclagan, Tu. F., 12 to 2	Drs. Sanders, R. Haldane, and G. W. Balfour, 12 (W.); Tu. F., 12 (S.)	Physicians of Royal Infirmary, M. Th., 8.30 (W.)	Physicians of Royal Infirmary, M. Th., 9 (W. and S.)
CLINICAL SURGERY .	Dr. Keith and Dr. Pirrie	Mr. Syme, M. Th., 12 (W.); also in Sum.	Dr. Gillespie, 12 (W.); M. Th., 12 (S.)	Surgeons of Infirmary, Tu. F., 8.30 (W.)	Surgeons of Infirmary, Tu. F., 9 (W. & S.)

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a Zoology with Comparative Anatomy.

b With Medical Logic.

c ROYAL INFIRMARY, ABERDEEN: *Physicians*—Dr. A. Harvey, Dr. J. W. F. Smith, Dr. A. Keith; *Surgeons*—Dr. W. Keith, Dr. Pirrie, Dr. D. Kerr, Dr. Fiddes; *Ophthalmic Surgeon*—Dr. J. R. Wolfe; *Dental Surgeon*—Mr. Williamson.

d Physical Laboratory, under Mr. Tait (W.) Medical Psychology with Practical Instruction, Dr. Laycock (S.)

e With Dietetics.

f Mr. Turner lectures on Comparative Anatomy in the Summer.

g Vaccination, four six weeks' courses in Winter and Summer, Dr. Husband. Lectures on Diseases of Children (Hospital for Sick Children), Drs. Keiller, Grainger Stewart, and Stephenson (W. and S.). Diseases of the Eye, Dr. A. Robertson (S.)

h Organic Chemistry, Dr. Crum-Brown (S.)

i Operative Surgery and Surgical Appliances, Drs. Watson, Miller, and J. Bell (S.): Surgical Pathology and Operative Surgery, Mr. Annandale (S.)

k Practical Pathological Histology, Dr. Grainger Stewart (S.)

l EDINBURGH ROYAL INFIRMARY: *Physicians*—Dr. Bennett, Sir J. Y. Simpson, Bart., Dr. Laycock, Dr. Maclagan, Dr. J. M. Duncan, Dr. Sanders, Dr. R. Haldane, and Dr. G. W. Balfour; *Surgeons*—Mr. J. Syme, Mr. J. Spence, Dr. J. D. Gillespie, and Dr. P. H. Watson; *Consulting Surgeon*—Dr. J. Dunsmure; *Ophthalmic Surgeon*—Mr. Walker; *Pathological and Special Assistant Physician*—Dr. T. G. Stewart; *Assistant Surgeons*—Mr. T. Annandale, Dr. J. Bell, and Dr. D. A. Robertson; *Dental Surgeon*—Dr. J. Smith.

m Chemical Laboratory from 9.30 A.M. to 4.30 P.M. (W. and S.)

n Demonstrations in Botanical Garden, 6.30 P.M.

o Dr. Gairdner gives a special course on two days in the week during summer.

p GLASGOW ROYAL INFIRMARY: *Physicians*—Dr. Gairdner, Dr. Leishman, Dr. Steven, and Dr. Perry; *Surgeons*—Mr. Lister, Dr. E. Watson, Dr. Dewar, and Dr. Macleod.

q Surgical Anatomy, Dr. Buchanan, 12 (S.) Osteology for Beginners, Dr. Buchanan (S.)

r Chemical Laboratory, from 10 to 4 (W.)

s Operative Surgery, Dr. Macleod, 5 P.M. (S.)

[*Continued from page* 283.]

The Army Medical School at Netley is governed by a Senate, composed of the Director-General of the Army Medical Department (President); the Physician to the Secretary of State for India in Council; the Principal Medical Officer at Netley, and the Professors of the School. The Candidates for the services remain for four months at Netley, attending Lectures on Military Surgery, Medicine, Pathology, and Hygiene. The Lectures on Military Surgery include gunshot and other wounds; arrangements for the transport of wounded; duties of Army Surgeons in the field, during sieges, on transports, etc.; and other special subjects. Those on Military Medicine refer to the tropical and other diseases of the British possessions and colonies, and to the losses by disease in peace and war at home and abroad. The Lectures on Hygiene comprises all duties relating to the examination of water, air, food, clothing, etc., of the soldier; his duties and exercise, and the circumstances affecting his health; the subjects of meteorology, statistics, and prevention of the principal diseases met with in the Army, on home or foreign service. The Lectures on Pathology have reference chiefly to the scientific examination of tropical diseases, and of other complaints which the Army Surgeon is especially called on to investigate. The Candidates also attend the wards of the Hospital to study the diseases of invalids under the Professors of Medicine and Surgery, the system of recruiting, and the modes of keeping the Army medical returns and records. They are also called on to make *post mortem* examinations, to operate on the dead body, and pass through courses of practical instruction in the laboratory on the modes of recognising the qualities and adulterations of food, and in the microscope-room on the modes of microscopic examination of morbid tisssues and of adulterations of food, etc.

NAVAL MEDICAL SERVICE.

A CANDIDATE for entry into the Royal Navy must make a written application to that effect, addressed to the Secretary of the Admiralty, on the receipt of which application he will be furnished with the Regulations, and a printed Form, to be filled up by him, to show if he possesses the required qualifications. As vacancies occur, the number of Candidates required will be ordered to attend at the Admiralty; but no person can be admitted as an Assistant-Surgeon in the Royal Navy unless he can produce satisfactory evidence that his name has been placed on the *Medical Register* as legally qualified to practise both Medicine and Surgery. And further, he will be required to make a declaration that he is free from any mental or bodily disease, defect, or infirmity which could interfere with the efficient discharge of his duties as a medical officer in the Navy.* Each Candidate will be required to produce a Certificate of good moral character, signed by the clergyman of the parish, or by the magistrate of the district; also certificates that he is not less than 20 nor more than 28 years of age; that he has received a preliminary Classical Education; that subsequently to the age of 18 he has actually attended a recognised Hospital for eighteen months, in which the average number of patients is not less than one hundred; and that he has been engaged in actual Dissection for twelve months, and that he has performed the principal capital and minor operations on the dead body under a qualified teacher. The Certificates of Practical Anatomy must state the number of subjects or parts dissected by the Candidate. On producing the above Certificates, he will be examined before a Board of Naval Medical Officers, specially summoned by their lordships, on—Anatomy; Surgery; Physiology, or Institutes of Medicine; Practice of Medicine; Chemistry; Materia Medica; Midwifery; Botany. Although the preceding are the only qualifications which are absolutely required in Candidates for the appointment of Assistant-Surgeon, a favourable consideration will be given to those who have obtained the Degree of M.D. from any University in the United Kingdom, or who, by possessing a knowledge of Diseases of the Eye, or of any branch of science connected with the profession, such as Medical Jurisprudence, Natural History, and Natural Philosophy, appear to be more peculiarly eligible for admission into the service. But Lectures on these or any other subjects cannot be admitted as compensating for any deficiency in those required by the Regulations. Such Candidates as shall have been found in all respects competent for the appointment of Assistant-Surgeon will be forthwith nominated to one of Her Majesty's ships, or to a Naval Hospital at home; or, should their services not be immediately required, their names will be duly registered for early appointments as vacancies may occur. Candidates admitted into the Naval Medical Service must serve in whatever ship they may be appointed to; and, in the event of their being unable to do so from sea-sickness, their names cannot be continued on the Naval Medical List, nor can they, of course, be allowed half-pay. No Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served five years, two of which must have been in a ship actually employed at sea, after which he will be required to pass an examination before a Board of Naval Medical Officers, assembled at the Department of the Medical Director-General of the Navy. Assistant-Surgeons at home, after completing the stipulated three years' service, may, if the public service will admit, be granted two months' leave of absence on full pay on condition of their resuming their studies at a Medical School or Hospital.

Their Lordships have been pleased further to direct that a limited number of those Candidates, who pass the best examination on entering the service, shall be promoted annually to the rank of Surgeon at an earlier period than would occur under ordinary circumstances; and that these promotions shall be awarded as follows. The Candidate who passes the best examination of his year, after five years' service. The Candidate who passes the second best examination of his year, after six years' service. The Candidate who passes the third best examination of his year, after seven years' service. Provided, however, that their second examinations are passed in an equally creditable manner, and that their conduct, during the whole time they have been in the service, has in all respects been satisfactory.

ADDITIONAL NOTES CONCERNING THE HOSPITALS AND MEDICAL SCHOOLS.

IN addition to the Tables of the Classes, etc., and hours of attendance, given at pages 284 to 287, we subjoin Abstracts of the Programmes issued by the several Medical Schools. We have extracted those points of information which are of most interest to the student, in addition to those given in the tables. It will be seen, that many of the Schools make arrangements by which the Course of Instruction required by the Examining Boards for the general practitioner can be compounded for, by paying a sum either at once or in periodical instalments. For the information of those who may wish to attend separate Classes in any School for one or more Sessions, we give the respective fees demanded in each School. To avoid repetition, and save space, the titles of the Classes are indicated by letters, thus:

a. Anatomy and Physiology.
b. Descriptive and Surgical Anatomy.
c. Anatomical Demonstrations.
d. Chemistry.
e. Medicine.
f. Surgery.
g. Materia Medica.
h. Midwifery and Diseases of Women.
i. Botany.
k. Medical Jurisprudence.
l. Practical Chemistry.
m. Comparative Anatomy.
n. Pathology and Morbid Anatomy.
o. Dental Surgery.
p. Ophthalmic Surgery.
q. Operative Surgery.
r. Histology or Microscopic Anatomy.
H.P. Hospital Practice.

ST. BARTHOLOMEW'S HOSPITAL.—Aggregate Fee, £99 15s.; or, First Winter, £31 10s.; First Summer, £31 10s.; Second Winter, £36 15s.—For General Subjects for Students of Dental Surgery, £52; or, First Winter, £26 5s.; First Summer, £26 5s.—For Unlimited entrance for final M.D., there is an additional fee of £7 7s.—Separate Classes: *a* and *b*, single, £7 7s.; perpetual, £10 10s.; *c*, one course, £3 3s.; one session, £5 5s.; *d*, *c*, *f*, single, £5 5s.; perpetual, £7 7s.; *g*, *h*, single, £5 5s.; perpetual, £6 6s.; *i*, *k*, single, £3 3s.; perpetual, £4 3s.; *l*, *m*, *o*, single, £2 2s.; perpetual, £3 3s.; *q*, one course, £2 2s.; *r*, one course, £1 1s. Unlimited entrance to all the Lectures, £65 2s.; —H.P., Medical—6 months, £12 12s.; 2 years, £18 18s.; unlimited, £26 5s. Surgical—6 months, £15 15s.; 12 months, £21; unlimited, £26 5s. House-Physicianships and House-Surgeoncies, £26 5s. Dresserships—3 months, £12 12s.; 6 months, £18 18s.; 12 months, £26 5s.

The Anatomical Museum, and the Museums of Materia Medica and of Botany, are open to students daily from 10 A.M. to 2.30 P.M.—The Reading Room is open every day. Fee to Library, one year, £1 1s.; 4 years, £2 2s. Each subscriber may retain in his possession three volumes at one time.

Collegiate Establishment.—Students attending the Practice of the Hospital, or the Lectures in the Medical College, are admitted to Residence in the Collegiate Establishment on the recommendation of a medical officer of the Hospital, which may be obtained on adducing satisfactory evidence of good moral character. The entrance fee is £2 2s.; and the expenses are from £1 10s. to £1 13s. per week. Further information may be obtained from the Warden of the College, Mr. W. Morrant Baker.

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* His physical fitness will be determined by the Board of Medical Officers, who will be required to certify that his vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses, and that he is free from organic disease, constitutional weakness, or other disability likely to unfit him for the Naval Service in any climate.

Exhibitions, Scholarships, and Prizes. Jeaffreson Exhibition, founded 1868: £20 yearly tenable for two years. Subjects of Examination, those of Preliminary Education appointed by the Medical Council.—Seven Scholarships are awarded. Two Senior Scholarships of the value of £50 and £25, in Medicine, Surgery, Materia Medica, and Therapeutics. Two Senior Scholarships of the same value, in Anatomy, Physiology, and Chemistry. Three Junior Scholarships, of the value of £50, £30, and £20, will be awarded after the General Examination at the end of the Summer and Winter Sessions.—Wix Prize, for the best Essay on "The Connexion between Revealed Religion and Natural Science."—Hichens Prize: Subject of Examination, Bishop Butler's Analogy.—Bentley Prize, for the best Report of not less than Twelve Surgical Cases occurring in the Wards of the Hospital during the previous year.—Foster Prize, for Practical Anatomy—Senior.—Treasurer's Prize, for Practical Anatomy—Junior.—The Kirkes Gold Medal, for Clinical Medicine.

Appointments.—Four House-Physicians and four House-Surgeons are appointed annually. The fees and the salaries may be learnt on application.—Sixteen Dressers are selected each year from the Students who pass the best examination in Surgery, or who may be otherwise specially recommended. Other Dresserships may be obtained by payment of the usual fees.—The Clinical Clerks, the Midwifery Assistant, and the Clerks to the Physician-Accoucheurs, are chosen from the most diligent Students.

All first years' Students are arranged in classes, and are expected to attend the Surgical Wards. Elementary Practical Instruction is given by the Assistant-Physicians in the Medical Wards.

Examinations.—Students preparing for the Universities may be examined by the tutors. An entrance fee of £5 5s. is required. Students preparing for the College of Surgeons, for the College of Physicians, and for the Apothecaries' Hall, are also examined.—Students of the first year are examined weekly.

CHARING CROSS HOSPITAL.—Aggregate Fee, for non-Matriculated Students, £79 16.; for Matriculated Students, £72 9s. (with Matriculation Fee, £2 2s.); or £38 6s. 6d. at commencement of Winter Session, and £36 4s. 6d. immediately after first or Christmas vacation.*—Separate Classes, *a, b, e,* one session, £4 4s.; two sessions, £6 6s.; three sessions, £7 7s.; *c,* one session, £2 2s; two or more sessions, £4 4s.; *d,* one session, £5 5s.; two sessions, £6 6s.; three sessions, £7 7s.; *f, g, h,* one session, £3 3s.; two sessions, £5 5s.; three sessions, £6 6s.; *i, k,* one session, £2 2s.; two sessions, £3 3s.; three sessions, £4 4s.; *l,* one session, £2 2s.; *m,* one session, £3 3s.; three sessions £4 4s.—H.P., Matriculated Students, for Full Period required by Examining Boards in London, £26 5s.; Non-Matriculated Students—either Medical or Surgical, 3 months, £6 6s.; 6 months, £10 10s.; 12 months, £15 15s.; full period, £21; both Medical and Surgical, 3 months, £10 10s.; 6 months, £15 15s.; 12 months, £21; full period, £31 10s. For a longer period, £5 5s. for each additional winter, and £3 3s. for each additional summer session.

Gentlemen are received as Matriculated Students, or those who enter for their entire Medical Education; or as Occasional Students, who enter to one or more particular Classes.—Matriculated Students attend, without additional fee, the Practical Microscopical Demonstrations on Healthy and Diseased Structures and the practice of the Royal Westminster Ophthalmic Hospital. Matriculated Students alone can fill the offices tenable by pupils, or be candidates for the Scholarships and prizes. Occasional Students are admitted to the Library on terms proportioned to the period for which they enter. The *Library* is open daily. Matriculated Students have free admission; Occasional Students pay a fee.

Residence.—Arrangements have been made with several medical gentlemen and others residing in the neighbourhood of the Hospital, to receive Students as inmates.

Appointments.—The office of Registrar to the Hospital, and Pathological Registrar to the School, tenable for two or three years, with a salary for the efficient performance of duties, is open to all Matriculated Students of the Hospital who have obtained their qualifications.—The offices of Resident Medical Officer, Resident Surgical Officer, and Physician Accoucheur's Assistant, with six months' residence, are awarded to Senior Matriculated Students after a competitive examination.—Clinical Clerks and Dressers are appointed by competitive examination for six months. A Pathological Assistant is appointed for three months.

Scholarships and Prizes.—The Llewellyn Scholarship of £25, open to all Matriculated Students who have just completed their second year.—The Golding Scholarship of £15 a year, tenable for two years, open to all Matriculated Students who have just completed their first year.—The following Medals are awarded annually:—The Gold Medal, for General Proficiency; The Governor's Clinical Silver Medal; Silver and Bronze Class Medals, on all the subjects of the Lectures. Free Scholarships are awarded to sons of professional men of reduced circumstances and position, or of gentlemen in a corresponding station of society.

ST. GEORGE'S HOSPITAL.—Aggregate Fees, £42 for first year, £42 for second year, and £10 10s. for each succeeding year.*—Perpetual Fee, £105;† or £115 10s. from those who have paid by instalments.—Lectures and Hospital Practice for Diploma in Dental Surgery, £45, (None of these fees include Practical Chemistry.)—Separate Classes—*a, b, e, f,* single, £6 6s.; perpetual, £7 7s.; *d,* single, £6 6s.; perpetual, £8 8s.; *g, k,* single, £4 4s.; perpetual £5 5s.; *h,* single, £5 5s.; perpetual, £6 6s.; *i,* single, £3 3s.; perpetual, £4 4s.; *l,* single, £4 4s.; *n,* single, £5 5s. H.P.—Physicians, 6 months, £8 8s.; three years, £16 16s.; perpetual, £25 4s.; Surgeons, 6 months, £15 15s.; three years, £21; each additional year, £10 10s.; perpetual, £42.—House-Physician and House-Surgeon, each £50 *per annum.*

Hospital Appointments.—A House-Physician is appointed annually, and a House-Surgeon half-yearly, from among the perpetual pupils. An Assistant House-Physician and an Assistant House-Surgeon are also appointed half-yearly from among the perpetual pupils; they aid in the out-patient department.—The Obstetric Assistant, who must be a legally qualified practitioner, is appointed annually. He resides and boards in the Hospital, and receives a yearly salary of £100.—The pupils of the Hospital are divided into classes under the superintendence of the Physicians and Surgeons in rotation, and are placed in charge of cases as clerks and dressers. A Curator of the Pathological Museum, and a Medical and a Surgical Registrar, are appointed annually from among the senior pupils, each with a salary of £50. One of the pupils is appointed to assist the Curator. A paid Demonstrator of Anatomy is appointed annually from among the senior students.

The *Library* and *Reading Room,* and the *Museum,* are open daily. Annual Subscription to Library, 10s. 6d.

Exhibitions and Prizes.—The William Brown Exhibition, £40 *per annum,* tenable for three years.—Sir Charles Clarke's annual prize for Good Conduct.—The Thompson Silver Medal for the best Clinical Report (with observations) of Medical and Surgical Cases (not more than twenty in each department) observed in the Hospital during the preceding year.—Sir Benjamin Brodie's Clinical Prize in Surgery, for the best Report (with notes) of not more than twenty Surgical Cases in the Hospital during the preceding twelve months.—The Acland Clinical Prize in Medicine, for the best record of not more than twelve Cases of Disease treated in the preceding twelve months.—The Henry Charles Johnson Memorial Prize, for Practical Anatomy.—General Proficiency Prizes: £10 10s. for students of each year.

GUY'S HOSPITAL.—First year, £40; second year, £40; each succeeding year, £10.—Perpetual Ticket, £100.—Materials used in practical courses are charged extra.—Separate Courses:—*a, b, c, d, e, f, h,* each course £5 5s.; *g, i, k, l, m,* each course, £4 4s.; H.P., either Medical or Surgical—3 months, £10 10s.; 6 months, £15 15s.; perpetual, £26 5s.

Hospital Appointments.—Dressers, Clinical Clerks, Ward Clerks, Resident Obstetric Clerks, and Dressers in the Eye Wards, are selected from the students, according to merit. Each Dresser (except in the Eye-Wards) has rooms and commons in the Hospital free of charge for one month. The Obstetric Clerks have the like privileges for two months each. Two Resident House-Surgeons hold office for four months. The House-Physician is appointed for six months.

Prizes.—Voluntary Examinations are held at Entrance—in Elementary Classics and Mathematics. The first three of the successful Candidates receive £25, £20, and £15. Six Scholarships from £25 to £40 each, at the end of each summer session, for general proficiency.—Two Gold Medals given annually bythe Treasurer to students for proficiency in Clinical Medicine and Clinical Surgery.

The *Museum* contains 10,000 specimens, 4,000 drawings and diagrams, and numerous anatomical models and models of skin-disease.

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* Unless, under special circumstances, other arrangements are made at the time of entering.—It is strongly recommended that Students enter at the same time to the Medical Tutor's Class—Fee, One Session, £2 2s.; Two Sessions, £3 3s.

* By payment of these Fees, a Pupil is entitled to hold the offices of Clinical Clerk and Dresser for three months each, but not to become House-Physician or House-Surgeon, or to compete for the "William Brown Exhibition" and the "Clinical" Prizes.

† Perpetual Pupils are entitled to admission to the practice of the Physicians and Surgeons, to all the Lectures (except Practical Chemistry), to compete for all Prizes and exhibitions, to hold the appointments of House-Physician, House-Surgeon, and Assistant House-Surgeon, and to become Clinical Clerks for two periods of three months each, and Dressers for two similar periods. This payment must in all cases be made at the time of entry.

KING'S COLLEGE AND HOSPITAL.—Aggregate Fee for Matriculated Students, £105.* The payment may be made by payment of £100 on Entrance; or £52 10s. on Entrance, £42 at the beginning of the second Winter Session, and £10 10s. at the beginning of the third Winter Session. For each additional year, £10 10.—Separate Classes, *a*, *b*, single, £7 7s.; unlimited, £10 10s.; *d*, single, £8 8s.; perpetual, £10 10s.; *e*, single or unlimited £7 7s.; *f*, *h*, single, £6 6s.; perpetual, £7 7s.; *g*, *i*, *k*, single, £4 4s.; unlimited, £5 5s.; *m*, single, £3 3s.; unlimited, £4 4s.; *l*, single, £5 5s.; perpetual, £8 8s.; *n*, single, £2 2s.; *o*, single, £6 6s.; unlimited, £8 8s.; *p*, single, £3 3s. Tutor's class, each Session, £3 3s. H.P.—Perpetual for Matriculated Students, £31 10s.; non-matriculated, £42. Medical Practice—3 months, £6 6s.; 6 months, £10 10s.; 18 months, £15 15s.; perpetual, £21. Surgical Practice—3 months, £10 10s.; 6 months, £15 15s.; 12 or 21 months, £21; perpetual, £26 5s.

The students received into the Medical Department are—1. Matriculated Students, or those who (with certain exceptions) receive their entire medical education at King's College. They alone can fill hospital offices, and most of the Scholarships and special prizes are limited to them. 2. Occasional Students, or those who enter to one or more particular classes.

The *Medical* Tutor assists the students living in the College, as well as the non-resident students, in the subjects of the Lectures of their first Winter and Summer Session.

The *Museums* of Anatomy, Materia Medica, Natural History, etc., are open daily from 10 till 4.

Resident Medical Officers, Clinical Clerks, and Dressers are all chosen by examination from Matriculated Students who are pupils at the Hospital.

A permanent record of every case received into the Hospital is kept by the Medical and Surgical Registrars.

Scholarships and Registrarships.—The sum of £200 is set apart annually, in consideration of £5,000 presented to the College by the late Rev. S. W. Warneford, LL.D., for Scholarships to Matriculated Students of this department; viz.: Two Scholarships, £25 *per annum* for three years, for the encouragement of previous education; and one Scholarship of £25 *per annum*, for two years, for Resident Medical Students.—College Scholarships given yearly to Matriculated Students:—One of £40 for two years, open to Students of the third and fourth year; one of £30 for one year, open to Students of the second year; one of £20 for one year, open to Students of the first year.—Daniell Scholarship, £20 *per annum* for two years, open to every Student who has worked at the Laboratory for at least six months.—Sambrooke Registrarships, annual value £50, tenable two years, to all Matriculated Students who have filled any one of the higher appointments of the Hospital, or who have become Associates.—Leathes' Prizes: A Bible and Prayer-Book, as Annual Prizes to two Matriculated Students.—Warneford Prizes. £40 in Medals and Books, as Prizes to two Matriculated Students.—Class Prizes: Books of the value of £3, in each subject, are awarded annually for proficiency in Anatomy, Physiology, Chemistry, Materia Medica, Surgery, Medicine, Obstetric Medicine, Botany, Forensic Medicine, Comparative Anatomy, and Practical Chemistry. Certificates of Honour are also given. All Students can contend for the Class Prizes.—Two Medical Clinical Prizes, one of £3 for the Winter Session, and the other of £2 for the Summer Session; and two Surgical Clinical Prizes of the same value.—Todd Medical Clinical Prize: A Bronze Medal and Books to the value of Four Guineas.—Jelf Medal.

Associates of King's College.—At the end of each Winter Session, the Professors recommend to the Council the names of Medical Students to be elected Associates.

Residence.—Rooms are provided within the College for the residence of a limited number of Matriculated Students. The cost of the academical year varies from £50 to £60. Some of the Professors, etc., receive pupils into their houses. The Council have also sanctioned a limited number of medical gentlemen, residing in London or its immediate neighbourhood, to receive pupils into their houses.—There is a Dining Hall in the College, for the accommodation of the resident Students, and for such other Students who may desire to avail themselves of it.

LONDON HOSPITAL.—Aggregate Fee, £88 4s., payable in two instalments of £44 2s. each, at commencement of first and second Winter Sessions.—Perpetual Fee to Lectures alone, £50; to both Lectures and Hospital Practice, £98 14s., payable in two instalments.—A fee of £1 1s. is to be paid for instruction in Vaccination; and a Library subscription of £1 1s. is compulsory, but perpetual.—Separate Classes: *a*, *h*, one session, £4 4s.; unlimited, £6 6s.; *b*, one session, £5 5s.; unlimited £8 8s.; *d*, one session or unlimited, £7 7s.; *e*, *f*, one session, £5 5s.; unlimited, £6 6s.; *g*, *i*, *k*, one session, £3 3s.; unlimited, £4 4s.; *l*, one course, to students of hospital, £2 2s., to others, £3 3s.; *m*, one course, £3 3s. (free to students who have paid the aggregate fee); *o*, one course, £2 2s.—H.P.—Medical: 6 months, £6 6s.; period required by Apothecaries' Hall, £12 12s.; unlimited, £21. Surgical Practice and Dressing: 6 months, including 3 months' Dressership, £8 8s.; 12 months, including 6 months' Dressership, £12 12s.; 18 months, including 12 months' Dressership, £18 18s.; 3 years, including 12 months' Dressership, £26 5s.; 12 months' additional Dressership, during the above 3 years, £5 5s.; 12 months' Dressership after the expiration of the above 3 years, £8 8s.

The Anatomical Museum and the Reading Room are open daily. The subscription to the Library is £1 1s., and is perpetual.

Prizes and Appointments.—Two Scholarships for first year's Students. The first, value £20, in December 1868, for Human Osteology. The second, value £25, at the end of the Winter Session, for Anatomy, Physiology, and Chemistry. They will not be awarded to the same Student.—The Duckworth-Nelson Prize, value £10 10s., in May 1869, open to all Students who have not completed their education; subjects, Practical Medicine and Surgery. Three Hospital Scholarships, each £20, for zeal and proficiency in Clinical Medicine, Clinical Surgery, and Practical Obstetrics.—A Resident Medical Officer, who receives £75, is appointed for twelve months. He is eligible for re-election, and then receives £100.—A Medical and a Surgical Registrar are appointed annually; the former receives £25; the latter £35.—Three House-Surgeons and a Resident Accoucheur are elected every six months.—An Assistant Medical Officer, and Surgical Dressing Pupils, remain in the Hospital.—Money Prizes, to the value of £60 *per annum*, are awarded to the most meritorious of the Dressers in the Out-Patient's Room.—Two Clinical Assistants are appointed for the Medical Out-Patients, and two for the Surgical Out-Patients, and receive salaries of £40 each.—Assistant-Dentists, and *Post Mortem* Clerks, are also chosen.—Special Certificates are given to those gentlemen who have faithfully performed their various duties.—None but full Pupils of both the Hospital and School will be allowed to compete for any of the prizes or appointments, excepting the Dresserships and House-Surgeoncies.—All the appointments are open to Students without fee or expense. The holders of all the Resident appointments are provided with rooms and board free of expense.—Special attention will be paid to the preparation of Students for their examinations at the College of Physicians and the College of Surgeons; and afternoon or evening Classes will be formed for assisting Students who wish to take the Medical Degrees of the University of London.—Almost all the special branches of Medicine and Surgery are separately taught.—The health and recreation of Students are not neglected. By the kind permission of the House Committee, the Students can play at foot-ball and other games in the field within the Hospital enclosure. There is a Foot-Ball Club. About two years ago one of the Governors built a Fives Court, on the Eton pattern, for the special use of students.

ST. MARY'S HOSPITAL.—Aggregate Fee, £89 5s. in instalments, or £84 in one sum.—Fee for all Lectures required for ordinary Examinations, £52 10s.; for Hospital Practice, £36 15s.—Unlimited Attendance on Hospital Practice and all Lectures, £105 in instalments, or £99 15s. in one sum.—For Hospital and Lectures required for Examination in Dental Surgery of Royal College of Surgeons, £52 10s.—Separate Classes: *l*, one course £3 3s.; *m*, one course, £2 2s.; unlimited, £3 3s.; *o*, *p*, one course, £2 2s.—H.P., Medical—3 months, £5 5s.; 6 months, £7 7s.; 12 months, £12 12s.; 18 months, £15 15s.; unlimited, £21; Surgical—3 months, £6 6s.; 6 months, £9 9s.; 12 months, or time required by College of Surgeons, £21; unlimited, £31.—Practical Pharmacy, 3 months, £3 3s.; 6 months, £6 6s.; 12 months, £10 10s.—Vaccination, £1 1s.

Students may make special entries to any course of Lectures or to Hospital Practice.

Special Courses of Lectures are given on Ophthalmic and Dental Surgery, Mental Diseases, Operative Surgery, Minor Surgery and Bandaging, and on Nosology; and Clinical Demonstrations on Diseases of the Skin and Diseases of the Heart will be given.

Hospital Appointments are open to the pupils without additional Fee. Three Resident Medical Officers are appointed for twelve months, and an Obstetric Officer for six months; all live free of expense in the Hospital.—Clinical Assistants are appointed for three months, to assist the Physicians and Surgeons in charge of the out-patients.—A Resident Registrarship has been created, with a salary of £100 a year, tenable for two years and open to re-election, preference being given to past House-Surgeons and Perpetual Pupils.—The above offices are awarded after competition, preference being given to the qualified Perpetual

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* Students are recommended to add £2 2s. for a second course of Chemistry, and £3:3 for Medical Tutor's fee. Attendance on the Medical Tutor is compulsory on resident Students during their first year.

Pupils.—All General Students must perform the duties of Clinical Clerks and Dressers for six months during the last two years.

Clinical Lectures twice a week by the Physicians and Surgeons. The Students are divided into three classes, each committed to the charge of a Physician and Surgeon for a definite period. The attendance of the Students in the wards is noted at each visit.

Prizes.—Examinations are held at the termination of each Session, the classes being grouped in accordance with the curriculum of the first, second, and third years. Average value of each prize, Five Guineas. Extra prizes according to merit. A prize is also given in the Class of Comparative Anatomy.—Certificates of Honour are given for superior proficiency.—Scholarship in Anatomy, annual value £25 (the holder of which will be styled Assistant-Demonstrator).—Prize of £20 for Students of the First Year at the end of the Winter Session: it may be divided into Prizes of £15 and £5.—Prize of the value of £4 4s. to the Student who shall make the best Anatomical Preparation.—Two Prosectors are appointed annually, who each receive a Certificate and £5.

The *Reading-room and Library* is open daily. A fee of £1 1s. (perpetual) is paid on entrance by each Student.

The *Museum* is open daily to Students. It contains above 3,000 specimens of Morbid and Healthy Human Anatomy; also Materia Medica and Comparative Anatomy Collections, and Natural Philosophy Apparatus.—The Histological Room is open daily.

Middlesex Hospital.—Aggregate Fee, £90 in one sum; or in instalments of £35 at the beginning of the First and Second Sessions; £20 at the beginning of the Third Session; and £10 for every additional Session.—Aggregate Fee for Hospital Practice alone, £42.—Fee for Candidates for Certificates in Dental Surgery, £42; or £26 5s. at beginning of First Session, and £15 15s. at beginning of Second Session.—Separate Classes—*a*, *c*, *d*, *e*, *f*, single, £6 6s., unlimited, £8 8s.; *b*, single unlimited, £12 12s.; *g*, *h*, *i*, *k*, single, £4 4s., unlimited, £5 5s.; *l*, *m*, single, £3 3s.; *n*, single, £3 3s., unlimited, £4 4s.; *q*, single, £5 5s.; *r*, single, £3 3s.—H.P.—Medical, 3 months, £6 6s.; 6 months, £12 12s.; 12 months, £16 16s.; 18 months, £21; unlimited, £25. Surgical, 3 months, £6 6s.; 6 months, £10 10s.; 12 months, £15 15s.; 3 years, £21; unlimited, £25. Fee to Resident Medical Officer, Secretary, etc., £1 6s.; Vaccination, £1 1s.; Dental Practice (occasional Students), £5 5s.; Pharmacy, without Dispensing, 3 months, £4 4s.; with Dispensing, 6 months, £5 5s.; 12 months, £8 8s.

Hospital Appointments.—Two House-Surgeons and three Resident Physicians' Assistants are appointed annually after competitive examination. Each pays a fee of £21. A Resident Obstetric Physician's Assistant is also appointed: he pays £10 10s.—The Officers then appointed, reside and board in the Hospital free of expense.—Clinical Clerks and Dressers are appointed by competitive examination for six months, without additional fee.

The College Tutor assists all students of the Hospital, especially those who are preparing for examination, so as to avoid the necessity of private teaching apart from that of the school.

Prizes. Written Periodical Class Examinations are held in the course of each Session, and must be attended by all general Students. Class Prizes are given. The Governors' Prize of the value of £21, and two other Prizes of £6 6s. and £4 4s., will be awarded after Examination at the bed-side and in the *post mortem* room. These are open to competition amongst Students who have completed their second, and not exceeded their third, Winter Session. An annual Prize, value £3 3s., given by Oscar Clayton, Esq., for proficiency in Comparative Anatomy.

The Museum is open to Students daily from 9 to 5. It contains about 4,000 specimens.—Admission to the Library and Reading Room is included in the Fee paid by General Students. Occasional Students, who desire to use the Library, may do so on payment of £1 1s. The books are allowed to be taken out from the Library under proper regulations.

St. Thomas's Hospital.—Aggregate Fee (giving unlimited admission), £90 in one sum; or £40 each for the first and second years, and £10 for each succeeding year.—Separate Classes: *a*, *b*, *c*, *d*, *e*, *f*, *h*, each course, £5 5s.; *g*, *i*, *k*, *l*, *m*, *p*, each course, £3 3s.—H.P.—Either Medical or Surgical, three months, £5 5s.; six months, £9 9s.; nine months, £12 12s.; twelve or fifteen months, £15 15s.; perpetual, £26 5s. Both combined: three months, £8 8s.; six months, £13 13s.; nine months, £18 18s.; twelve or fifteen months, £31 10s.; perpetual, £47 5s.

Prizes and Appointments. The William Tite Scholarship, awarded every third year, and tenable for three years.—General Proficiency Prizes (nine in number) to First, Second, and Third Year's Students, of £30, £20, and £10, for each year respectively.—The Cheselden Medal, annually, for Surgery and Surgical Anatomy.—The Treasurer's Gold Medal, annually, for general proficiency and good conduct.—The Grainger Testimonial Prize, value £20, biennially, for a Physiological Essay.—Clinical Clerks and Dressers, and Obstetric Clerks, are selected according to merit from second year's students; and the Dressers and Obstetric Clerks are provided with Rooms and Commons free of expense. The House-Surgeons and Resident Accoucheur are selected according to merit from gentlemen who have obtained their diplomas: the former to hold office for six or twelve months; the latter for three or six. All are provided with the Rooms and Commons.—The offices of Medical Registrar and Surgical Registrar are filled from among gentlemen who have completed their studies in the school. Each Registrar, on completing his Annual Report to the satisfaction of the Physicians or Surgeons, receives £40.

The Museum consists of a Physiological and Pathological Department, the latter containing above 3,000 specimens. The preparations are described in a printed Catalogue of three volumes.—The Museum of Comparative Anatomy contains about 1,000 preparations; and that of Materia Medica at least 600.—There are also a Cabinet of Microscopical Anatomy, and a Museum of Chemistry and Mineralogy.—The Students have access to a Library and to the use of a Microscope.

University College and Hospital.—Aggregate Fee, £93 3s. in one sum, or in instalments as follows (or otherwise at the option of the pupil): First Winter Term, £37 10s.; First Summer Term, £16 16s.; Second Winter Term, £25 4s.; Second Summer Term, £7 7s.; Third Winter Term, £6 6s.—Separate Classes: *a*, term, £6 6s.; half term, £3 3s.; perpetual, £9 9s.; *b*, *c*, half term, £4 4s.; entire term, £7 7s.; perpetual to Lectures, with three years' Practical Anatomy £10 10s.; Practical Anatomy after the third year, every Winter Term, £1 1s.; Practical Anatomy without Lectures for three summer months, £2 2s.; *d*, half course, £3 3s.; whole course, £6 6s.; perpetual, £9 9s.; Organic Chemistry alone, £2 2s.; *e*, single, £6 16s. 6d.; half term, £3 8s. 6d.; perpetual, £8 8s.; *f*, single, £4 14s. 6d.; perpetual, £6 6s.; *g*, *h*, *n*, single, £4 4s.; perpetual, £6 6s.; *i*, *k*, single, £3 3s.; perpetual £4 4s.; *l*, elementary course, £4 4s.; senior class, £2 2s.; summer matriculation class, £4 4s.; *m*, Comparative Anatomy, £4 4s.; Zoology, £4 4s.; perpetual to both, £9 9s.; *o*, single, £1 1s.; *p*, single, £2 2s.; *q*, single, £4 4s.; *r*, single, £4 4s.; perpetual, £5 5s.; elementary course alone, £2 2s.; Palæo-Zoology, single, £1 1s.; Mental Diseases, to Students of Medicine in the College, £1 11s. 6d.; to others, £2 12s. 6d.; Physiological Laboratory, a month, £2 2s.; single term, £4 4s.—H.P.—For Students of the Medical Faculty of the College who have already entered to three courses of six months' duration (two courses of three months' duration being considered equivalent to one of six months); and for Pupils who produce Certificates of having attended a Course of Lectures of a recognised School of Medicine, and during one year the Practice of a recognised Hospital: Physicians' and Surgeons' Practice, perpetual, £27; one year, £21 15s.; six months, £16 10s. Physicians' and Surgeons' Practice separately, one year, £16 10s.; six months, £11 5s. Bandaging, £1 11s. 6d. each course. Six Months' Practical Pharmacy, £5 5s.; three months', £3 3s. Other Pupils are admissible on payment of fees somewhat higher.

Scholarships, etc.—Three Entrance Exhibitions, value £30, £20, and £10 *per annum*, tenable for two years after examination, to gentlemen who are about to commence their first winter's attendance. The examination will be in Classics, Elementary Mathematics, Natural Philosophy, and in either French or German at the option of the Candidate.—The Atkinson-Morley Surgical Scholarship, amount £45, tenable for three years, for proficiency in Surgery.—The Filliter Exhibition of £30, annually in July, for Pathological Anatomy.—Dr. Fellowes's Clinical Medals, one Gold and one Silver, with Certificates of Honour, at the end of each term for reports and observations on the Medical Cases in the Hospital.—The Liston Gold Medal, with Certificates of Honour, at the end of the Session for reports and observations on the Surgical Cases in the Hospital.—Gold and Silver Medals, or other Prizes, as well as Certificates of Honour, after competitive examinations in the classes.

Libraries and Museums.—The General Library, the Medical Library, the Museums of Anatomy and Pathology, of Comparative Anatomy, of Materia Medica and Chemistry, of Geology, and of Natural Philosophy, are open daily.

Arrangements are made for instruction in Vaccination.

Private Instruction.—Gentlemen may obtain assistance in their studies within the College, on application to the respective Professors.

Residence of Students.—Several gentlemen connected with the College receive students to reside with them; and in the office of the College there is kept a register of persons unconnected with the College, who receive boarders into their families; among these are several medical gentlemen. Information as to terms and other particulars may be obtained at the office.

Offices tenable by Students.—Physicians' Assistants, House-Surgeons, Midwifery Assistants, Physicians' Clerks, Surgeons' Dressers, and Ophthalmic Surgeons' Assistants, are selected from among the pupils, who are also students of the College and of unexceptionable moral character, without additional fees. The Physicians' Assistants, the Obstetric Assistant, and the House-Surgeons reside in the Hospital, paying for their board.

Westminster Hospital.—Aggregate Fee, £78 15s.; in instalments of £36 15s. at commencement of First Year, £31 10s. at commencement of Second Year, and £10 10s. at commencement of Third Year. —Hospital Practice alone, £29 8s.; Lectures alone, £49 7s. in two equal instalments.—Perpetual Fee to all Lectures and Hospital Practice, £84 on entry, or in two equal instalments at the commencement of first and second years.—Fee to Lectures and Hospital Practice for any single year, £36 15s.—For Dental Diploma of College of Surgeons, £36 15s.; or £21 at commencement of first, and £15 15s. at commencement of second year.—Separate Classes:—*a, b, d, e, f*, single, £5 5s.; perpetual, £7 7s.; *c*, single, £2 2s.; perpetual, £3 3s.;* *g, i, k*, single, £3 3s.; perpetual, £4 4s.; *h*, single, £4 4s.; perpetual, £5 5s.; *l, m*, single, £2 2s.; Natural Philosophy, single, £1 1s.—Vaccination, £1 1s.—H.P.—Perpetual entry to entire practice, £34 13s. Medical or Surgical separately, each 6 months, £8 8s.; 12 months, £12 12s.; 18 months, £15 15s.; perpetual, £21. Students can attend, without additional fee, the Practice of the National Hospital for Paralysis and Epilepsy, and of the Royal Westminster Ophthalmic Hospital.

The Anatomical Museum is constantly open to the student. There are also a Pathological Museum and a Materia Medica Museum.

The Reading Room is open to the students daily. A subscription of 5s. *per annum* entitles the subscriber to have one book at home at a time.

Special Examinations on the subjects required by the Examining Boards will be held during the latter half of the Winter Session, and will be open to all Students of the Medical School without extra fee.

Appointments.—The offices of House-Physician and House-Surgeon are open to competition amongst gentlemen educated at the Hospital, who are qualified to practise under the Medical Act. They are appointed without the payment of any fee, and are provided with board and lodging in the Hospital free of expense. An Assistant House Surgeon is appointed without fee from among the senior students by examination. He is provided with commons at the Hospital table.—Clinical Clerks and Dressers are appointed without fee, in rotation, from among the most diligent students.

Prizes.—A Prize of Books or Instruments and Certificate of Honour in each course. Clinical Medicine and Clinical Surgery Prizes, each of the value of £5 5s.—Chadwick Prize for General Proficiency, £21, to the most meritorious student or students of the second or third year.

Birmingham.—Queen's College.—Aggregate Fee for all Lectures required £52 10s., payable in two instalments: for five years, with Indentures and Hospital Practice, £126, payable in two instalments.—Separate Classes: *a, b, c, d, e, f, h*, single, £5; perpetual, £8; *g, i, k, l*, single, £4; perpetual, £6; *m, o, p*, single, £3 3s.; two courses, £5 5s. —For resident students, the College expenses (exclusive of fees) amount annually to £50.—H.P.—General Hospital: Medical Practice, 6 months, £7 7s.; 12 months, £10 10s.; 18 months, £12 12s. Surgical, 6 months, £10 10s.; 12 months, £12 12s.; 18 months, £17 17s.; 3 years, £26 5s. Queen's Hospital: Medical and Surgical Practice, 6 months, £6 6s.; a year, £10 10s.; 3 years, £21.

Prizes. Two *Warneford Scholarships*, annually, after examination.—The *Sands Cox Prize, Gold Medals* or *Prizes* of the value of £21, annually.—*Warden's Prize*, of £5 5s., to the most proficient Student of the first year.—The *Percy Prize*, Books of the value of £5 5s., for the best examination in German.—*Class Prizes*, Silver Medals and Certificates of Honour, annually, in each class after examination.

The Clerkships, Dresserships, etc. in the Hospital are filled without extra fee.

Bristol Medical School.—Perpetual Fees to Lectures, except Practical Chemistry, £47 5s. Separate Classes: *a, b*, single, £5 5s., perpetual, £9 9s.; *d*, single, £5 5s., perpetual, £8 8s.; *e, f, g, h*, single, £4 4s., perpetual, £6 6s.; *i, k*, single, £3 3s., perpetual, £5 5s., *l*, single, £3 3s.

Prizes.—Prizes and Certificates of Honour will be distributed at the end of the Winter Session, after examination in all the subjects of each year.—Prize and Certificates of Honour for Practical Anatomy.—The interest of £500, under the will of the late Henry Clark, Esq., to the prizeman of the third year, educated at the Royal Infirmary.—£21 to the prizeman of the third year, educated at the General Hospital.

Bristol Royal Infirmary.—Surgeon's pupil, 1 year, £12 12s.; 2 years, £21; 3 years, £26 5s.; Dresser (extra fee), 1 year, £12 12s.; 2 years, £21; 3 years, £26 5s. Physician's pupil, 6 months, £8; 1 year, £15; 18 months, £20; perpetual, £25. Entrance Fee, £5. Subscription to Library, £1 *per annum*. Apprenticeship to House-Surgeon, including five years' residence, and attendance on Hospital Practice, £315.

Clinical Clerks and Dressers are appointed. A Pathological Clerk is also appointed every three months.

Prizes.—Two *Suple's Prizes*, each a Gold Medal of the value of £5 5s., and about £7 7s. in money, are annually distributed to the successful candidates after examinations on medical and surgical subjects. The Library contains about 2,700 volumes. The Museum is open to the students.

Bristol General Hospital.—Medical or Surgical Practice, 6 months, £6; 1 year, £10; perpetual, £20. Extra Fee for Clinical Clerk or Dresser, £5 5s. for 6 months. Library Fee, £1 1s. *per annum*. Resident pupils, £100 for the first year; £60 for each subsequent year; or for 5 years, with apprenticeship, £260.

Clinical Clerks and Dressers are appointed.

Scholarships and Prizes. A *Medical Scholarship* of £15, founded by the late Rev. Canon Guthrie, annually to the most diligent student attending the medical practice.—A *Surgical Scholarship* of £15, founded by H. M. Clarke, Esq., of London, annually to the most diligent student attending the surgical practice.

Hull and East Riding School of Medicine.—Aggregate Perpetual Fee to Lectures, except Practical Chemistry, £42. Separate Classes: *a*, single, £5 5s.; perpetual, £8 8s.; *b*, single, £4 4s.; perpetual, £7 7s.; *d*, single, £5 5s.; *e*, single, £5 5s.; perpetual, £5 5s.; *f, i, k*, single, £3 3s.; *g*, single, £5 5s.; perpetual, £7 7s.; *h*, single, £4 4s.; perpetual, £6 6s.; *l*, single, £2 2s.—H.P., Medical and Surgical, perpetual, £21. Clinical Lectures, £1 1s.

The *Library* of the Hospital is open to the Students by an annual payment of 10 shillings.

Leeds School of Medicine.—Aggregate Fee to Lectures required by Examining Bodies, except Practical Chemistry and Comparative Anatomy, £42. Entrance Fee to Library and Reading Room, £1 1s. Separate Classes: *a, d, f*, 1st session, £4 4s.; 2nd session, £3 3s.; *b*, 1st session, £6 6s.; 2nd session, £5 5s.; *e*, 1st session, £5 5s.; 2nd session, £3 3s.; *g, h*, 1st session, £4 4s.; 2nd session, £2 2s.; *i, k*, 1st session, £3 3s.; 2nd session, £1 11s. 6d.; *l, m*, each course, £2 2s.—Hospital Practice at the Leeds Infirmary, Medical or Surgical, each—a Winter Session, £7 7s.; a Summer Session, £6 6s.; 12 months, £12 12s.; 18 months, £15 15s.; 3 years, £21; perpetual, £26 5s.

Prizes.—At the close of each Session, Silver and Bronze Medals, Books, and Certificates of Honour, are presented according to merit.—*The Hardwick Clinical Prize*, value not less than £10, is given annually for the best set of reports of medical cases in the Hospital during the Winter Session.—*The Surgeons' Clinical Prize* of £10 in money is given annually by the Surgeons of the Hospital for the best set of reports of surgical cases during the Winter Session.—*The Forensic Medicine Prize* of £10 is awarded at the close of each Summer Session.—*Two Chemical Scholarships* are offered annually for proficiency in Chemistry.—Six Clinical Clerkships and eight Dresserships are at the disposal of the Physicians and Surgeons to the Hospital, and are gratuitous. *Post Mortem* Clerks and two Resident Medical Officers are selected from among the senior students.

The school-buildings comprise Lecture-Rooms; Anatomical, Physiological, Pathological, Chemical, and Materia Medica Museums; Laboratories; Library; etc.

The West Riding Lunatic Asylum at Wakefield is open to students for the study of Mental Diseases. Students can also attend the practice of the Leeds Public Dispensary, the Fever Hospital, and the Eye and Ear Infirmary.

Liverpool Royal Infirmary School of Medicine.—Aggregate fee for Lectures (not including hospital practice), £42. Separate classes, *a, b, e, f, g, h*, each course £4 4s.; *c*, £2 2s. to students who have not entered to *a* or *b*; *d*, each course £5 5s.; *i, k, l*, each course £3 3s.; *m, n, p*, each course £2 2s. Vaccination, £1 1s. Practical Pharmacy, £2 2s. For Dental Diploma: Dental Surgery, Mechanics, Anatomy and Physiology, and Metallurgy, each subject £2 2s.—Hospital Practice at the Royal Infirmary, Medical or Surgical, each—6 months, £5 5s.; 12 months, £6 6s.; perpetual to both, £31 10s.

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* For gentlemen who are not regular pupils of the School, the admission to the Dissections and Demonstrations is—3 months, £2 2s.; 6 months, £3 3s.; perpetual, £5 5s.

The Museum is open daily. The Library contains a good collection of standard works; there is a fee of 10s. 6d. for one year, or £1 1s. perpetual.

Exhibitions and Prizes.—Royal Infirmary Medical Scholarship, value £42, consisting of a Gold Medal, value £10 10s., and six months' free Board and Residence, with Dressership and Clerkship, in the Royal Infirmary.—*Four Exhibitions*—value £31 10s. each—consisting of free Board and Residence in the Royal Infirmary for six months, with Dressership.—Silver Medals, Book Prizes, and Certificates of Honour, in the various classes.—Clinical Prize in May 1869, £5 for the best report of twelve surgical cases in the Infirmary.

Four apprentices are admitted to reside and board in the Infirmary for one, two, and three years, on payment of 70, 130, or 190 guineas, including library and lecture fees, but not hospital practice—Six Dressers and six Clinical Clerks are elected quarterly from the students of the Infirmary.

LIVERPOOL NORTHERN HOSPITAL.—Fees for Practice and Clinical Lectures: Perpetual, £31 10s.; a year, £12 12s.; 6 months, £9 9s.; 3 months, £6 6s. For either the Medical or the Surgical Practice separately, half the above fees. Clinical Clerkships and Dresserships are open to all the students.

MANCHESTER ROYAL SCHOOL OF MEDICINE.—Aggregate fee for Lectures, £42 (not including hospital practice).—Separate classes, for one course, *a, b, d, e, f, g, h, k, l, n*, £4 4s.; *c, i*, £3 3s.; *p*, £2 2s. [In Practical Chemistry, there is an additional charge of 10s. 6d. for chemicals.] Hospital Practice can be attended at the Royal Infirmary.

Prizes.—In addition to three Scholarships, value £20, £15, and £20 for perpetual students, Prizes for General Proficiency have been substituted for class prizes. At the end of each session, Certificates of Honour are given for regularity of attendance and general good conduct.

Museums of Anatomy and Materia Medica, and a Chemical Laboratory, are connected with the School.

NEWCASTLE-ON-TYNE COLLEGE OF MEDICINE.—Fee for all the Lectures in one payment, £46 4s.; in two payments, on entering to the first and second Winter Sessions, each £25 4s.; in three payments, on entering to the first three Winter Sessions, £18 18s.—Single Courses of Lectures, £4 4s. each. Vaccination, £1 1s.—H. P. at the Newcastle Infirmary: 3 months, £4 4s.; 6 months, £5 5.; 12 months, £7 7s. Perpetual fee, £17 17s., or by instalments, 1st year, £7 7s.; 2nd year, £6 6s.; 3rd year, £5 5s.

Two Resident and two non-Resident Clerks are elected each half-year, each Resident Clerk paying £10 10s. for board. Four Dresserships are at the disposal of the Surgeons of the Infirmary, and are gratuitous.

Midwifery can be attended at the Newcastle Lying-in Hospital, and Diseases of the Eye at the Eye Infirmary.—Lectures on Psychological Medicine will be given at the Borough Asylum.—The Chemical Laboratories are open daily throughout the year, from 10 to 5 o'clock.—The Libraries and Museums are open daily.

Prizes.—A *Medical Scholarship*, annual value £25, for four years, in October 1868, to students who have been registered at Durham.—The *Dickinson Memorial Scholarship*, value £15 annually, after the first examination at a Licensing Board.—A Silver Medal and Certificates of Honour in each class.

SHEFFIELD MEDICAL SCHOOL.—Aggregate Fee for Lectures, £40. Separate classes, *a* and *b*, 1st course, £6 6s., 2nd course, £4 4s.; *d*, each course £4 4s.; *e, f*, 1st course, £4 4s., 2nd course, £2 2s.; *g, h, i, k, l*, each course £3 3.—H. P. at the Sheffield General Infirmary, 12 months, £12 12s.: Perpetual—Medical, £15 15s.; Surgical, £21.

Further opportunities for practice may be obtained at the Sheffield Public Hospital and Dispensary, and at the Sheffield Hospital for Diseases of Women.

UNIVERSITY OF ABERDEEN.—The Fee to each Class in the Faculty of Medicine is £3 3s., except Practical Anatomy and Demonstrations, for which the Fee in each Session is £2 2s. [This is additional to the Lectures on Anatomy.]

ROYAL INFIRMARY, ABERDEEN.—Perpetual Fee, £6; or 1st year, £3 10s.; 2nd year, £3. Clinical Medicine and Clinical Surgery, each £3 3s.—The General Dispensary and the Lying-in and Vaccine Institution are open daily; the Eye Institution, three days in the week.—Clinical Instruction is given in the Royal Lunatic Asylum for three months in the year.

UNIVERSITY OF EDINBURGH.—The annual fee for each subject required in the ordinary curricula is £4 4s., except Anatomical Demonstrations, £1 1s.; Practical Pharmacy and Dispensing, each £2 2s.; Practical Anatomy and Practical Chemistry, each £3 3s. The fee for Histology is £3 3s.; and that for Medical Psychology and Insanity £2 2s. (both courses being delivered in the summer session).—Every student, before entering with any professor, must produce a matriculation ticket for the ensuing session. Tickets will be issued at the Matriculation Office at the College, every lawful day, on and after October 7th, from ten till four o'clock.—Enrolment in the general album is the only legal record of attendance in the University.—The Library will be open for the purpose of giving out books to students, either on loan, or for reference in the hall appropriated for that purpose, every lawful day during the winter session, from 10 A.M. till 4 P.M.; except on Saturdays, when it will be shut at 1 o'clock precisely.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—The courses qualify for examination for the diplomas of the various Colleges; the Faculty of Physicians and Surgeons of Glasgow; the Apothecaries' Societies; the Navy, Army, and Indian Medical Boards. The courses also qualify for graduation in the Scottish Universities, and those of Oxford and Cambridge, and the Queen's University in Ireland, during the years in which residence is not required; and for the whole education required at the University of London. (See Regulations of Universities.)

Practical Instruction.—Royal Infirmary, 12 Noon; perpetual ticket, at one payment, £10; annual, £5 5s.; half-yearly, £3 3s.; quarterly, £1 11s. 6d. Separate payments for two years entitle the student to a perpetual ticket.—Sick Children's Hospital: three months, £1 1s.; perpetual, £2 2s.—Dispensary: Royal Public Dispensary and New Town Dispensary, each, six months, £3 3s.—Practical Midwifery: Royal Maternity Hospital, Royal Public Dispensary, New Town Dispensary, £1 3s.—Diseases of the Eye, Ear, and Teeth: Dispensaries, and the Edinburgh Eye Infirmary.—Practical Pharmacy: Royal Public Dispensary, New Town Dispensary, six months, £3 3s.

Fees.—For the first of each Winter Course of Lectures, £3 5s.; second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh, the perpetual fee for that class is £2 4s. Second Course of Midwifery, £1 3s. The fees for the following courses are: Practical Chemistry and Practical Anatomy, £3 3s. Anatomical Demonstrations, £2 2s.; when taken along with Practical Anatomy, £1 1s.; perpetual, £4 4s. Analytical Chemistry, £2 a month, £5 for three months, or £10 for the session of six months. Vaccination, £1 1s. Summer Courses of Clinical Surgery: £2 2s.; Clinical Medicine, £2 2s.; Practical Anatomy, £2 2s.; Operative Surgery, £2 2s.; and Diseases of the Eye, £2 2s. The fees in each course are, in general, £3 5s. for the first year, £2 4s. for the second year, and £5 5s. for a perpetual ticket.—The minimum fee for the education for the double qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons of Edinburgh, including the examination fee, is £90 4s., payable by yearly instalments; for the single diploma of either Physician or Surgeon, including the examination fee, £80.

EDINBURGH ROYAL INFIRMARY.—Fees: 6 months, £3 3s.; 1 year, £5 5s.; perpetual, £10 10s. Clinical Medicine and Clinical Surgery, each £4 4s for the course.—No fees for any medical or surgical appointment. Four resident physicians and four resident surgeons are appointed; they live in the house for six months free of charge. Candidates must be legally qualified to practise. Non-resident clinical clerks are appointed. Each surgeon appoints from four to nine dressers for six months. Assistants in the pathological department are appointed by the pathologist.—Instruction is given in special departments.

UNIVERSITY OF GLASGOW.—Fees, each course, £3 3s.; except Waltonian Lectures on the Eye, £1 1s.

GLASGOW—ANDERSON'S UNIVERSITY.—Fees for all the lectures and hospital practice required for the diplomas of Physician and Surgeon, £40. Class fees for each course of lectures: 1st session, £2 2s.; 2nd session, £1 1s.; afterwards free. Anatomy class fees, for lectures and demonstrations: 1st session, £4 4s.; 2nd session, £4 4s.; perpetual, £8 8s. The dissecting-room is free for two sessions to those who attend both courses of Anatomy. After the second year, the fee for admission to the dissecting-room is £1 1s. per session.

GLASGOW ROYAL INFIRMARY.—Fees, admitting to all departments of the Hospital and the Clinical Lectures, perpetual, £10 10s.; 1 year, £5 5s,; for 2nd year, £5 5s.; for 3rd, £1 1s.; afterwards free. There are four Physicians' Assistants and four Surgeons' Assistants. The office, held for one year, is open to students of the fourth year. Dressers and Clerks are appointed without fee.—DISPENSARY. *Physicians*, Dr. M'Laren and Dr. P. A. Simpson; *Surgeons*, Dr. Macleod and Dr.

Dunlop. Attendance at 2 P.M. daily. Vaccination on Mondays and Thursdays.

GLASGOW EYE INFIRMARY.—24 Beds. *Physician*, Dr. H. Rainy; *Consulting Surgeons*, Dr. A. Anderson and Dr. W. Brown; *Surgeons*, Dr. G. Rainy and Dr. T. Reid. Fee: 6 months, £2 2s.; to those attending, or who have attended, the Lectures on the Eye delivered in the University, £1 1s.

GLASGOW LYING-IN HOSPITAL AND DISPENSARY.—24 Beds. *Visiting Physicians*, Dr. Tannahill and Dr. J. G. Wilson; *Physicians to Out-Patients*, Dr. Yeaman and Dr. Dewar. Fee, 6 months, £1 1s.

GLASGOW UNIVERSITY LYING-IN HOSPITAL AND DISPENSARY FOR DISEASES OF WOMEN AND CHILDREN.—*Physicians*, Dr. Leishman, Dr. John Wilson, and Dr. MacKellar.

There are also Dispensaries for Diseases of the Skin and Ear; and the Royal Lunatic Asylum, Gartnavel, has been thrown open to Students of Medicine on payment of a small fee.

[We are obliged to defer our tabular statement and notes of the Hospitals and Medical Schools in Ireland. They shall, however, appear in an early number.]

OPENING OF THE MEDICAL SCHOOLS.

THE subjoined is a list of the Medical Schools in England and Scotland, with the date of their opening, and the names of the gentlemen appointed to deliver introductory addresses. Where blanks are left in the space for the names, it is to be understood that there is no special introductory lecture.

St. Bartholomew's Hospital—Mr. T. Smith—October 1st, 2 P.M.
Charing Cross Hospital—Dr. Pollock—October 1st, 3 P.M.
St. George's Hospital—Dr. Acland, F.R.S.—October 1st, 2 P.M.
Guy's Hospital—Dr. Moxon—October 1st, 2 P.M.
King's College—Dr. Guy, F.R.S.—October 1st, 3 P.M.
London Hospital—Mr. Critchett—October 1st, 4 P.M.
St. Mary's Hospital—Mr. J. R. Lane—October 1st, 2.30 P.M.
Middlesex Hospital—Dr. Burdon Sanderson, F.R.S.—October 1st, 3 P.M.
St. Thomas's Hospital—Dr. Barnes—October 1st, 3 P.M.
University College—Mr. Erichsen—October 1st, 4 P.M.
Westminster Hospital—Mr. F. Mason—October 1st, 8 P.M.
Bristol Medical School—October 1st.
Birmingham (Queen's College)—Lord Lyttelton—October 1st.
Hull and East Riding School of Medicine—October 1st.
Leeds School of Medicine—Mr. W. Hall—October 1st.
Liverpool Royal Infirmary School of Medicine—Dr. F. T. Roberts—October 1st, 3 P.M.
Manchester Royal School of Medicine—Dr. Simpson—October 1st, 12, Noon.
Newcastle College of Medicine—Dr. Gibson—October 1st, 2 P.M.
Sheffield Medical School—Mr. H. C. Sorby, F.R.S.—October 1st, 4 P.M.
Aberdeen University—October 28th.
Edinburgh University—November 2nd.
,, Royal Colleges of Physicians and Surgeons—Dr. Handyside—November 2nd, 11 A.M.
Glasgow University—Mr. Lister, F.R.S.—October 27th.
,, Anderson's University—October 27th.

The Dublin Medical Schools open their Dissecting-Rooms on October 1st, but lectures do not begin until the end of the month.

WE find it stated in *Public Opinion* that another lady has passed her examination as Bachelor of Sciences at the University of Paris, with great distinction. It is also reported that the lady is about to enter as a student of the Faculty of Medicine.

THE Royal Commission on Sewage of Towns, under the presidency of Sir W. T. Denison, are still proceeding with their personal investigation into the alleged pollution of the rivers Mersey and Ribble. A careful chemical analysis is being made of certain of the waters taken from the various streams and ditches; but this inquiry will be more protracted than was at first anticipated. It is understood that when it is closed, the Royal Commission will proceed to make inquiries respecting the rivers in Scotland.

SIR ALEXANDER GRANT has accepted the appointment of Principal of the University of Edinburgh, and states that he hopes to be able to enter on his duties about the beginning of November.

AN ice-manufacturing machine at Dantzic has given such very satisfactory results, that the Admiralty of the Bund has ordered that no German ship of war is to sail for the tropics without being provided with one.

THE well-known chemist, Schönbein, has just died at Baden. He was sixty-nine years of age, having been born at Mitzingen, in Würtemberg, in 1799. For many years he had resided at Basle. His name is famous as the discoverer of ozone and the inventor of gun-cotton.

SMOKE-NUISANCE IN EDINBURGH.

THE Streets and Buildings Committee of the Edinburgh Town Council have lately prosecuted a number of persons under the Smoke Nuisance Act. The North British Railway Company were the principal offenders.

THE CLERKENWELL EXPLOSION.

THE sum of £8,000, voted by the House of Commons to remunerate the loss of property sustained by the Clerkenwell explosion, was distributed by the Relief Committee on Friday and Saturday of last week. Much satisfaction was expressed by the claimants who attended at the liberality of Government.

WATER-SUPPLY OF PRESTON.

AN additional temporary supply of water, which had of late during the long continued drought been nearly exhausted, has been furnished to Preston within the last four or five weeks. The water is taken by means of centrifugal pumps from the river Hodder, on the borders of Lancashire and Yorkshire, thirteen miles from Preston, and will afford a daily supply of 2,200,000 gallons. The whole cost will not exceed £2,000.

THE EPIDEMIC AT THE MAURITIUS.

MAURITIUS papers to the 17th of July have been received at Natal. They state that the fever diminishes, but not rapidly. The mortality in June was greater than that of April; but since the 1st July there had been a diminution. June and July are considered the healthiest of the year; notwithstanding, the fever still found victims. In the first twelve days of July, the daily average was sixty-nine. In Port Louis, the daily average was in April twenty-nine, May twenty-six, and June (fifteen days) twenty-one. The disease seemed to be moving to the south of the island; there being a decrease in Port Louis, and a considerable increase in the district of Grand Port, during June. Another misfortune is lamented; viz., that immigration from Madras had been suspended, owing to the fever in the Mauritius. It was feared that, although there were labourers sufficient to make the present crop, those at present in the island, seeing that the stream of immigration was stopped, would exact higher wages; and that among the planters would be found those who would give way to their demands. We sincerely sympathise with the unfortunate inhabitants of the devoted island. We have come almost to believe that the Board of Health is, after all, the greatest scourge with which the people have to deal. An imperial investigation, conducted by reliable men, unbiassed by local prejudices and preconceived notions, is what is required.

CHILDREN'S HOSPITAL AT BRIGHTON.

WE have received the preliminary prospectus and rules of the new Brighton Hospital for Sick Children. The present house in the Western Road has been taken simply as a temporary hospital; but it is the intention of the Committee, as soon as funds permit, to erect a permanent building in every way suited to the requirements of such an institution, and worthy of the town. It is proposed that no child shall be admitted as an in-patient who is under two or above twelve years of age, nor, as an out-patient, who is above fourteen years of age. The hospital is already open for out-patients, and in-patients will be admitted so soon as the arrangements for their reception are completed. The following gentlemen constitute the medical and surgical staff: Consulting Physician, W. Addison, F.R.S., F.R.C.P.; Consulting Surgeon, J. C. Burrows, F.R.C.S.; Acting Medical Officers, Dr. Barker, Mr. Moore, and Dr. Taaffe; Dental Surgeon, Mr. Dennant. The well-known position of the members of the medical and surgical staff is alone a sufficient guarantee that the hospital will prove of great benefit to the rapidly increasing number of cases of children's diseases, many of which can alone be treated properly in a hospital such as has just been opened in Brighton.

SEWAGE OF ABERDEEN.

THE Police Commissioners of Aberdeen talk of leasing or purchasing 250 acres of land, and of spending £15,000 or £20,000 in engineering arrangements to utilise the sewage of the city for the purposes of cultivation. A Committee has been appointed to prosecute investigations which have been going on for years, but which will probably not end in action until many years have elapsed, and the usual squabbles have led to a large expenditure of money or the rejection of the whole project. The sewage of Aberdeen is at present discharged into the harbour, under the very noses of the inhabitants; and the whole system of drainage is such as would not exist anywhere but in a place where the penny wisdom of a few town-councillors impedes the way.

VACCINATION CERTIFICATES.

LAST week Dr. D. Roberts, of Great Dover Street, was summoned before the Southwark police-magistrate, for refusing to fill up and sign a certificate of successful vaccination, he having performed the operation. Mr. Irving, the clerk of the Board of Guardians, said that the public vaccinator was appointed by the Board of Guardians and paid by them. If a private medical practitioner performed the operation he should seek his fee from the party employing him, but he was bound to sign the certificate or abide by the penalties specified by the Act of Parliament. Dr. Roberts considered that there was nothing in the Act of Parliament compelling him to sign the certificate. If so, it was very hard upon the medical profession altogether. It never could have been the intention of the legislature to impose upon medical gentlemen the duties of signing such certificates without any remuneration. The magistrate, Mr. Partridge, said it was a question of law, and the defendant did not dispute the facts. He had refused to fill up the certificate because he was not paid any remuneration. There was nothing to show that he had not the remedy of getting his fee as a private practitioner from the party who employed him, but it was clear that he was bound to give his certificate to the registrar without fee. The fine under the 30th section of the Act was twenty shillings; but, as the defendant had only come forward to meet the case on those peculiar grounds, he should mitigate it to ten shillings and costs.

CLOT-BEY has died at Marseilles, at the age of 75. He had acquired a well-merited reputation by his success in establishing medical instruction and practice in Egypt. During the last ten years he lived in France in retirement, but had long been associate of the most important academies of Europe, and Commander of the Legion of Honour.

THE NEW EXAMINATION FOR PHARMACEUTICAL ASSISTANTS.—The following regulations are proposed for the modified examination for assistants under the Pharmacy Act, 1868, and have been submitted to the Privy Council. "Candidates will be required to read autograph prescriptions, translate them into English, render a correct translation of the directions for use, and detect unusual doses; to weigh, measure, and compound medicines, write the directions in suitable language, finish and properly direct each package; to recognise the *Pharmacopœia* chemicals in frequent demand, and specimens of roots, barks, leaves, fruits, resins, and gums in ordinary use; the following plants, either in a fresh or dried state, or from plates—belladonna, stramonium, hyoscyamus, conium, aconitum, digitalis, and sabina; also to estimate the quality of each specimen submitted and its freedom from adulteration; to recognise the preparations of the *Pharmacopœia* which are not of a definite chemical nature, such as extracts, tinctures, and powders, and give the proportions of the more active ingredients."

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE first meeting of the twelfth session, 1868-69, will be held at Rochester (at St. Bartholomew's Hospital), at 3.30 P.M., on Friday, 25th September. Dr. BURNS will occupy the Chair.

Dinner will be ordered at the Bull Hotel for 6 P.M.

The Honorary Secretary requests that he may be relieved of his duties in consequence of over-wrought eyes.

FREDERICK JAMES BROWN, M.D., *Hon. Secretary.*
Rochester, September 7th, 1868.

WEST SOMERSET BRANCH: ORDINARY MEETING.

AN ordinary meeting of the above Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, Sept. 30th, 1868. Dinner at 5 o'clock; after which, papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary,

Taunton, Sept. 8th, 1868. W. M. KELLY, M.D.

SOUTH MIDLAND BRANCH.

THE autumnal meeting of the above Branch will take place at the Town Hall, Luton, Bedfordshire (Dr. PRIOR, President), on Wednesday, September 30th, at 2 P.M.

Gentlemen intending to read cases or papers, are requested to send the names or titles of the same, without delay, to Dr. Bryan, Northampton.

J. M. BRYAN, M.D., Northampton } *Hon. Secs.*
G. P. GOLDSMITH, Esq., Bedford }
Northampton, September 8th, 1868.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Sept. 2nd to 8th (both inclusive).

Taken at Kew, by Dr. TREUTLER, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	30.200
Highest reading of do. (corrected & reduced), on 2nd, 10 A.M.	30.334
Lowest ditto Ditto on 7th, at 10 P.M.	30.045
Range of pressure during the week	00.289
Mean temperature of air in shade	69.5
Mean temperature of evaporation	64.8
Mean temperature of dew-point	61.2
Mean degree of humidity (saturation=100)	75.
Mean maximum temperature of the week	80.0
Mean minimum temperature of the week	52.9
Calculated mean temperature of the week	66.4
Maximum temperature in shade, on 7th	89.2
Minimum temperature (protected), on 2nd	49.9
Minimum temperature (exposed on grass), on 2nd	44.2
Range of temperature during week	45.0
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 7th	138.8
Lowest ditto ditto on 8th	76.9
Mean amount of clouds (0—10)	1.2
Total rainfall	*nil.*
Mean amount of ozone (0—10)	0.6

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	1	0	0	0	2	1	0	3	1.1
2 P.M.	0	1	0	1	0	2	2	0	0	1.5
10 P.M.	0	1	0	0	0	0	0	0	6	0.5

Mean force of wind (0—12) 1.0

The weather of the week has been warm and dry. Barometric pressure has been rather higher than last week; but the range has been the same. Temperature increased considerably until the 8th, when it again fell, owing to the NE. wind which had set in. Before the 8th, the days were oppressively hot, and the nights cool (on the 7th there was a difference of 41.3° between the highest day and lowest night temperatures), accompanied by heavy dews. On the mornings of the 2nd, 3rd, 4th, and 5th, there were thick fogs, which vanished between 9 and 10 A.M. Winds have, on the whole, been very light; but on the morning of the 8th, a fresh breeze=5 set in from NE., with an overcast sky, and continued to blow all day. The general health is good.

Kew, September 9th, 1868.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, Sept. 3rd, 1868.

Glencross, Frederic John, Devonport
Lake, George Robert, Leamington
Roberts, William Lake, Spilsby

MEDICAL VACANCIES.

THE following vacancies are declared:—

ABBEY POOR-HOUSE AND LUNATIC ASYLUM, Paisley—Surgeon.
ASYLUM FOR IDIOTS, Earlswood—Assistant Medical Officer.
BIRMINGHAM GENERAL HOSPITAL—Resident Medical Officer and Tutor.
CLOGHER UNION, co. Tyrone—Medical Officer for the Aughnacloy Dispensary District.
DAILLY, Ayrshire—Parochial Medical Officer.
DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon.
DUDLEY UNION, Worcestershire—Medical Officer for the Parish of Tipton.
DROITWICH UNION, Worcestershire—Medical Officer for the Ombersley District.
HAMBLETON UNION, Surrey—Medical Officer for the Chiddingfold District.
IRONBRIDGE DISPENSARY, Salop—Surgeon.
KINGTON UNION, Herefordshire—Medical Officer for the Eardisley District.
LAMBETH, Parish of—Resident Assistant Medical Officer for the Workhouse in Princes Road.
LURGAN UNION, co. Armagh—Medical Officer for the Moira Dispensary District.
MACCLESFIELD DISPENSARY—House-Surgeon.
MADELEY DISTRICT, Salop—Certifying Factory Surgeon.
PARSONSTOWN UNION, King's County—Medical Officer for the Kennitty Dispensary District.
QUEEN'S HOSPITAL, Birmingham—Physician.
ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.
ROYAL SOUTH LONDON DISPENSARY, St. George's Cross—District Surgeon to visit Out-Patients in the Blackfriars District.
SHEFFIELD GENERAL INFIRMARY—Physician.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Physician; Physician-Accoucheur; Surgeon.
ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street—Surgeon.
ST. PANCRAS WORKHOUSE—Medical Officer for Males.
SALFORD AND PENDLETON ROYAL HOSPITAL AND DISPENSARY, Manchester—District Surgeon.
STOCKPORT INFIRMARY—Assistant to the House-Surgeon.
TRINITY COLLEGE, Dublin—Professor of Botany.
WESTERN GENERAL DISPENSARY, Marylebone—Physician-in-Ordinary.

MEDICAL APPOINTMENTS.

BUBB, John, Esq., elected Surgeon to the Cheltenham and Gloucestershire Ophthalmic Infirmary.

SMITH, Frederick A. A., Esq., elected Assistant-Surgeon to the Cheltenham and Gloucestershire Ophthalmic Infirmary.

DONATION.—An additional donation of £500 has been presented to St. Mary's Hospital, Paddington, by Mr. Samuel Scott, in answer to the special appeal which has been recently issued by the governors of that institution.

BEQUESTS.—The Right Hon. Caroline Baroness Wenlock, of Escrick Park, Yorkshire, has left £100 to the York County Hospital. The late Miss Jane Alexander, of Cambridge Terrace, Kensington, has bequeathed to University College Hospital, £300; Westminster Hospital, £100; King's College Hospital, £100.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.—At the meeting of this Society, held on Friday, September 4th, the following gentlemen were elected office-bearers for the year. *President*, J. G. Fleming, M.D. *Vice-Presidents:* W. T. Gairdner, M.D.; E. Watson, M.D. *Council:* D. Dewar, M.D.; D. Tindall, Esq.; G. H. B. Macleod, M.D.; A. R. Simpson, M.D.; D. Richmond, M.D., Paisley; F. Thomson, M.D.; T. Torrance, Esq., Airdrie; H. Thomson, M.D. *Secretaries:* James Adams, M.D.; Dr. R. Perry, M.D. *Treasurer:* H. R. Howatt, M.D.

THE HERBERT MEMORIAL HOME.—The Memorial Committee—to whom the superintendence of the Herbert Seaside Convalescent Home, erected at Bournemouth by the liberality of friends and admirers of the late Lord Herbert, was entrusted—have just issued their first annual report. The Home has been handed over free of debt to the governors of the Salisbury Infirmary; the chairman of the Committee, the Right Hon. T. Sotheron Estcourt, having generously paid the sum of £2,000, the balance against the Committee; and the expense of furnishing the Home has been met by the receipt from Lady Herbert of nearly £400, the balance in hand after closing the establishment at Charmouth. The Home, which was opened for the reception of patients on October 1st last, has already been attended with great success, 128 patients having been admitted in ten months.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY....	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

BETA.—We cannot see that there was any neglect of duty, the circumstances having been as described.

SODA WATER RACKS.—We have lately seen some very convenient and useful articles of this description, made by Messrs. W. & J. Burrow of Malvern. They are made of metal, of various sizes—sufficient for 2, 3, 4, 6, or 12 dozen bottles. The bottles lie in them safely, and in such a way as to allow free access of air; and the racks, from their occupying little space, can readily be stowed in a cool place.

THE DISCUSSION ON APHASIA AT NORWICH.

SIR,—Permit me to correct an error in the report, which appeared in your last week's impression, of the discussion on Aphasia at the Norwich Meeting of the British Association. In this report, I am made to say that "I had myself examined twenty-seven cases of aphemia", whereas what I did say was that "I had collected for the purposes of statistical research the details of twenty-seven *post mortem* examinations of aphasic patients, whose cases had been observed by myself or others; and that of these twenty-seven autopsies, five only were corroborative of Professor Broca's theory, and twenty-two were against it."

I trouble you with this correction, as I am anxious that the settlement of this much disputed question should not be retarded by an unintentional misstatement.

Norwich, Sept. 7th, 1868. I am, etc., F. BATEMAN, M.D.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Chester Chronicle, August 28th; The Brighton Examiner; The Lincolnshire Chronicle, September 5th; The European Mail for South Africa, August 25th; The Lincoln Gazette, Sept. 5th; The Japan Times, July 11th; The Belfast News-Letter, Sept. 8th; The Wiltshire County Mirror, Sept. 9th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Meadows, London: Mr. J. K. Spender, Bath; Mr. C. Joubert de la Ferté, Hungerford; Mr. T. Gerald, London; The Proprietors of the *European Mail;* Dr. Barry, Twickenham; Mr. T. B. Thwaites, Bishop Auckland; Mr. Bainbridge, Harrogate; Mr. Lowndes, Liverpool; Messrs. Maclachlan and Stewart, Edinburgh; Messrs. Smith and Son, London; Mr. C. Needes, London; Mr. R. Davies, London; Dr. Chaldecott, Chertsey; Dr. F. J. Brown, Rochester; Mr. E. Bellamy, London; Mr. J. A. Thompson, London; D. P. H., Clifton; Dr. C. Cooper, Brentford; Mr. A. Ransome, Bowden; Mr. W. Adams, Kingston; Dr. W. Lomas, London; Dr. F. Bateman, Norwich; Mr. J. Hainworth, London; Malaria; Mr. W. Thurnall, Bedford; Dr. W. Strange, Worcester; Dr. G. Rolleston, Oxford; Mrs. M. A. Baines, London; Mr. A. L. Bogle, Hay; Dr. Eastwood, Chesterfield; Mr. Grewcock, Nottingham; Mr. Moore, Reading; Mr. Murphy, Cockermouth.

LETTERS, ETC. (with enclosures) from:—

Mr. F. Le Gros Clark, London; Dr. A. Inglis, Edinburgh; Dr. J. C. Murray, Newcastle-upon-Tyne; Dr. J. C. Thorowgood, London; Dr. R. Perry, Glasgow, Mr. J. Simon, London; Dr. Duncan, Glasgow; Mr. B. Blower, Liverpool; Dr. A. T. H. Waters, Liverpool; Dr. Little, Dublin; Mr. J. Bradley, Liverpool; Mr. R. Dunn, London; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; The Registrar-General of Ireland; Dr. Treutler, Kew; Dr. John Murray, London; The Registrar-General of England; M.D.; Mr. J. De Courcy Young, Birkenhead; Dr. Fergus, Glasgow; Dr. Kelly, Taunton; Dr. Robinson, Dublin; Dr. Bryan, Northampton; Dr. R. McDonnell, Dublin; Rev. H. Wright, Cheltenham; Dr. H. N. Edwards, Shrewsbury.

LECTURES
ON THE
PRINCIPLES OF SURGICAL DIAGNOSIS:
ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

By F. LE GROS CLARK, F.R.C.S.,
Surgeon to St. Thomas's Hospital, and Examiner in Surgery in the University of London.

LECTURE IV.

Lesions of Encephalic Nerve-centre—Introductory Remarks—Objective and Subjective Indications—Fracture of Skull; its Detection and Import—Use of Trephine—Depression without Fracture—Fracture of Base; its Diagnostic Signs and Symptoms—Inquiry respecting Fracture by Contre-coup—Means of determining the nature of a Fracture of the Base—Recovery after such Fracture.

MR. PRESIDENT AND GENTLEMEN,—Whilst natural science has been developed chiefly by accurate observation of facts, that development has, by a necessary and happy reaction, induced more caution in generalising from those facts, and more critical exactness in the definition and use of words. The vague mysticism of our past nomenclature has given place to intelligible precision of language; and an affectation of learning is no longer tolerated as the substitute of that wisdom which can afford a confession of ignorance, and, in so doing, takes the first step towards renewed exertion.

It may seem a trite remark,—it is certainly one which needs little exemplification,—that our knowledge of many subjects associated with the laws of life is still very imperfect. Much light has been thrown upon the conditions on which life is maintained, but we are still in ignorance of what life is. Many changes which we formerly believed to be vital are now proved to be chemical; and physical and vital energy have been shown to be more closely associated than was formerly supposed: but this scarcely brings us nearer to the demonstration of their identity. The capacity of the living germ for the conversion of physical into vital force or energy, under favouring circumstances, implies the existence of a quality which distinguishes it from inorganic matter; and this property or endowment, whatever it may be, still eludes our research. Whether the assumed inseparable association between matter and force is a step towards the solution of this problem, I do not venture to conjecture; and it would assuredly be an idle speculation to define any limit to the results of physical investigation.

Whatever life may be, we know that it exercises an all-pervading influence throughout the frame; that it endows organs with attributes which fail on its withdrawal; that the chemistry of inorganic matter is modified or suspended by its agency; that physical laws obey its behests; that it possesses its well-organised system of intercommunication, by which all parts of the frame are coerced into unity of action, and bound together by an invisible cord; that it resides no where, and yet is everywhere; that its presiding influence may be cut off, by violence, from a section of its dominions, without interference with the rest; that it will resist the rudest shock, or may succumb to one which could be supposed scarcely capable of disturbing its equilibrium;—exhibiting thus a sensitiveness which might be mistaken for inconstancy, if modesty did not prompt us rather to ascribe the apparent incongruity to our own ignorance.

Although the dominion of vitality is everywhere apparent in the animal organism, pervading or influencing every part, there are certain organs through the medium of which its phenomena find special expression; and the centres of nervous influence are the favoured agents in this mission. Theirs also is the still higher attribute of being the material medium by which the mind is brought into relation with the external world. Thus, in the diagnosis of the various lesions to which the nerve-centres are obnoxious, we are compelled to extend our survey over a large field, and to take cognisance of many associated circumstances, which are indirectly indicative of functional disturbance or of organic mischief. These lesions constitute a branch of practical medicine which is shared between the physician and surgeon; but the line which separates the two sections is conventional rather than real. The results of violence cannot be profitably studied, apart from those conditions of the brain, for example, which are the concomitants or consequences of diseased action; and the converse may be affirmed with equal truth. Yet, I need scarcely observe that the scope of these lectures will compel me to limit my observations almost entirely to those conditions of disease or injury which fall within the special province of the surgeon; and to treat even these briefly and suggestively, as far as my experience has taught me to associate symptoms or signs with particular lesions.

And here I may at once remark that our knowledge is still very defective, perhaps necessarily so, from the difficulty which attends investigations of this nature, and the fact that there are unfortunately but few whose special education has endowed them with tact of hand and observation, to qualify them for the task of examining and reporting, in a trustworthy way, upon the delicate microscopic changes which disease produces in tissues, the actual healthy condition of which is not familiar to many. The intimate mutual relations of the various nerve-centres and of individual parts of each centre; our imperfect acquaintance with the localisation of special functions; our ignorance of what nerve-force is; the delicacy of the texture which is the subject of accidental injury or of experiment; the multitude of complicating circumstances which are often present, and the frequent incapacity of the patient to aid by replying to inquiries—altogether constitute a serious obstacle to correct diagnosis in these injuries. But, on the other hand, physiology and morbid anatomy have promoted our acquaintance with pathological changes; and thus, by establishing principles of more accurate diagnosis, have conduced to the introduction of a more settled—we may hope a more successful—system of treatment. Yet, I am bound to say, in reviewing my own experience and referring to the recorded observations of others, that, notwithstanding the obstacles to which I have alluded, I am disappointed to find that the advance made of late years in the special diagnosis of nerve lesions is so limited.

I should have been glad to introduce this subject by a review of the existing anatomy and physiology of the nervous system,—a course which, I apprehend, the conditions of this professorship would justify; but I fear, for the reason already assigned, that I must content myself with such brief allusions as may assist me in the object I have more directly in view. It is my purpose to briefly exemplify, as far as opportunity has enabled me, the various lesions, to the diagnosis of which I shall refer.

The diagnostic indications of injury to the Encephalic centre are both objective and subjective. The skull may be fractured; or functional derangement may denote that the brain has received a shock or hurt. Nevertheless, such injury to the bone by no means necessarily implies the co-existence of lesion of the contained nerve-centre; and the latter may exist, even to a fatal extent, without actual breach of texture of the osseous case. It is scarcely necessary to remark that fracture or other injury to the skull is, as such, comparatively of little importance, except in so far as it is accompanied by, or entails as a sequence, mischief to the brain. It may be accepted, therefore, as a *general* principle, that the presence of fracture, which is unattended by cerebral symptoms, rarely requires or justifies surgical interference. I speak of the principle as *general*, and of interference being *rarely* demanded, because instances do occur in which extensive fracture with depression exists, without producing immediate cerebral symptoms of urgency or even of importance, but which, nevertheless, call for surgical assistance. This apparent anomaly, of serious textural lesion without immediate interference with any special function, seems to be due to the absence of compression of the brain, and to the duality of the cerebral hemispheres. I may mention one striking example of this, among many of the same class which have come under my notice.

A workman in a factory, whose business it was to clear away the dust produced by the action of a revolving saw, had his skull cloven whilst he stooped at his work. The saw cut through the skull parallel to, and a short distance from, the longitudinal sinus, tearing it open, shattering the bone from the centre of the forehead to the occiput, and driving several fragments into the brain, which was ploughed up and extruded from the cranium in considerable quantity, passed out through his nostrils, and adhered to the temporary dressing which had been applied. Although the longitudinal sinus was freely laid open, hæmorrhage from it was readily controlled by a compress. He recovered consciousness on the following morning, vomited constantly for three days, and then began to take food. Even subsequently, this injury was unaccompanied by any manifest evidence of its severity, except partial hemiplegia. The patient remained conscious till he died; replied to questions with perfect intelligence; described his accident; took food freely; and attempted to sit up in bed. He survived ten days, and then died suddenly from hæmorrhage into the brain.*

[Since this lecture was delivered, my late dresser, Mr. Frederic Ward, has communicated to me the following case, which, from the similarity of the accident and the recovery of the patient, I think worthy of record:—"J. S., aged 14. Three years since, his head came into contact with a circular saw in motion; and the consequence was an extensive laceration of the scalp and fracture of the skull. The direction of the injury was from the right eye backwards; and several fragments of bone were removed, and some extruded brain subsequently sloughed. The extent of the injury is shown now by a cicatrix over the frontal and parietal bones, measuring six inches; the greater part firm, but presenting a space, both anteriorly and posteriorly, closed only by soft tissues, which rise and fall considerably with each beat of the heart. Since his recovery, his mother states that he has become forgetful, passionate, and very mischievous and untruthful. The temperature of the left side (hands and arms) feels perceptibly lower than that of the right. The vision of the left eye and hearing of the left ear, as well as the discriminating power of taste, are very sensibly impaired; and extremes of temperature are not perceived. His sleep is unsound, and he frequently talks incoherently." This patient was under the care of Mr. Corner of Poplar, who kindly sent him to me for inspection.]

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* See *Medical Times and Gazette*, Clinical Lecture, Nov. 10th, 1860.

It must have occurred to many of my hearers, as to myself, to raise large fragments of bone which have been driven into the brain; the patient meanwhile being conscious of all that was going on. But such lesions necessarily entail, sooner or later, consequences of imminent peril; and, therefore, steps must be taken to limit the risk in these cases, as far as practicable and safe, by raising depressed fragments of bone.

There is also another class of cases in which the question of primary interference with the trephine may be entertained: I mean those in which a limited and penetrating wound of the skull can leave but little doubt in the mind of the surgeon that the brittle internal table has been splintered. Of course, the presence of symptoms of compression, under such circumstances, demands interference; but, in my experience, the occurrence of such an injury without some symptoms of compression is rare; and, when such cases do occur, I cannot say I am disposed to subscribe to the doctrine that so serious, and in itself dangerous, an operation as trephining should, as a rule, be resorted to. I cannot recall a single instance in which I have felt myself justified in performing this operation where no symptoms have been present, or in which I have had occasion to regret such abstinence. I must, however, admit that fatal mischief does sometimes supervene from inflammation and suppuration between the dura mater and bone, or even in the substance of the brain; and then the use of the trephine rarely affords more than temporary relief. This secondary form of mischief is occasionally exemplified where there is no depression of bone, and where, therefore, the alternative of primary operation could not be entertained.

I have thought it expedient to make the foregoing remarks, with a view of avoiding subsequent reference to the questions involved, which possess a general rather than a special interest in relation to diagnosis. But it is essential to bear in mind that there is no direct proportion between the extent of actual breach of texture in the brain and the accompanying or even consequent symptoms.

In the absence of cerebral disturbance, the existence of fracture can be determined only by objective signs, which are sensible to the touch or to the sight. These are generally at once apparent, or may be ascertained by careful examination; but, as the importance of diagnosing fracture is to be measured by its actual or contingent implication of the brain, caution must be exercised in seeking, by any operative interference, for confirmation of suspected injury to the skull. Thus it may be difficult even for the experienced surgeon to distinguish between a puffy circumscribed tumour of the scalp with sharp and well-defined circumference, and actual depression of bone; but his acquired knowledge will probably have taught him that, in the absence of cerebral symptoms, he is not justified in gratifying his curiosity by an incision. Nay, I would say further, that such incision should not be practised even when early symptoms indicate functional disturbance of the brain, which may be due exclusively to shock or concussion. The same rule should, in my opinion, apply even where the scalp is wounded. Extended incisions, made with a view of discovering fracture, are, under the above circumstances, mischievous, by denuding the pericranium, and thus aggravating the risk to which the patient is exposed. It therefore behoves the surgeon to discriminate between symptoms which are due to depressed bone, and those which may be explained by a blow upon the head, without such complication; and it is preferable to await the development of the case, than to be precipitate in acting.

Fissure of the skull, without displacement, may be detected where the scalp is wounded. Thus a patient was admitted into the hospital, under my care, who had been struck on the head by an iron girder. He was stunned, but soon recovered consciousness, and walked to the hospital. He was very sick on his admission. He had a scalp-wound over the right parietal bone, and a distinct fissure of the skull, without displacement. He had no subsequent head-symptoms, and the wound healed kindly. He was watched for a considerable time, and then allowed to go home. Or, again, inequality of the line of fracture may be detected, indicating some depression of bone, without any attendant symptoms of injury of the brain. In such a case, the depression may be of the outer table only. Thus a middle-aged man was recently under my care, who had been struck down with a bludgeon, and robbed. A contused wound of the scalp enabled me to feel a fracture, with irregularity such as I have described; yet, after recovering from the shock of the blow, he walked home, and was then brought to the hospital. There was entire absence of cerebral symptoms, beyond such as would be accounted for by reaction after shock. I was, of course, alive to the possible contingencies in this case, and kept the patient for a long time under my notice. He suffered at times severely from pain in the head; and a small wound continued to discharge, until I satisfied myself that the proper time had arrived to enlarge this opening, when I removed a loosened fragment of the outer table of the skull, and the patient recovered speedily and permanently.

Such an injury may present an extent of depression which compels the conviction that both tables are fractured; yet, as I just now remarked, symptoms of compression may not be present. I remember a well-marked exemplification of this condition, occurring in a young man under my care some five or six years since. He was struck down by a blow on the forehead from a falling box of bricks. He rallied speedily from the stunning effects of the blow, and his only symptom, on admission into the hospital, was a little drowsiness. About two inches above the orbital ridge, and near the centre of the os frontis, the scalp was lacerated, and a fragment of bone, about half an inch in breadth, and two and a half inches in length, was driven in and depressed, so as to place the outer table on a level with, or even a little beneath, the inner table of the surrounding bone; moreover, it was evident that the inner table of the fragment covered a larger area than the outer, being fractured with a squamous or bevelled edge. Pulsation, synchronous with the heart's action, was apparent in the wound as the blood welled up. Yet this patient never had any brain-symptoms; but after five weeks, a thin plate of bone exfoliated, evidently the outer table only. I anxiously weighed the risk of secondary mischief in this instance against that of trephining; and the extent of depression, together with the healthy youth of the patient, and entire absence of symptoms, determined me in abstaining from interference. I have the notes also of another case, which presented a remarkable feature, the explanation of which can only be conjectured. A boy of 14, was struck by a falling rocket-stick on the right temple. There was a double fissure in the frontal bone; one extending directly upwards from the superciliary ridge, the other outwards. He was insensible, with a short interval of consciousness, for some hours after the accident. The eye was closed, but uninjured; this was particularly noticed. He rallied without head-symptoms, after recovering consciousness; but the eye was lost by sloughing of the cornea and suppuration. Was this due to injury of the fifth nerve?

Although I regard the use of the trephine as an expedient fraught with danger, there can be no doubt about the propriety of using it to afford the chance of relief in intracranial suppuration. That its employment is so often unsuccessful, is probably due to extension of mischief, consequent on violence to the brain-substance. Although the diagnostic signs of compression from intracranial suppuration in disease are identical with those which arise secondarily from injury, I should be disposed to have more confidence in the result, and for the reason assigned, in the former than in the latter condition. An interesting case of syphilitic necrosis of the os frontis was under my care about six years since; the patient, whilst under treatment, became dull, and complained of headache. In the course of two or three days, coma seemed imminent; and, on applying the trephine, both tables of the skull were found to be necrosed, and pus was deposited between the bone and dura mater. The operation was succeeded by immediate relief of the symptoms; but sloughing of the dura mater ensued, followed by protrusion of the brain. This was cautiously controlled by pressure, but continued for many days. He struggled through; and I afterwards removed a large fragment of the entire thickness of the frontal bone. Ultimately he quite recovered, without any apparent deterioration of brain-function, but, of course, with a gap whence the necrosed bone had been removed.

Fracture, with depression, may occur over the frontal sinus, and then we should not expect brain-symptoms. In a case of this kind, where a considerable portion of the front wall of the sinus was driven in, the only memorandum I have is, that air was freely extravasated into the areolar tissue of the eyelids. It is not infrequent to find the frontal sinus involved in other fractures of the skull.

Fissure of the skull, accompanying scalp-wound, but unattended by brain-disturbance, after subsidence of shock, and followed by rapid recovery, is by no means an infrequent occurrence. These cases are suggestive of extreme caution in prognosis, and demanded long-continued abstinence from any and every source of excitement on the part of the patient. Of such fissures as associated with fracture of the *base* of the skull, I shall have to speak presently.

In diagnosing the presence of fissure, the error of mistaking for this condition a suture or Wormian bone must be guarded against. The sutures are rarely separated to any extent, except in severe and crushing injuries of the skull. Of fissures of the inner table only, I have no record.

In children, there seems to exist a mutual accommodating property between the skull and brain, admitting of considerable depression of bone, without the co-existence of any symptoms of compression. I remember witnessing a remarkable instance of this kind many years since in one of Mr. Green's patients; and an equally striking illustration occurred in my own practice. I was requested, when in South Wales about ten years ago, to see, with Mr. Chater of Tenby, a child who had been injured on the head by a fall. Although I retain an accurate recollection of the chief features of the case, I have recently sought and obtained an interview with the boy and his parents, and have procured the following information from them and from my own observation.

C. F. is now a little over ten years of age. When about six months old, he sprang from his sister's arms and fell, striking the ground with the left side of the head. He had on a thick hood at the time, so that the skin was not broken, but a deep indentation was caused by a pebble with which the head came into contact. The indentation was oval, about three quarters of an inch deep in the centre, and looked as if half an egg had been pressed in; the end of the thumb might easily have been buried in it; this depression presented no sharp edge to the touch, and was situated a little posterior to the parietal eminence. How long it lasted the parents are unable to say; but the depressed bone appears gradually to have risen to its former level; neither indentation nor roughness can now be felt; but the parietal eminence on that side is flat when compared with the other. The child was not unconscious at the time, smiled soon afterwards when spoken to by its mother, and recognised her; it had no head-symptoms, and soon recovered. The boy is now at school, is sharp at his lessons, and has a good memory, and is reported as being rather mischievous—not a very rare trait in a boy of ten. Of course, I recommended that nothing should be done in this case, and predicted an early recovery of the normal form of the skull.

In fracture of the *base* of the skull, the objective signs are indirect and equivocal; most of them are rare. Thus, ecchymosis in the mastoid region, or in the pharynx, or in the eye, may be due to other causes. Of these, probably, the pharyngeal extravasation is most to be relied on, but it is infrequent or but rarely observed. In one instance which came under my notice, hæmorrhage from the pharynx accompanying cerebral mischief, was suggestive that the injury was in the base of the skull; this patient recovered. Ecchymosis, and even abscess, may occur over the mastoid region without necessarily indicating fracture. About a twelvemonth since, a boy was under my care with head-injury, who recovered in a few weeks so far as to be convalescent; and then he had a relapse. He became drowsy and irritable, and complained of severe pain over the mastoid process; after a few days an abscess declared itself, and was opened. I could not satisfy myself that this suppuration was associated with the original injury, though I thought it not improbable. He obtained immediate relief, and soon made a good recovery.

In a young woman, recently under my care, remarkable tenderness over the mastoid process suggested to me that fracture of the base existed, even before other symptoms had become sufficiently developed to excite alarm. A *post mortem* examination after survival for a fortnight, revealed fracture of the petrous bone.

In another of my patients, who had fallen into the hold of a ship, and was brought to the hospital, where he died in a few hours, the only external indication of injury was ecchymosis in the occipital region. The base of the skull was found fractured across, the injury involving both petrous bones.

Although ordinary ecchymosis affecting the eyelids, or even the surface of the eye, is not to be depended on as characterising fracture of the base in which the orbit is involved; yet the occurrence of this condition, under certain circumstances, is pathognomic of this special form of fracture. The circumstances to which I allude are, that an interval of some thirty-six hours after the injury should elapse before the ecchymosis makes its appearance; and then that it should be first apparent on the ocular conjunctiva, and *subsequently* spread to the lids.

Bleeding from the nose is so frequent a concomitant of injury to the head, that its occurrence can scarcely be regarded as of diagnostic value in fracture of the base, unless persistent, and under circumstances to excite suspicion.

Of serous discharge from the nostril I have no record among my own cases; but a child was recently under the care of my colleague, Mr. Solly, in whom this occurrence succeeded epistaxis, consequent on injury to the head. The child had been run over, was unconscious for some time, and subsequently had a succession of fits. Nearly a month after the injury, the little patient had recovered from the more urgent head-symptoms, but continued fretful in temper; there was marked facial paralysis, with much serous discharge from both right ear and right nostril: the pupils were equally active.

I may remark that force directly applied to the face may involve the base of the skull. This occurred in the case of a gentlemen, who was struck by the shaft of a cab in rapid motion, on London Bridge, and was immediately brought to the hospital. The nasal region of the face was driven in, whereby frightful mutilation was produced, but the patient's condition did not excite immediate apprehension. Cerebral symptoms, however, supervened shortly afterwards, and death ensued. These symptoms indicated the condition which was verified at the *post mortem* examination; viz., that injury to the cribriform plate of the ethmoid bone had involved, secondarily, the anterior lobes of the brain in the inflammation which followed this lesion.

I have already mentioned one case in which the escape of cerebral matter by the nostrils proved fracture of the cribriform plate of the ethmoid bone. In another patient, whose head was crushed between a falling weight and the axle-tree of a railway carriage, cerebral matter was found mixed with the blood which was vomited. The ethmoid bone was involved in an extensive fracture, and the inferior surface of the anterior lobe of each hemisphere was lacerated. Yet this patient survived till the fifth day, and was rational till the morning of the third. The vault was also extensively fractured.

Much importance has been attached to the oozing of fluid from one or both ears, as a diagnostic sign of fracture of the base of the skull, crossing the petrous bone. Such fluid may be blood, or serum, or a mixture of the two. Blood must, of course, be derived from lacerated vessels; pure serum, or a limpid liquid closely resembling it, has its source in the subarachnoid space; sero-sanguineous fluid may consist of a mixture of blood and cerebro-spinal fluid, or it may be blood combined with the labyrinthic secretion, if the quantity be limited; or, again, it may be, and probably most frequently is, such a dilution of blood with serum as is met with in subsiding hæmorrhage from an external wound; this last is probably always the explanation of such mingled oozing when it succeeds, as is so frequently the case, the escape of pure blood. My own experience has taught me to attach but little importance to bleeding from the ears, and succeeding sero-sanguineous oozing. Cases presenting this condition so frequently recover, and in so short a space of time, as to forbid the supposition that the base of the skull had been fractured; under such circumstances the blood is probably derived from the auditory canal, or from the tympanum. But, in combination with other associated signs, it may assist in supporting the supposition that the petrous bone has been fractured; although the recovery of the patient, in the absence of such allied indications, might reasonably suggest serious doubts on the subject. An interesting case, exemplifying this remark, came under my notice about four years since. I was asked by Mr. Mitchell, of Clapham Road, to see with him a young lady, who had imprudently jumped from a carriage in rapid motion, and, her dress becoming entangled in the door, she was thrown with violence on her head; the only mark, indicating where the blow was received, being behind the left ear, just above the mastoid process: this part was contused, but the skin was not broken. The insensibility which ensued was very transient, but the patient remained in a state of collapse for some hours; reaction was moderate. There was bleeding from the ear, mouth, and pharynx, which persisted for several days; there was complete paralysis of the muscles supplied by the portio dura, and hearing on the same side was entirely suspended. Six weeks elapsed before these nerves recovered their functions. This young lady's recovery took place without the occurrence of any serious brain-symptoms. In such a case as this, there is no demonstrative proof that the petrous bone is broken; but the combination of circumstantial evidence is very much in favour of the supposition that it was so in this instance. Possibly the pharyngeal hæmorrhage was from the Eustachian tube.

Persistent arterial bleeding from the ear, especially where such hæmorrhage recurs after an interval of some days, is suggestive of fractured petrous bone as its source. I shall presently cite a case exemplifying this condition.

A limpid fluid, supplied in abundance, can have but one source, the subarachnoid space. Frequently, the flow lasts for several days, and saturates the pillow of the patient. I apprehend that this sign may be regarded as unequivocally diagnostic of fractured petrous bone. Under these circumstances, reaction may be accompanied by hæmorrhage; in which case the mixture of blood and serum is to be viewed in a different light from the same coincidence, when it occurs primarily; the latter condition may accompany fracture of the base; but as an element in diagnosis it is not to be depended on.

The absence, except in small quantity, of albumen, and the presence of an excess of chloride of sodium, in the cerebro-spinal fluid, has been repeatedly shown by analysis. I have on the table some fluid removed, by tapping, from the head of a hydrocephalic child; and it is characterised by the peculiarities above mentioned; there is a trace of albumen, but chlorine is present in unusual quantity.

The occurrence of paralysis of the facial and auditory nerves, as exemplified in the case I have just narrated, is a [illegible] consequence of fracture; but it may also depend on pressure [illegible] resulting from hæmorrhage; it is, however, [illegible] a suspicious symptom, especially in connexion with others indicative of fracture. Yet this paralytic condition is not always an immediate sequence of the injury; it may supervene after the lapse of some days. In such case it seems more probable that this symptom may be due to inflammation; and it might be inferred, therefore, that it is not characteristic of fracture: but this would be an illogical conclusion, because the inflammation, if the cause of the paralysis, may have been induced by the proximity of a fracture. The following case illustrates this condition. A workman, in the employ of Mr. Penn, the engineer, was struck on the head by the revolving arm of a crane. He was quite insensible when admitted into the hospital, and in a state of collapse, bleeding profusely from the left ear. There were three scalp-wounds: one on the forehead, where the crane struck him, and two on the occiput, caused apparently by the fall. The hæmorrhage, which was abundant and arterial, continued for eight hours after his admission. On the fourth day he began to have transient gleams of consciousness, and then the bleeding from the ear recurred, and lasted for some hours. On the following day there were indications of facial paralysis on the injured side; this was limited to the muscles supplied by the portio dura. As the stupor diminished the paralytic condition became more decided up to the tenth day. The subsequent history of the case is replete with interest, and left but little doubt in my mind that there had been fractured base, accompanied by other serious lesion. The patient made a slow recovery; and when I saw him some months after he left the hospital, he continued feeble and incapable of exertion, with some hesitation of speech, though he had to a considerable extent, but not entirely, recovered from the facial paralysis. Serous oozing from the ear, which succeeded the bleeding, continued even at the expiration of the second month.

In singular contrast with the foregoing case, except in the special feature which induces me to cite it, is that of a young woman recently under my care. She was thrown from a cab, and it is presumed that she struck her head, though no indication of a contusion could be discovered. When brought to the hospital she was insensible, but not collapsed. On the following day, sero-sanguineous oozing from the right ear aroused suspicion, but there were no head symptoms, except drowsiness, to excite even anxiety. Facial paralysis gradually supervened, after the lapse of some days, but so imperceptibly at first, that it escaped notice unless specially looked for; there was also much tenderness over the mastoid process. Subsequently the right eye was inverted, and the intellectual faculties became torpid; and she died on the thirteenth day, in a state of muttering delirium; the temperature having risen to 106°2 Fahr., an hour before death. The *post mortem* examination revealed the presence of pus in the right posterior fossa of the skull. There was slight laceration of the left middle cerebral lobe, with some extravasation into the arachnoid at that spot; there was also fracture of the right petrous bone, taking a somewhat unusual course.

As the specimen is a recent one, I have placed it on the table, as a good illustration of this form of injury. The line of fracture extends from the posterior inferior part of the right parietal bone to the front of the base of the mastoid process; thence forwards and inwards in the long axis of the petrous bone, crossing the auditory meatus and tympanic cavity, and separating the ossicula. The membrane of the tympanum is torn, and the bony part of the Eustachian tube divided. I attribute the deafness and facial paralysis, in this instance, to the extension of inflammation, by contiguity, to the Fallopian tube.

From this class of cases, of which the preceding are typical examples, I conclude that facial and auditory paralysis is not necessarily indicative of fracture of the petrous bone, when unsupported by other confirmatory symptoms or signs; that, in combination with serous, or even sero-sanguineous discharge from the ear, the existence of fracture is very probable; and when both these signs coexist, with cerebral symptoms, either primary or secondary, there can be little, if any, doubt that there is fracture of the petrous bone. It is not, however, necessary that the signs of nerve lesion should correspond with the side on which the injury is received. I have the notes of one of my cases in which defective hearing and vision occurred on the left side, the blow having been inflicted behind and above the right ear. There was no paralysis in this case; but defective articulation and great hesitation in expression, which persisted for some months afterwards. This is a condition suggestive rather of extravasation of blood or some cerebral pressure, than fracture of the base.

I have never seen actual laceration of the seventh nerve; and probably this is a rare occurrence, and by no means necessary to account for persistent loss of function, even when the immediate sequence of injury to the head. Displacement of bone or extravasation of blood, and consequent pressure on the nerve are, in such instances, the more probable explanation.

Under what circumstances does fracture of the skull occur, at a spot remote from the part which is struck? And how far are we justified in forming an opinion as to the position of fracture in the base, from the part of the head on which the blow is inflicted? It cannot be affirmed that, for therapeutic purposes, such diagnosis is very important; but it is an interesting inquiry; and, as I believe it touches an error which has been generally accepted, I will venture to devote a short time to the consideration of the subject.

The doctrine of fracture by contre-coup has been generally taught, without, as it appears to me, satisfactory proof of its actual occurrence, or a sufficient consideration of the mechanical force by which it is supposed to be produced. Indeed, I think it may be questioned whether the term "contre-coup" is admissible in physics; certainly the conventional meaning which is attached to this adopted word in surgery is very loose, and does not bear a careful examination. It is employed to define the force by which fracture of the base is produced by a fall on the head; yet, in analysing the mode in which fracture occurs in this accident, we find that the application of the force is as direct as if the vault of the skull be driven in by a sledge-hammer. The plunge of the body is suddenly arrested by the vertex coming in contact with the ground; and the entire superincumbent weight, with the superadded momentum acquired by the velocity of the fall, is concentrated around the condyles of the occipital bone, and the central compartment of the base of the skull is thus broken across. Or, this result may be varied by the blow being received on the forehead or occiput; the anterior or posterior divisions being then, severally, more obnoxious to fracture. But it is surely incorrect to say that these fractures are the result of a "contre-coup." I do not cavil about the employment of the word in this sense, although I think it incorrect, provided the conventional meaning be clearly understood; and that an admitted lesion, albeit improperly designated, be not confused with an asserted form of injury, the reality of which I think it would be difficult to demonstrate in fact or experimentally.

It has been affirmed that a blow received on one side of the head may produce fracture on the other; or that a blow on the frontal bone may result in fracture of the occipital bone. The possibility of such an occurrence cannot be doubted, when the head is forced against an unyielding surface; under such condition, the side which is weaker or on which the force applied is more circumscribed or concentrated, would most readily yield. But, that fracture should result in the way described, without the existence of the condition mentioned, is opposed to sound reasoning, applied upon mechanical principles. The proposition that such might be the case, would probably assume the following form. As a consequence of force sharply applied to the side of a suspended hollow sphere, the *vis inertiæ* is overcome at the point struck, and some change of form is the consequence, converting momentarily the circle into an ellipse, or the sphere into a spheroid; the vibrations are, at the same time, propagated in all directions away from the point struck, and would proceed around the sphere, until they met in a kind of focus at the point exactly opposite, where they would neutralise each other. The result would be the conversion of a state of active vibration into one of rest; and, as a consequence of this sudden change, disruption of the vibrating body at a point diametrically opposite to that which received the impact of the force. Whether such a consequence would be likely to ensue, where the sphere or circle acted on is of highly elastic and homogeneous material, such as glass, I must leave to physicists to determine. But I would submit that it seems impossible that such an effect could be produced in the skin-clad skull, irregular as it is in form, made up of many segments, varying in density, and presenting anatomical characteristics specially designed to break up and neutralise such physical force as I have supposed to be in operation. Under these circumstances it cannot be credited that vibrations could be propagated with sufficient regularity to permit of any focus of neutralisation being found; and I cannot suppose any other hypothesis upon which the occurrence of such fracture can be founded. But, it may be remarked, the sphere is filled. Yet, if it is difficult to conceive that fracture could be produced in the way I have described, the supposition that fracture could occur as a consequence of the transmission of vibrations through the soft and inelastic brain-substance is still less tenable. If such fractures have ever been observed, they were probably produced under conditions unknown to the investigator.

It is true, as I have witnessed in several instances, that blood may be extravasated into, or on the surface of, the brain, at a distance from, or even precisely opposite to, that point on which a blow has been received. This is, no doubt, due to the vibration transmitted across and through the substance of the brain. When this vibration is suddenly arrested by the rigid skull, the adjacent portion of the brain and its membranes is subjected to a considerable instantaneous pressure, and the vessels give way. A similar effect is produced as the vibrations travel across from side to side: numerous small extravasations or blood-points are by no means infrequently met with in fatal concussion; and this condition was especially remarkable in a case, which I shall presently mention, of extravasation between the dura mater and skull, at a distance removed from the point of impact of the head against the ground. When the extravasation is distant from the point struck, in the course of the meningeal artery, and between the dura mater and skull, probably the rupture of this vessel is influenced, if not determined, by the vibrations of the skull; but the texture of the meningeal arteries is very thin and delicate; and they would yield much more readily, even to pressure, than arteries in other parts.

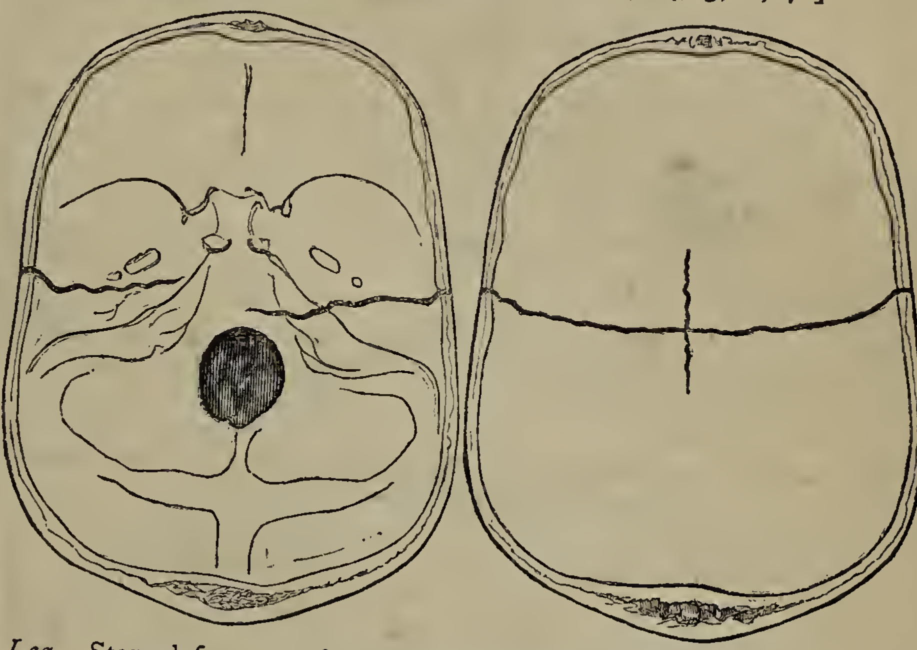
Whenever I have noticed a fracture or fissure of the skull, not directly communicating with the seat of injury, I have always found a ready explanation in the relative strength of the different bones subjected to pressure.

Thus, the frontal bone as low as the superciliary ridges, the occipital as low as the transverse sinuses, and the entire parietal bones, are denser and stronger than the roof of the orbit, the cerebellar portion of the occipital region, and the squamous plate of the temporal. Yet, all these parts of the skull are immoveably fixed in their position; and pressure applied to the vault, therefore, more readily fractures the weaker part to which the force is transmitted. Indeed, in some instances of fracture of the skull, the extent of injury to the base is so great as compared with that of the vault, as to indicate that the fissures in the latter must have spread from the base upwards, and not from the vertex towards the base.

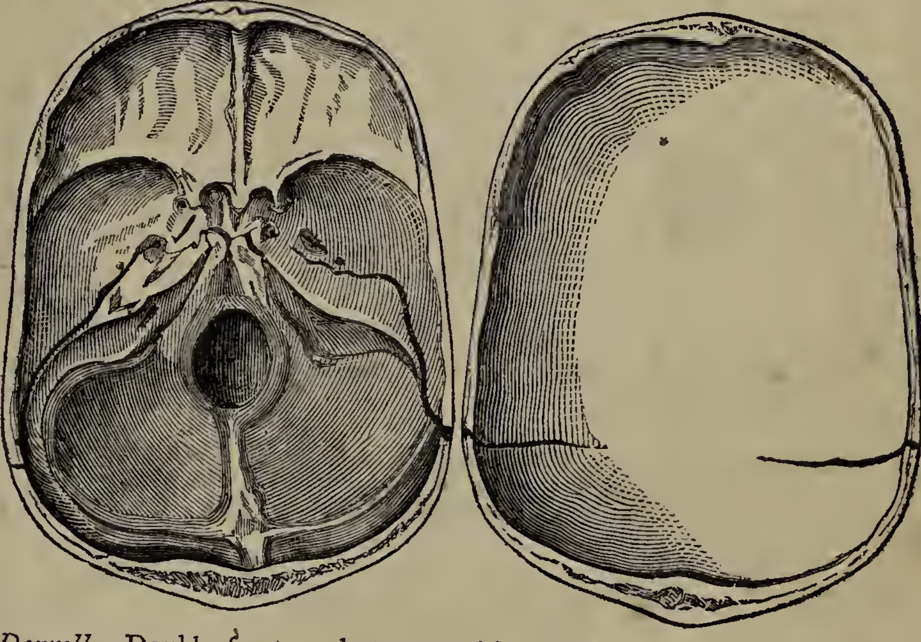
I think that the explanation I have suggested is sufficient to account for the phenomena which we meet with in complicated injuries of the skull, including laceration of the brain-substance; at least they are not inconsistent with the results of experiments on the dead body, nor with the consequences of physical force applied under analogous circumstances. If such be the case, we may discard as a fiction the assertion that fracture of one side of the skull may result from a blow received on the other, unless the head be forced against some resisting body. I have never met with such an instance; and I have failed to learn that other surgeons of extended experience, with whom I have conversed on the subject, have ever seen a case of this kind.

It is well known that a fall or blow on the vertex may be attended by fracture of the vertex, of the base, or of both. It may be interesting to examine how far the character of the injury may be inferred from the nature of the accident. I believe that the conclusions to which we should be led by a consideration of the mechanical conditions under which such fractures occur, are consistent with those which we realise in practice. Thus, if the injury be inflicted by the fall of a *hard* and heavy body on the vertex, this part would be fractured; and if the weight were not very great, the mischief might end there, as the resistance offered by the head may so far exhaust the momentum of the falling body, that the force would not be transmitted in sufficient amount to cause fracture of the base. But if the weight and momentum of the falling body were in excess of the expenditure of force in causing fracture of the vertex, the impulse would drive the head down upon the summit of the spinal column; and fracture of the base would result: in that case, mechanically viewed, the lower fracture would be successive to the upper. But, if the falling weight which struck the vertex were of a *yielding* material, fracture, if any, would be in the base, and not of the vertex, because the *vis inertiæ* of the skull would be overcome, and it would be driven down upon the spine, without the application of circumscribed force to the vault. The same reasoning applies when fracture of either the vault or base, or of both together, is the effect of a fall on the vertex. If the fall be on a hard and *resisting* surface, the fracture of the vault would precede that of the base; but if upon a *yielding* body, there would probably be fracture of the base, without fracture of the vertex.

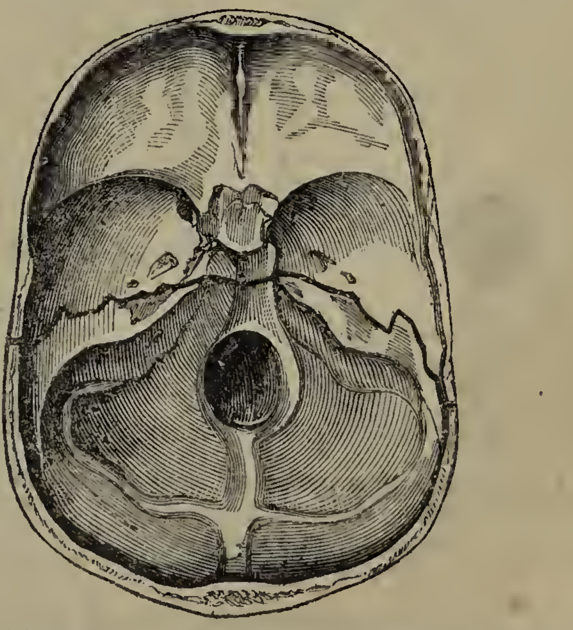
When fracture encircles the skull, vertically, it will generally be found to occur as the consequence of a perpendicular fall on the vertex, the head being jammed between the point of impact and the summit of the vertebral column. Sometimes, as in a case I am about to mention, the upper fracture is starred. Under these circumstances, the two lines of fracture usually, but not necessarily, intersect or run into each other. Whenever fracture of the base occurs, and fissures extend from it towards the vertex, but do not reach the point of impact which is indicated by bruising or laceration of the scalp, it may be assumed that the fracture has proceeded from below upwards. But when fracture extends entirely from the vertex to the base, the origin of the fracture may be determined, *post mortem*, by its relative severity, and the amount of displacement at the vault and base. Thus, when the base is fractured, and the vertical extremity of the fracture exhibits a simple fissure, which is gradually lost as it extends upwards, it may be concluded that the fracture originated in the base. [See Figs. 1, 2, 3, 4, 5, 6, 7.]



1. *Lea.*—Starred fracture of vertex and fracture of base. A beam, weighing 20lbs., fell thirty feet on the vertex.



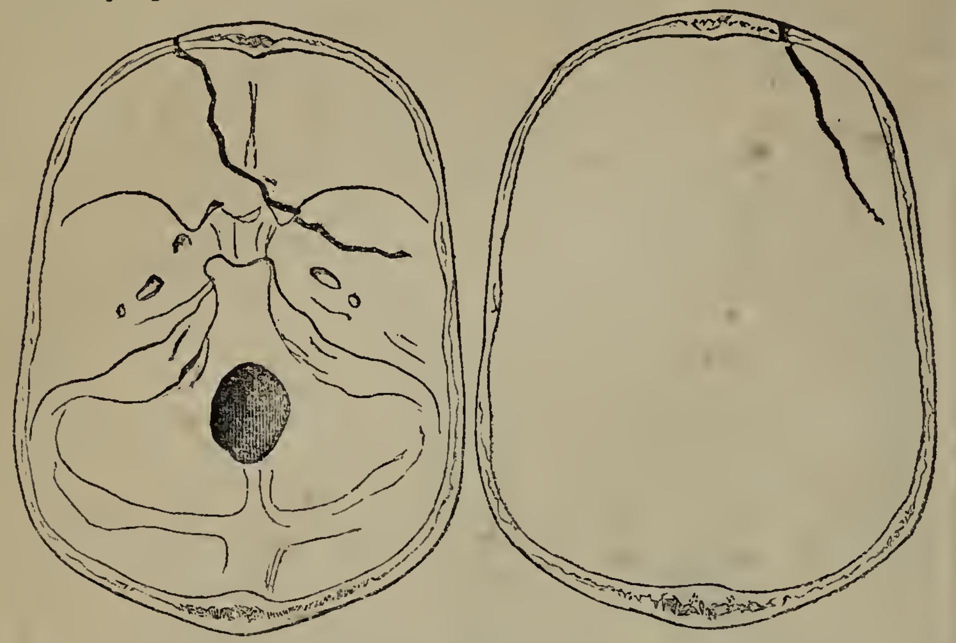
2. *Dorrell.*—Double fracture, but not uniting above or below Fell against a gate, striking the occiput on each side, probably between the bars.



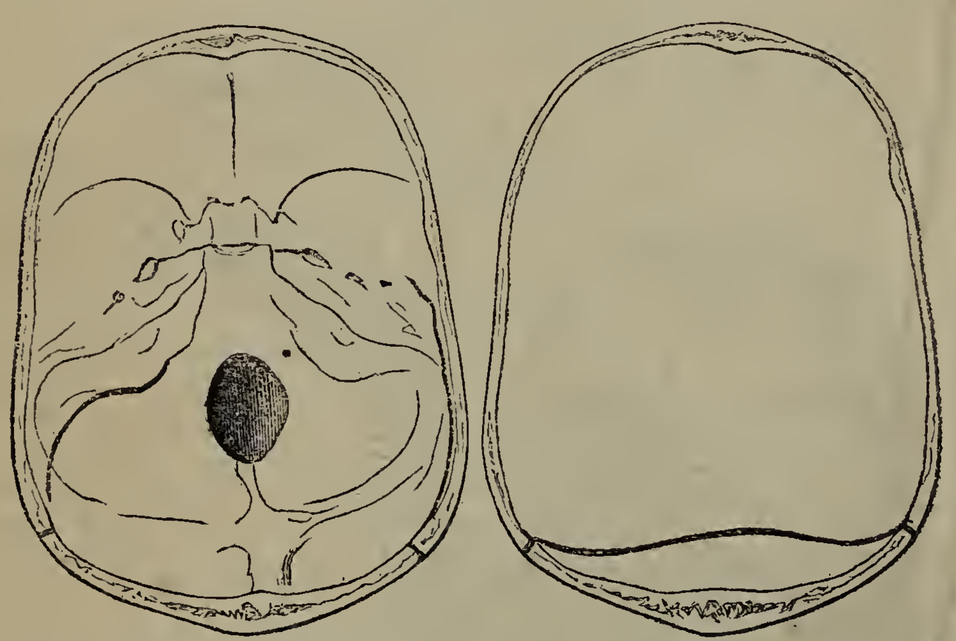
3. *Bird.*—Fracture of base only, on both sides. Fell forty feet on the vertex.

I have met with several instances which, like the following, seem to admit of but one explanation; viz., that fracture of the vertex and of the base simultaneously occurred as the result of a blow received on the former, and of irresistible compression of the latter against the summit of the spinal column.

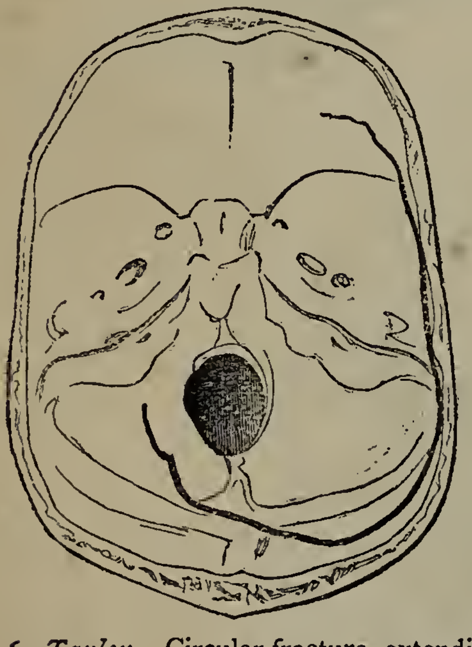
A bargeman, aged 51, was admitted under my care at the close of last year. A heavy beam of wood had fallen perpendicularly, thirty feet, on his head. He was insensible and in a state of collapse, but without the usual symptoms of compression, making an effort to sit up, though apparently unconscious when spoken to. In less than half an hour his pupils became inactive, stertor supervened, the surface of the eye became insensible, the pulse was 42, and the temperature sank to 95 deg. At the same time, puffiness over the parietal bone, which had before been observed, became more apparent. Reactionary hæmorrhage had occurred. He survived twenty-six hours, the face being flushed, the pulse rising to 128, the respirations to 40, and the temperature to 104.8, two hours before his death. Both vertex and base were found fractured. The upper fracture commenced as a fissure, just behind the coronal suture, and was crossed at its commencement, at right angles, by another fissure, constituting, in fact, a starred fracture. On the right side, this fissure extended downwards across the anterior half of the right parietal bone, and the squamous plate of the temporal bone; then backwards and inwards across the petrous bone, and partially through the basilar process of the occipital. The fissure on the left side took a similar course, but terminated at the middle lacerated foramen. Blood was extravasated on each side, between the dura mater and skull, opposite the squamous suture; there was also blood effused into the arachnoid and over the surface of the brain in considerable quantity. The under and outer part of each middle cerebral lobe was lacerated.

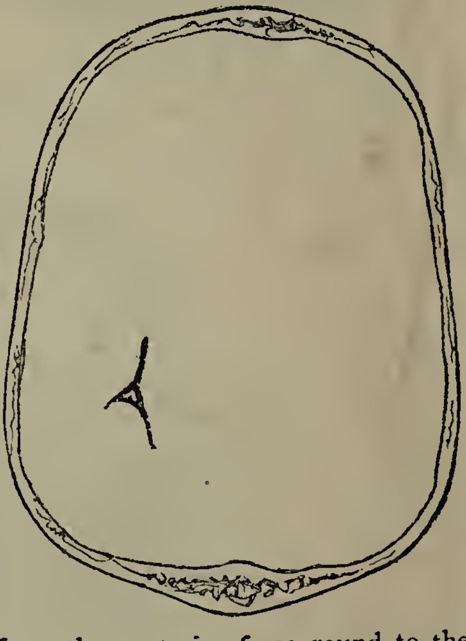


4. *Dodd.*—Fracture in anterior fossa. Was thrown from a cart, and struck the frontal eminence of the same side.



5. *Fearn.*—Fell from the top of an omnibus, and struck the left parietal eminence. Fracture across the posterior fossa, including the body of the sphenoid, and extending from left to right.



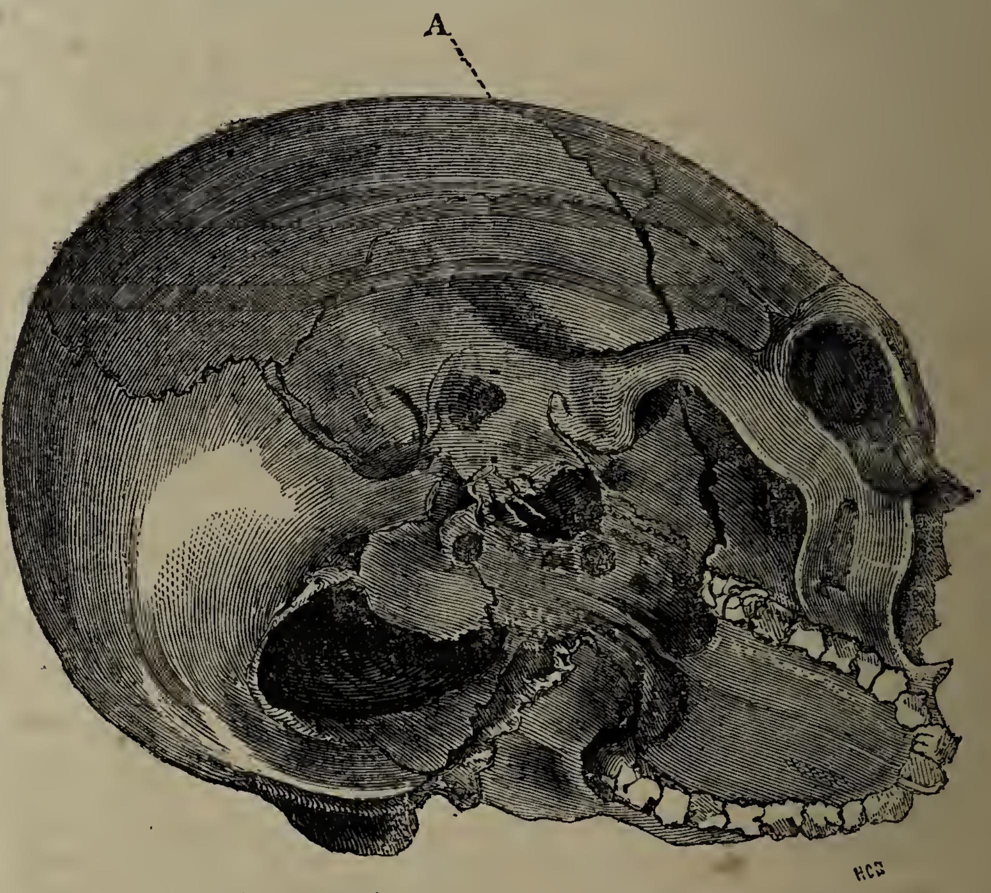


6. *Taylor.*—Circular fracture, extending from the posterior fossa round to the anterior. Nature of the accident unknown.

7. *Garnham.*—Fracture of vertex from a blow with a stone in a handkerchief. Recovery, after exfoliation of outer table.

This typical case exemplifies many points of interest, associated with the diagnosis of such injuries, and to which I shall have occasion to refer in my next Lecture.

The question of recovery after fracture of the base of the skull is necessarily one which rarely admits of demonstrative solution. Yet, the circumstantial evidence, based upon diagnostic characteristics which we are enabled to identify with these injuries, and upon analogy, amounts to proof little short of demonstration, that recovery from fracture of the base of the skull is by no means an infrequent occurrence. A simple fissure extending across the central compartment of the base of the skull —the most frequently fractured—is not liable to disturbance; and if the patient survive the first effects of the injury, there is no apparent obstacle to the cementing of the broken surfaces thus kept in close relation. Moreover, we know that such reparation does occur in fracture, as exemplified in the specimen I have here before me, in which a fissure had extended through the great wing of the sphenoid bone, and across the squamous portion of the temporal bone; thence passing backwards from the anterior inferior angle of the parietal, through that bone, to the coronal suture. The line of fracture is very distinctly marked on the exterior of the skull, but is scarcely perceptible in the interior.



A. indicates the line of fracture, as described in the text.

THE NEW LAW ON IMPROVED DWELLINGS FOR THE WORKING-CLASSES.—The last Act of Parliament passed in the late session enacts that premises can now be represented by four or more householders, and officers of health are to report, and, when required, the owners are to improve the dwellings, or to demolish the same.

PENNSYLVANIA HOSPITAL.—A new and commodious Hall for the purposes of Clinical Instruction is now in course of erection at the Pennsylvania Hospital. The ground floor is subdivided into a number of rooms, and a carriage-way runs through its centre. The hall or lecture-room is above, on the first floor. The structure is octagon in shape, each side having a length of thirty feet. The face and corners are neatly dressed with gray stone. The height of the building, which is to be surmounted by a small dome, is about fifty feet. The lecture-room is to be arranged in amphitheatre style, the seats circling it, save where the operating-table occupies the space, and gradually rising one above the other.

THE REMOVAL OF CANCER BY CAUSTIC ARROWS AND CARBOLIC ACID.[*]

By J. R. WOLFE, M.D., F.R.C.S.Edin.,
Ophthalmic Surgeon to the Aberdeen Royal Infirmary.

I wish to bring before the Association two cases of Cancer treated by caustic arrows and carbolic acid, both of which terminated favourably.

Case I. *Epithelial Cancer.*—J. B., aged 51, farm-servant, applied for advice at the Royal Infirmary, Aberdeen, in May 1867, on account of a tumour in the inner canthus of the left eye. The tumour was about the size of a large walnut, rounded in form, hard, inelastic, and nodulated to the touch, immoveable, being firmly attached to, and involving part of both eyelids, affected every now and then with attacks of lancinating pain. He stated that it began about nine years ago, in the form of a small wart at the inner angle; it remained nearly stationary for a considerable time, but some months ago it had begun to enlarge, and continued to progress rapidly.

On being told that it was malignant, and would require an operation for its removal, he left the hospital, and did not again present himself till July 3rd, at which time the tumour had begun to break up on the surface by ulceration; being covered with a crust, and having an ichorous discharge, of a slightly offensive smell, spreading and infiltrating the subintegumental tissue. Examined with the microscope, it presented the ordinary characters of epithelial cancer. The awkward situation in which it was placed rendering it difficult of removal by the knife, without producing cicatrices which would have given rise to considerable deformity of the eyelids, I had recourse to the following procedure.

Five openings were made with a broad lance, into which caustic arrows were inserted; one of these was in the centre of the tumour; the other four were in the healthy skin round its margin; and the neighbouring parts were protected by a patch of leather, having an opening cut in its centre of sufficient size to embrace the tumour. The whole was covered with a compress of dry lint and bandage. As the patient complained of no pain, nor any irritation, he was allowed to move about the ward as usual.

On the third day, the whole tumour came away, leaving a grey-coloured slough, which was detached in the course of twenty-four hours by the use of linseed-meal poultices. The surface now exposed was clean, and presented irregular elevations, which bled very readily. The gap left was so deep as to expose freely the inner wall of the orbit as far back as the middle of the eyeball. The surface was now painted with strong carbolic acid, and the whole covered by wadding dipped in glycerine. This treatment was continued for three days; by which time the bleeding elevations had disappeared, and the whole presented an uniform granulating surface. It was then covered with carbolised wadding dipped in glycerine; the dressing being changed every second day, and the wound washed with a weak solution of carbolic acid. Under this treatment, the gap filled up rapidly; and in a fortnight it was entirely healed.

In August, I exhibited the case at the meeting of the North of Scotland Medical Association; when the skin about the inner canthus and eyelids presented its natural appearance, and scarcely a trace of cicatrix remained to show that loss of substance of such an extent had occurred.

I had an opportunity, quite recently, of examining the patient, and found the cure complete. The only traces (and these only to be observed on minute inspection) are: a slight elevation at the inner angle, as if the periosteum there were thickened, and the obliteration of the tear-duct, which, however, does not give rise to any inconvenience.

Case II. *Cancerous Cyst.*—E. A., aged 68, domestic servant, was admitted into the Royal Infirmary, October 12th, affected with a hard tumour of the left inner side of the lower eyelid and cheek, measuring two inches and one-eighth in its largest diameter; of an oval shape, irregular and nodulated on the surface, and presenting the appearance of small abnormal vessels ramifying on its cutaneous surface, which was completely adhering. On puncturing it, there escaped a quantity of bloody serum and air-globules, which evacuation, however, did not diminish the size and hardness of the tumour. This fluid, when examined under the microscope, presented a mixture of cells and granules, but of so undecided a character as not to make it clear whether these were cancerous, or merely the products of an inflamed cyst; but the bulk of the tumour, etc., showed unmistakeable characters of malignancy. The tumour was removed by caustic arrows, as in the last case, and dressed with carbolic acid. The patient was discharged in eighteen days, scarcely any appreciable cicatrix being left, and still continues well.

Remarks.—The advantages of this mode of treatment appear, as far as two cases prove anything, to be the following.

1. It is painless. Patients walked about the wards as if nothing had been done, and complained of no feeling of pain or discomfort whatever.

2. The tumour is completely eradicated; and, under the action of the antiseptic, which acts in the first instance as a caustic to the diseased tissue, healthy granulations are produced, which completely fill the gap, and leave little or no trace of a cicatrix.

This method appears exceedingly valuable for removing tumours from regions where no skin can be obtained from the neighbourhood; and is also applicable to erectile tumours, nævi, cancer of the breast, etc., occurring in patients, places, or seasons of the year, when the use of the knife is to be dreaded.

On my mentioning the result of my cases to Professor Gosselin, he told me that for the last few years he had rarely used the knife for the removal of cancer of the breast in the Hôpital la Pitié, but regularly resorts to the use of the caustic arrows. The result is, that he does not now meet with cases of erysipelas, which used to be very common in his wards. He showed me several cases under treatment; but they were not sufficiently far advanced to enable me to judge of the appearance of the cicatrices, or to decide how much of the beautiful result above detailed is due to the carbolic acid and how much to the arrows; in short, to determine whether the same result might not be obtained by the use of the knife and carbolic acid.

The arrows employed I obtained from the Pharmacien of Hôtel-Dieu, Paris, who prepares them by dissolving chloride of zinc in a little water, making a saturated solution, and mixing it with sufficient starch to make a stiff paste, which is rolled into a thin cake, cut into shape, and dried at 212 deg. Fahr. Although elsewhere I have claimed priority in the use in this country of carbolic acid as a dressing for wounds, yet I by no means wish to undervalue the great service rendered by Professor Lister to surgery in the systematic employment of it. Having seen its employment in Professor Lister's wards in the Glasgow Infirmary, I may be allowed to bear testimony to the skill, care, and originality, with which his experiments have been carried out.

Although not strictly belonging to the subject of this Section, I may be permitted briefly to draw attention to a point alluded to in Case I. I have there stated that the obliteration of the lacrymal passage gave rise to no material inconvenience; and, adopting the ordinarily received doctrine that the tears are secreted by the lacrymal gland and removed by the lacrymal canals, sac, etc., one naturally asks why, in such a case, troublesome epiphora did not follow? But this view of the function of these parts has been shown to be erroneous by repeated experiments and clinical observations. Magendi and Martini[*] removed the lacrymal gland in animals, but found that the secretion of tears still continued. Cases where, in man, the lacrymal gland has been removed on account of disease, have been reported by Daniel O'Brian, Sir W. Lawrence, Graefe, and Paul Bernard; in all of which the conjunctiva remained moist, and in some even tears were secreted in such quantity, under irritation, as to flow down the cheek. It would appear, therefore, that the ordinary secretion is derived from the conjunctiva, and is not formed in larger quantity than can be got rid of by evaporation; while the lacrymal gland, like the salivary gland, to which it approaches in structure, secretes only periodically, and is intended to afford a large supply of fluid under the influence of irritation, when required to rid the ball of foreign bodies, as in cases of mental excitement.[†] Hence, xerosis is not the result of the removal of the lacrymal gland, but is produced when the conjunctiva is extensively destroyed by granulations, removal of the eyelid, and the like.

Experiments.—In 1863, I repeated in my class the experiments of Magendi, Martini, and Donders, by removing, in the right eyes of two rabbits, both the lacrymal gland and the gland of Harder, connected with the membrana nictitans. In both cases, the right conjunctiva remained as moist as the left, and, when dried by everting the eyelids and applying a dry cloth, became again moist in a few seconds. The application of irritants, such as ammonia, to the nostrils, produced precisely the same effect on the eye operated on as on the sound eye.

On two other rabbits, I removed part of both eyelids and of the membrana nictitans; and, in both, although the eye was protected, in the one by drawing the ear over it and securing it in that position, and in the other by a screen of wire-gauze, the cornea became opaque in the part thus left unprotected.

These experiments I have recently repeated, and obtained the same result. My special reason for touching on this subject is, the recent publication by Mr. Z. Laurence of some papers, in which he recommends the extirpation of the lacrymal gland for the radical cure of obstinate epiphora. The results of these experiments show, that the performance of such a formidable operation for that purpose would, in all probability, prove of little value; and, therefore, I take the liberty of suggesting the propriety of making further investigations on this point before adopting such a procedure.

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[*] Presented to the Surgical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

[*] *Von dem Einflusse der Thränen auf das Menschliche Auge.* Leipsic: 1844.

[†] Compare Professor Hyrtl's *Topographische Anatomie*, t. i, p. 128; also Kölliker's *Manual of Human Microscopic Anatomy*, p. 577.

SOME POINTS IN THE PATHOLOGY AND TREATMENT OF ACUTE CAPILLARY BRONCHITIS.*

By J. K. SPENDER, M.B., Bath.

ACUTE Capillary Bronchitis is a disease always serious and often fatal. It is common at different seasons, and among many classes of people; it may occur in the course of other chronic diseases. Its sudden ingress and rapid development entitle it to a careful clinical study.

Acute capillary bronchitis has had several synonymes. It is the *peripneumonia notha* of the older authors; the *acute suffocative catarrh* of Laennec; the *asthenic bronchitis* of Dr. Copland. The nomenclature which I use now is that adopted by the most recent writers; it seems to convey accurately what is meant, to wit, an inflammation of the terminal bronchial tubes—tubes nearest to the air-cells in size and function—followed by an exudation which more or less obstructs them.

I have been surprised by the comparatively little prominence given to this appalling disorder in the best professional text-books. Either it is scarcely noticed at all, or it is discussed as a variety of common acute bronchitis. The disease is certainly not very common, but it is by no means rare; and I now venture to plead the substantive entity of acute capillary bronchitis, and its claims to a distinct nosological position. Dr. Addison employed the term "capillary bronchitis" to signify the irritative action set up in the lung by tubercle; but it is obviously unwise to apply the same term to two diseases so etiologically different.

An adult person suffering from general capillary bronchitis of the acutest kind presents very well-marked symptoms: and, as might be expected, those that are most urgent belong to the respiratory system. (*a*) He breathes with extreme quickness; the pulse and breath ratio deviates from the norm sometimes so much as to be 2 to 1; ratios of $2\frac{1}{2}$ to 1, and 3 to 1, belong to the ordinary characteristics of the disease. (*b*) He coughs very often, and expectorates a light foamy sputum. (*c*) His skin has a dusky-purple tint, the intensity of which is commensurate with the blood-stasis in the lungs.

(*a*) Concerning the first of these symptoms;—the *rapidity of the respiratory act* is governed by the law so clearly laid down by Dr. Hyde Salter, that the urgency of dyspnœa is in direct proportion to the soundness of the lung-substance, free access of air being cut off to the functioning portion of the lung by obstruction of the air passages. And this formula applies with precision to the case of acute capillary bronchitis; for, according to the conditions of the problem, the physiological area of the lung is everywhere free and capable of fulfilling its duty. The dyspnœa is severe enough even in partial capillary bronchitis; but when the disease is more or less universal, we have every condition present for producing a difficulty of the most extreme degree.

(*b*) Concerning the second point specified—the *frothy sputa* with which the finer air-tubes are choked; I remark, firstly, that this exudation does not afford so complete an obstacle to the inspiratory and expiratory currents of air as spasm of the air-tubes. Narrowing of these tubes by spasm makes the breath-currents narrow, and therefore slow. The muscular element is prolonged to the terminal bronchia; but notwithstanding this, the respiratory movements go on at a tremendous pace, and produce the well known auscultatory phenomenon of coarse bubbling crepitation—like "squeezing a sponge half saturated with water." Next, I have to indicate the probable double origin of the sputum. It is, of course, partly a true exudation from an inflamed surface, and in the ultimate stage it contains pus-cells. But there is a transudation of serum into the bronchial tubes, arising, as Dr. G. Johnson has sagaciously pointed out, from engorgement of the bronchial veins; this engorgement being a sign and a consequence of a blockade in the pulmonary circulation. And there must be a very great disturbance of the pulmonary circulation when there is such terrible apnœa. If the pulmonary œdema, which so often occurs in the course of uræmia, is a true dropsy of the connective tissue of the lung—of the *inter*-tubular structure, in fact—then the transudation of serum from congestion of the bronchial veins is an *intra*-tubular dropsy, a dropsy of the true "parenchymatous" sort; and often not less fatal.

(*c*) The *dusky hue of the skin* is sometimes loosely called cyanotic. I submit, however, that the term "cyanosis" ought to be restricted to regurgitation of imperfectly aerated blood from heart-distress, and not to mere stasis caused by difficulty in the lung. Not quite two years ago, I had under my care a case of typical cyanosis in the person of an otherwise healthy young woman, the daughter of a farmer living near Bristol. The whole stress of the matter seemed to arise from a slight narrowing of the pulmonary artery (without lesion of its valves), which a dilated and weakened right heart had not power to overcome. The entire face looked as if smeared with black currant juice of the deepest dye, the lips being fearfully crimson. The dyspnœa was most intense. Now this was a true cyanosis; and the absence of any irretrievable cardiac malformation was proved by the perfect success of a ferruginous treatment, which imparted tone to the right heart, and restored the natural tint to the complexion in a few months. Compare this with the mere dull purple colour developed by capillary bronchitis and other analogous affections of the lungs, and the difference is sufficiently conspicuous to be diagnostic.

The compound condition known as "collapse" is very marked in acute capillary bronchitis. The skin is cold and sweating; the bowels are confined; the urine is turbid and very scanty. The likeness of this condition to what happens in cholera, and during a paroxysm of asthma, is evident enough.

A few words on *diagnosis*. It might be summarily asked—Is there any disease which can be possibly confounded with acute capillary bronchitis? Listen to this short story. One day last winter, there was brought to me at the Eastern Dispensary, Bath, a young girl who was wheezing, panting, and purple. Before asking the mother (who accompanied her) a single question, I said to myself—Is this child suffering from capillary bronchitis, acute tubercle, or mitral regurgitation of heart with secondary lung-disease? I ordered her home, and examined her in bed the same evening. A glance at the thermometer decided the matter; the temperature was above 103 deg., and the child was dead within three days. But I was almost amazed at the similitude of many of her objective signs to those of capillary bronchitis: the main points of unlikeness being the very scanty sputa (mixed with a little blood), and the decided heat of skin. And the history of the case was very distinct in its indications of tuberculosis.

A person who has suffered severely from capillary bronchitis is often long in recovering the usual bright florid hue of skin. You may see him all the next summer carrying about a sure legend of the peril he has undergone; he looks metallic and dull, and is chary of any swift exertion. He has been smartly hit in a vital point, and he dreads what the next winter may bring forth. Influenza is perhaps one of the most serious epidemic maladies which he has to fear. There is usually some emaciation. Capillary bronchitis in children is always a most dangerous disease.

TREATMENT.—We start from the postulate, that capillary bronchitis is often amenable to skilful and decisive treatment, if it be begun early enough. The pathological picture which has been drawn is rather dark, but by no means discouraging. Certain landmarks stand boldly out, which we may follow without hesitation.

On Sunday morning, April 14, 1867, I was asked to see a labouring man, a patient of the Eastern Dispensary, Bath, who was in the collapsed stage of this disease. Every feature was well marked, and he seemed in great danger. My internal remedies were—a table-spoonful of brandy every two hours; five grains of sesquicarbonate of ammonia every two hours, alternately with the brandy; and a small quantity of fresh cold milk whenever it could be taken. My external remedies were—a warm atmosphere rendered moist by steam; and a hot linseed-meal poultice over the whole of the back of the chest. In the evening he was better; the skin was warm, the dyspnœa less urgent, and the urine less scanty. The same means were continued with the same success. He improved day by day; he gradually took strong broths and less and less alcohol, and within a week was rapidly convalescent.

In some excellent clinical remarks on Capillary Bronchitis written some years ago by my friend Dr. Hyde Salter, he objected to using alcohol in this disease, on the ground of its giving the lung more eliminatory work to do during an emergency when physiologically it ought to be kept quiet. My apology on the other side must rest on the facts so clearly substantiated by Drs. Anstie and Inman, that (*a*) alcohol affords a positive dynamic support to the nervous system; and (*b*) it is a temporary food which sustains vital function until more complex compounds can be appropriated. And all *à priori* objections vanish before the favourable test furnished by actual experience.

Concerning sesquicarbonate of ammonia, I am amused by the divergent opinions which prevail among my medical friends about this drug. I know two physicians, one of whom literally prescribes it for almost everything; and the other as unqualifiedly declares that he has no faith in it for any curative purpose whatever. Adopting a kind of middle view, I incline to the doctrine that this salt is a valuable therapeutic auxiliary to other measures when we have to contend with certain forms of bronchial distress. I am sure of its capability to do good service in the proper asthenic bronchitis of old people. I claim for it no higher virtue, because I know our proneness to call any drug a *specific* which we know particularly well how to work with.

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* Read in the Medical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

I would beg special attention to the absolute mortality of the smallest quantity of opium, and to the still more destructive effects of morphia.

If a patient be teased by residual catarrhal sputa, a short mercurial course will clear it away; and after that (or even at the same time) an iron tonic will help to restore the general health.

Great care must be taken at all seasons of the year that the skin is properly protected.

To recapitulate: I would specify the following points as deserving notice in the clinical history and management of Acute Capillary Bronchitis:—

1. The extraordinary pulse and breath-ratio, and the intense dyspnœa.
2. The pathological origin and character of the sputum.
3. The quasi-cyanosis of the skin, together with the so-called "collapse."
4. The occasional indistinctness of the diagnosis from acute tubercle.
5. The necessity of a supporting and alcoholic treatment.

ON DIVISION OF THE STRICTURE IN STRANGULATED HERNIA.

By THOMAS DARBY, F.R.C.S.I., Bray, Ireland.

THE mode of dividing the stricture when performing the operation for the reduction of strangulated hernia has been much dwelt upon, and we are cautioned not to divide it too freely; but I am not aware that it has ever been suggested to not divide it at all. Having succeeded in reducing the hernia without dividing the stricture in six cases after the sac had been opened, I beg leave to submit a short account of three of those cases so treated by me.

CASE I.—Stephen Manly, aged 80, was admitted to the Rathdown Union Hospital, on August 22nd, 1862, suffering from a strangulated hernia in the right groin. I operated; when the sac was opened a considerable quantity (probably not less than from ten to fifteen ounces) of brownish serum gushed out, and a knuckle of small intestine was exposed to view in the bottom of the sac; I introduced a director into the stricture, and as I passed it round the neck of the hernia, the bowel returned into the abdomen without further manipulation. It is here necessary to state that, for forty-eight hours after admission to hospital, Manly refused to submit to the operation, and that during this interval he had been placed under the influence of chloroform, had the tobacco enema administered, and the taxis carefully applied without avail. He recovered.

CASE II.—Jane Barrett, aged 70, the subject of old reducible femoral hernia on both sides, was admitted to Hospital June 10th, 1863, with the hernia in the right groin strangulated. Taxis having failed, I laid open the sac, and exposed a portion of omentum and a considerable coil of small intestine in a state of strangulation. I carried the director completely round the neck within the stricture (a practice recommended by the late Dr. Hutton of Dublin), and by careful manipulation, succeeded in returning the entire mass to the abdominal cavity. This woman recovered.

CASE III.—Anne M'Loughlin, aged 30, was admitted to hospital on October 4th, 1865, with a strangulated hernia in the right groin. I opened the sac, and reduced a coil of small intestine without dividing the stricture, although it was so tight that considerable difficulty was experienced before I could pass the director round the constricted part. This woman also recovered.

It is not merely on account of these cases having recovered after operation that I have selected them for this paper, but rather because each case differed from the other in some feature of practical interest; for example, in Manly's case, it is not easy to understand why symptoms of strangulation presented, or why the elaborate attempts at reduction should have failed in a case where the bowel, after the sac was opened, may be said to have returned of its own accord; in Barrett's case, the contents of the sac were large, solid, and complex, yet no great difficulty was experienced in returning them; and, in M'Loughlin's case, where the constriction was very severe, it was found possible to return the bowel without dividing the stricture.

That instances will occur where old adhesions, gangrene, or some other circumstance may render the division of the tendons necessary, there can be no doubt; and in such cases it will be also necessary to open the sac. If, therefore, we take into account that the sac *must* be opened in the worst cases; that peritonitis is not the cause of death in the majority of those cases which terminate fatally after operation; that the fear of peritonitis does not deter surgeons from opening the abdominal cavity in the treatment of other diseases; and, on the other hand, if it be borne in mind that all danger of wounding an artery is avoided; that the tendons are left uninjured by the surgeon; that the operation is much simplified; and that in cases of recovery the patient is in all respects as well and as little liable to inconvenience from the rupture as he was before strangulation took place, the advantages of reducing hernia without dividing the stricture—the practicability of which is sufficiently proved by the foregoing cases—will be made manifest.

THE CURABILITY OF LATERAL CURVATURE OF THE SPINE.*

By WILLIAM ADAMS, F.R.C.S.,
Surgeon to the Orthopædic Hospital.

THE curability of lateral curvature of the spine is, at the present time, one of those unsettled questions which urgently demand the attention of the profession; and I now venture to submit some conclusions at which, from observation and experience, I have arrived, in reference to the curability of this affection.

In order to bring this subject forward in a definite manner, I propose the two following questions; viz., 1. In what cases is lateral curvature of the spine curable? and 2. What are the directly curative means?

As a starting point, I would particularly insist upon the fact, that no confirmed or persistent curvature of the spine, however slight, can exist merely as a functional affection; but that in every instance a spinal curvature is necessarily associated with, and dependent upon, certain structural changes, proportionate to the degree of curvature and its duration. It is of the utmost importance to recognise this fact, because lateral curvature is generally described as being, at least in the early stage, a functional affection depending upon muscular debility, or the undue action of certain muscles which have been called into play by some occupation, or some acquired habit. There can be no doubt that, in such cases as these, there is often some appearance of curvature, such as may be produced by any person in certain attitudes; but a careful examination will show that no persistent deviation of the spine exists. There can be as little doubt, however, that such cases have often been treated as cases of lateral curvature, and of course with great success under various methods of treatment.

A broad and distinct line must be drawn between any such functional conditions—or, as they may be called, functional or physiological curvatures—and the confirmed or persistent curvature of the spine, which, however slight, is necessarily associated with structural changes. A ready and certain means of diagnosis is of the utmost practical importance, in reference both to the treatment and the prognosis of the case.

The ordinary method of examination for forming a diagnosis is by passing the finger down the spinal column, and tracing the apices of the spinous processes; but this is fallacious, as the spinous processes may deviate laterally in a case of simple debility, without actual curvature; and on the other hand may remain in a straight line, whilst the bodies of the vertebræ have deviated to a considerable extent, so as to form a large internal curvature, associated with considerable alteration in the relations of the ribs in the dorsal region, and of the transverse processes of the vertebræ in the lumbar region.

In all cases of the so-called lateral curvature of the spine, the primary and essential deviation takes place in the bodies of the vertebræ, which are found to move laterally in the direction of horizontal rotation, so as to give a spiral twist to the portion of the spinal column involved. The result of this is to cause a projection backwards of the angles of the ribs in the dorsal region, or bulging on the side of the convexity of the curve, and a corresponding depression or receding of the ribs on the concavity of the curve. In the lumbar region we have also a projection backwards of the transverse processes of the vertebræ which render prominent the lumbar muscles on the same side; and on the opposite side the transverse processes are depressed, so as to leave a hollow in the lumbar region, and allow a prominence of the crest of the ilium, and an apparent enlargement of the hip.

Upon these conditions I rely as a positive test of the existence of those deviations and structural changes which essentially exist in all cases of persistent or confirmed lateral curvature, however slight. In slight cases, these deviations will be made more apparent by placing the patient in a stooping position, and in practice I always adopt this mode of examination.

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* Read before the Harveian Society of London.

As the curability of lateral curvature must depend upon the nature and extent of the structural changes, and as the only solid basis of any method of treatment must be an accurate knowledge of the morbid conditions, too much importance cannot be attached to the pathology of this affection; and we must inquire, What structures are necessarily involved, and what is the nature of the structural changes? These inquiries, moreover, must have especial reference to the early stage of the affection; as, in cases of long duration, structural changes affecting the bones, cartilages, ligaments, and muscles connected not only with the spinal column, but with the ribs, have been frequently demonstrated by dissection.

Those who still believe that lateral curvature is, at least in the early stage, essentially a physiological condition, depending upon some disturbed balance of muscular power, such as the excessive use of the muscles of one arm, increased development of certain muscles from various occupations, or, according to the theory of M. Guérin, upon active muscular contraction, will not readily admit that structural changes affecting the intervertebral cartilages and the articulating processes exist, except at a late period of the affection. On the other hand, I consider it to be a well established fact, that no lateral curvature of the spine, however slight, can exist as a fixed or persistent condition, without rotation of the bodies of the vertebræ having taken place; this indeed is, in my mind, the essential condition of lateral curvature, and it is equally certain that in this horizontal rotation of the bodies of the vertebræ, the intervertebral cartilages and the oblique articulating processes suffer from undue mechanical pressure. *The intervertebral cartilages*, in the centre of the curve, gradually become wedge-shaped from unequal and long continued compression; and the *articular surfaces of the oblique articulating processes* become altered in their direction. This latter change is most conspicuous in the lumbar region, where the articulating surfaces are nearly vertical, and face directly inward and outward, being evidently so arranged with the design of limiting, to an extreme degree, any lateral motion in this region. There can be no doubt that this change occurs in all cases, in proportion to the extent of the curvature.

The bodies of the vertebræ also suffer from unequal and long continued compression, and become wedge-shaped in the centre of the curve. I have seen this condition in cases of slight lateral curvature which have existed for some years; its occurrence is evidently dependent more upon the duration than upon the extent of curve.

The ligaments of the spine have been in most books erroneously described as elongated on one side, and contracted on the other, in cases of lateral curvature, as we know they are in cases of deformity occurring in the moveable articulations, such as the knee, etc.; but there are no ligaments along the sides of bodies of the vertebræ which would at all correspond to any such description, and the ligamentous bands connecting the bodies of the vertebræ and crossing the intervertebral cartilages, are simply adapted in their length to the altered thickness of the intervertebral cartilages with which they are connected.

In the muscles connected with the spinal column, no structural changes have been detected in the early stages of lateral curvature, nor probably should we expect to be able to trace any, even though the deformity were supposed to depend upon the undue action of any particular set of muscles, unless in some cases of curvature occurring in the course either of some paralytic or spasmodic affection, which would entirely remove the case from the ordinary form of lateral curvature which we are considering. In all severe cases of lateral curvature of long standing, however, the spinal, intercostal, and abdominal muscles have been found in different degrees of atrophy and fatty degeneration from disuse.

Of the various structural changes which I have enumerated, there can, I think, be no doubt that those which occur first in the order of time are, unequal compression of the intervertebral cartilages, and alteration in the direction of the articular surfaces of the oblique articulating processes. These changes, I believe, occur simultaneously; and, at the time of their occurrence, the curvature may be said to become persistent, or confirmed; in fact, when they occur, the case becomes at once distinguished by a broad line from cases of *weak spine*, or, as they may be called for description, functional curvatures apparent only in different attitudes, and generally dependent upon muscular debility.

To be able to determine precisely, during the progress of a case of lateral curvature, the exact period at which structural changes commence, and also to be able to determine precisely the extent of these structural changes, are two points to which I have devoted much attention. Both these points, I believe, I have satisfactorily determined; and, as the extent of the structural changes can be accurately ascertained by the extent of the rotation, we have thus acquired a knowledge of facts which materially aid us in forming an opinion as to the curability of the affection.

Assuming, then, the existence of certain structural changes produced by undue mechanical pressure, the question must be asked—To what extent, and under what circumstances as to age, duration, etc., do these structural changes admit of being repaired by the efforts of nature, when the producing cause, viz., mechanical pressure, is removed?

The first point to bear in mind is, that these are no structural changes of disease; no inflammatory, ulcerative, or destructive processes; but that such structural changes as exist are the result simply of undue mechanical pressure, producing some alteration in form by atrophy and absorption. And the second point is that, in the normal condition of the spinal column, nearly one-fourth, or certainly between a fourth and a fifth, of the total length of the moveable portion of the column above the sacrum, is composed of elastic intervertebral cartilage. Professors Quain and Sharpey state the proportion as about a fourth; but the measurements of other authorities make it rather less. We also know that it is principally from the compression of this intervertebral substance that we all vary in height when measured at night and in the morning. This variation I have frequently found to range between half and three quarters of an inch. It is clear then that, when evenly compressed, as during the erect position in the day time, the intervertebral cartilage recovers by its elasticity, during the night, when the mechanical cause of compression is removed, that which it has lost in the day time.

In lateral curvature, therefore, when the intervertebral cartilage has not been too long compressed, and become altered in structure by atrophy and absorption, we may expect that it will recover; but its complete recovery must have reference both to the age of the patient and to the duration of the curvature. In youth, during active growth, the greatest amount of recovery may be confidently expected; but some improvement may be looked for even when growth is impeded, as in some thick-set, muscular girls. After the completion of growth, less perfect recovery can be looked for, as all spinal deviations tend to become permanent and incurable, in consequence of a series of adapted structural changes in the structures involved.

With regard to the articular surfaces of the oblique articulating processes, we cannot expect to find in them the same capability of spontaneous recovery, when they have suffered from mechanical pressure so as to become altered in their direction, as their surfaces are covered only by a thin layer of fibro-cartilage. Nevertheless, during active growth, when ossification is incomplete, we may fairly expect that these processes will recover their normal form and direction, if the mechanical cause of compression be removed for a sufficient length of time; and this is to my mind an unanswerable argument in favour of recumbency, as an essential part of the treatment in every case of lateral curvature, in which either improvement or cure can be anticipated.

We have, then, good reason for believing that the structural changes in lateral curvature, when of moderate extent and not of long duration, are capable of being repaired by the efforts of nature during the period of growth, if the mechanical cause of unequal pressure be removed. It remains for us then to inquire:—By what means may this reparative process be assisted by the treatment adopted?

That which most completely fulfils the indication of removing the mechanical cause of unequal pressure upon the intervertebral cartilages, and the oblique articulating processes, is recumbency. The *modus operandi* of this has been already explained. In all cases of lateral curvature, therefore, occurring in young people, when there is hope either of cure or of much improvement, I employ recumbency by means of a reclining chair with a desk adapted, so that this position may be assumed during the hours of education. I consider that six hours during the day—taken at separate times—is sufficient time to be passed in this partially recumbent position.

Next to removing the total weight by recumbency, we have in the improved mechanical appliances, or spinal instruments, the means of diminishing the irregular distribution of weight upon the spinal column when curved. In other words, we have the means of employing a directive force of balance, which would lessen the irregular distribution of weight in a curved spine. But, beyond this, we are also enabled to exert a direct mechanical force upon the part of the spine curved; and if this force be properly exerted, and regulated by the surgeon, there can be no doubt that a diminution of the curve will result. According to my observation, recumbency and mechanical support are the only two curative means at the disposal of the surgeon.

Gymnastic exercises cannot in my opinion be considered as curative in fixed or persistent curvature, with structural changes, however slight; but there can be no doubt that they may be regarded as curative in cases of weak spine, or in functional curvatures; and also as preventive, in the sense of preventing a weak spine from becoming a case of confirmed curvature. When there is no evidence of structural changes, I rely upon gymnastic exercises, combined with partial recumbency.

If, when a girl is examined in the stooping position, we find that, in the dorsal region, the scapulæ and the angles of the ribs on each side are symmetrically placed with respect to the spinous processes; and if in the lumbar region the two sides be symmetrical; then I decide against mechanical support, and in favour of gymnastic exercises and partial recumbency. If, on the other hand, in the stooping position, there be a decided bulging of the ribs, or of the lumbar muscles on one side, with depression on the other; then I decide in favour of mechanical support combined with partial recumbency.

I have now endeavoured to define the limits within which lateral curvature of the spine may be considered as curable, and also to point out the means which, in my opinion, may be safely relied upon as directly curative. The general result is, that in the ordinary forms of lateral curvature there is a stage in which it is possible to effect a complete and permanent cure; but this stage of curability is of limited duration, lasting probably not more than one or two years. It belongs to the early stage of the affection when the structural changes are slight and recent, and when we have youth and growth in our favour. If this opportunity of curing a spinal curvature be lost, the patient must take the chance either of spontaneous arrest of the curve, which occurs in some cases in which the curves are about equal in length; or of increase of the curvature with deformity and loss of health. The only possible benefit under these circumstances will be to arrest the progress of the curvature and remove the cause of pain, which may generally be accomplished by mechanical support.

Other means than those referred to have been recommended by different authorities, such as cutting the spinal muscles, first introduced by M. Guérin, and which is now being revived in this metropolis by some surgeons. But claims of this, together with other methods of treatment, I have, in my work on *Lateral Curvature of the Spine*, analysed, and rejected as curative means; and the limits of this paper would not admit my entering upon the subject on the present occasion.

CLINICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

ACUPRESSURE.

By J. P. Swanton, M.D., Bantry.

While acupressure is *sub judice*, it may be interesting to Sir James Y. Simpson, and those able men who are workers with him in trying to ameliorate human suffering, to know that, through the medium of our valuable Journal, the subject is attracting favourable attention.

An opportunity was lately afforded of testing those principles, which appear so easy of application and so reliable. A middle-aged woman desired the removal of a malignant tumour of the breast. In many respects, the case was unfavourable for operation; the disease had existed for several years; the tumour was for some time ulcerated in two or three places, and the axillary glands were decidedly implicated. However, at her urgent request, and in the hope of giving a longer period of comfort, it was decided to remove the offensive mass. Chloroform was given, and acted admirably. Two vessels demanded attention. Needles were used, according to the fifth method (twist); and though the first attempt was not effectual in completely arresting the flow, they were immediately removed, and a larger portion of the vessel secured. A smaller vessel required torsion. Our old acquaintance, the ligature, was at hand, but was not called into requisition. After leaving the wound, a very considerable one, open for some hours, and applying cold water, the edges were brought together by silver wire, and wet lint applied, covered with a light bandage. In forty hours, the wound was dressed. One needle came off with the lint; the other required no force. The union was most satisfactory along the line of the wound, with the exception of the track of the needle, where a few drops of pus appeared. The sutures were removed at the same time, and adhesive plaster applied to keep the parts *in situ*. Unfortunately, in the next twenty-four hours, erysipelas of a severe character attacked the skin over the axilla, and soon affected the wound; the healing process was arrested, and the wound gaped. Now, at the end of a fortnight, it is healing favourably; the erysipelas has subsided; and I trust the patient will soon be able to return to her home.

Should another opportunity be afforded, I certainly shall try acupressure again, as I believe it to be worthy of a fair trial; and, in this case, the steps of the operation, except the introduction of the sutures, were almost painless, thanks, under Providence, to Sir James Simpson.

ON THE CONTINUANCE OF THE MAMMARY SECRETION WHEN THE URINE IS SUPPRESSED IN CHOLERAIC COLLAPSE.

By WILLIAM SEDGWICK, M.R.C.S. & L.S.A.

Among the many difficulties attending the investigation of choleraic collapse, there is, perhaps, none more perplexing than the fact of the mammary secretion being uninterrupted when the urine is suppressed; and it has been only during the later epidemics of the disease that there has been any attempt to give a scientific explanation of what has been very commonly regarded as a pathological paradox. With reference to this subject, it may be remarked, that two theories have been lately advanced by distinguished writers on cholera, one of which is based on a finely adjusted hyperæmia of the sympathetic and spinal nervous systems, and the other on the chemical composition of the secretions; but both of these theories appear to have failed to gain the approval of the medical profession either at home or abroad. The fundamental error in both of them is traceable to a supposed necessity for physiologically classifying the urinary and the mammary secretions together; in consequence of which, it seems to have been very generally, though for the most part tacitly, assumed that, in other diseases of a less abnormal character than cholera, an arrest of the urinary secretion during collapse would involve a corresponding arrest of the secretion of milk. So complete, indeed, has been the failure hitherto to account for the continuance of the mammary secretion during cholera collapse, that M. Desnos (*Nouv. Dict. de Méd. et de Chir. Prat.*, tom. vii, art. "Choléra Asiatique", p. 418: 1867), in one of the latest and most elaborate articles on cholera which has been published in France, although he has cited both of the writers above referred to, yet passes over their theories about the continuance of the mammary secretion without notice, and merely ventures to remark that "it is curious to see that, in a pretty good number of severe cases of cholera, in the midst of this frightful disorder of all the functions, the lacteal secretion is not dried up; and that the menstrual flux is not arrested in its course." In this short paragraph, M. Desnos appears, however, to have approached nearer than he was aware to a solution of the difficuly; for the occurrence of the mammary secretion during cholera collapse, when, for example, the urinary secretion is totally suppressed, is undoubtedly due to the former being associated with the reproductive function, whilst the latter is associated with nutrition. Consequently, the influence of cholera on lactation must be studied in connexion with the influence of cholera on menstruation, on pregnancy, and on the life of the fœtus itself, before it would be allowable to theorise on the continuance of one secretion, and on the arrest of another. When thus studied, it will be perceived that the occurrence during cholera of the mammary secretion is in no respect exceptional; for, as regards the reproductive functions generally, there is satisfactory evidence to prove that menstruation may, like the mammary secretion, occur during the algide stage of the disease, without being either delayed, diminished, or checked; that the liability to abortion is, for the most part, limited to the early periods of pregnancy, and that the blood lost on such occasions is not unfrequently florid; and that, towards the full term of pregnancy, not only does the liability to abortion usually disappear, but that the life of the fœtus may be fully maintained during a prolonged algide stage of cholera, and even after the life of the mother has apparently ceased.

The influence of cholera on the mammary secretion itself is to be regarded as not simply negative in permitting, as it were, a little milk to be secreted when the circulation fails and the urine is suppressed, but it has, moreover, the effect of so far positively increasing this secretion, that the mammary glands sometimes become painfully distended during the algide stage of the disease, and gorged with milk before death. This appears to have attracted notice very early in the history of cholera; for Mr. T. M. Greenhow (*Cholera as it has recently appeared in the Towns of Newcastle and Gateshead*, 1832, pp. 44-46) recorded, in 1832, the case of a woman, aged 42 years, who was nursing a child of eighteen months old when attacked by the disease, from which she died on the second day. "The secretion of milk," he informs us, "continued during her illness, [and the] breasts became gorged before death." The pulse in this patient failed early in the attack, and the urine was throughout totally suppressed. In commenting on the mammary secretion during collapse, Mr. Greenhow remarks, that "the same fact has been noticed in other cases"; and he cites the evidence of Mr. Frost and Mr. John Fife, who had met with similar instances. Mr. Henry Bird (*Lancet*, Oct. 27th, 1832, p. 147) has recorded that a cholera patient under his care, "in a state of perfect collapse, and who was suckling an infant, had not the secretion of milk in the least degree impeded." Magendie (*Leçons sur le Choléra-Morbus*, 1852, pp. 27-28) about the same time, in Paris, had occasion to order the breasts to be drawn during the algide stage of the disease, in consequence of over-distension with milk, which caused pain. In later times, frequent allusion has been made to the subject, both in our own and in much of the foreign literature of the disease. The celebrated Professor Betti of Florence (*Sul Còlera Asiatico che contristò la Toscana nelli anni* 1835-36-37-49, Firenze, vol. i, p. 264: 1856), has referred to cholera patients in whom "the secretion of milk continued so abundant for all the algide period, and for some of the period of reaction, that it consequently became necessary to adopt the customary expedients for checking the pain in the breasts of the lying-in women;" and he has specially recorded the case of a woman whom he saw in consultation with Dr. Chiorini, "in whom the secretion of milk persisted in such abundance that it became necessary to draw it off." Dr. E. A. Parkes (*Med. Times and Gazette*, Aug. 25th. 1866, p. 211) has recorded the case of a woman who died after thirteen hours' illness, in whom the breasts were "as turgid as if she had not suckled for thirty-six hours;" and, in the cholera cases under the care of Dr. A. Clark at the London Hospital in 1866, it was noted that, "in four cases attacked with cholera whilst suckling, the secretion of milk continued undiminished, and proved very troublesome" (*London Hospital Reports*, vol. iii, 1866, Appendix, p. 449). This persistence of the mammary secretion may, therefore, be accepted as a recognised fact; and it is interesting to notice the great stress which has been laid on it by many, and especially by Italian writers, some of whom have been disposed to adopt the opinion entertained by Magendie, that it is due to the nearness of the mammary arteries to the centre of the circulation (Namias, *Lezioni Orali sul Còlera*, Venezia, 1865, p. 40). It will be sufficient, with reference to this opinion, to state that it is obviously inconsistent with an undiminished secretion of milk.

The influence of cholera on menstruation has been specially noted by MM. Briquet and Mignot (*Traité Pratique et Analitique du Choléra-Morbus, Epidémie de* 1849, pp. 374-5: 1850), who state that they had the opportunity of observing cholera in connexion with menstruation in twenty-two cases; and they found that, in the cases where cholera began during the menstrual flux, and in those where the exhalation appeared during the first two periods, notwithstanding the powerful attraction which draws the liquids to the surface of the intestine, the blood continued to obey another appeal, which, by attracting it to the uterus, resulted in menstruation. They observed that twice only, out of seven cases, were the menses suspended during the algide period of the disease; that, in the other five cases, menstruation continued when the urinary secretion and the greater part of the other secretions of the body had ceased to appear; and that, out of thirteen cases in which the menstrual flux supervened during the period of reaction, ten recovered. With respect to this large proportion of recoveries consequent on the development of menstruation during cholera, Professor Zarlenga of Naples has remarked that the occurrence of uterine hæmorrhage has often been a favourable crisis in the disease. (Cited in *Arch. Gén. de Méd.*, 3e sér., tom. 3, 1837, p. 242.) M. Decori (*Relation de l'Epidémie de Choléra de* 1865 *à l'Hôpital Saint-Antoine*, p. 74) has observed the same fact; for, in thirteen cholera patients in whom he noted the menstrual flow, twelve recovered, and only one died. Dr. E. A. Parkes (*loc. cit.*, pp. 210-11) mentions the following five cases, which came under his own observation in 1849. "In one woman, the catamenia appeared three days after the usual time during the early diarrhœal stage, after which the patient, according to her own account, had had more than one hundred stools; and continued for about twelve hours during the early cold stage, then ceased. The patient died in reaction, without their reappearance. In another woman, the catemenia, having appeared two days before the attack, continued, though scantily, through the cold stage. In a third woman, aged 50, the catamenia appeared, after an absence of nine months, at the commencement of reaction. In a fourth patient, the catamenia, having naturally ceased three days before the attack, reappeared during reaction. In another case, the catamenia appeared at the usual time, during reaction." It was specially noted in the cases which came under the care of Dr. A. Clark at the London Hospital in 1866, that menstruation "continued unchecked in cases where it had commenced before the attack of cholera. In one case, it came on during cholera, at the regular period, before reaction was established." (*Loc. cit.*, p. 450.) Menstruation has, moreover, been observed, even during the severest collapse, to continue uninterrupted till death. Among the cases in which this has been noted, is one recorded by Mr. Henry Bird (*loc. cit.*, p. 147), who remarked that "a woman who was admitted into the St. Pancras Cholera Hospital in a state of perfect collapse, and who eventually died from the disease, was menstruating at the period of her attack, and continued to do so until her death." So frequently, indeed, has menstruation been associated with cholera, that the late Dr. John Mackintosh and other writers have alleged that there is a predisposition in women at the menstrual epoch to the disease; and Dr. Keiller, in lately referring to the subject, has suggested that "this great liability of women while menstruating (to cholera) might be accounted for by the fact of their comparatively lax condition of bowels at that time."[*] (*Edinburgh Medical Journal*, vol. xii, 1867, p. 662.)

With respect to the influence of cholera on pregnancy, MM. Bouchut and Millet have tabulated one hundred and twenty cases of pregnant women attacked with cholera, in sixty-six of whom, or 55 per cent., the pregnancy has pursued its regular course. (Cited by Briquet, *Rapport sur les Epidémies de Choléra-Morbus qui ont régné de* 1817 *à* 1850 [*Extrait des Mémoires de l'Académie Impériale de Médecine*, tom. 28], 1867, p. 238.) The observations of MM. Briquet and Mignot (*op. cit.*, pp. 370-2) extend only to five females who were pregnant when attacked with the disease. One of these, three months gone, recovered; and two, respectively five and six months gone, died, one in the algide stage, and the other in reaction; whilst the other two, respectively four and five months gone, died towards the end of a period of reaction, which had already lasted many days, without having aborted. In one of these last two patients, the movements of the fœtus were felt perfectly two days after the patient had passed through a very severe algide stage of the disease. M. Talon (*De l'Influence du Choléra sur l'Etat Puerpéral*, Paris, 1850), in his inaugural thesis, founded on seventeen observations made in the service of Professor Dubois of Paris, records that, of ten women pregnant at periods varying from two to eight months, and who recovered from cholera, one aborted, and the others went the full time, and were delivered of well-developed infants; three women died who had previously been delivered prematurely, but after the eighth month, of dead infants; and four women died undelivered. Dr. Murray of Edinburgh (*Edinburgh Medical Journal*, vol. xii, 1867, p. 663) has attended a case of cholera in which the patient was eight months pregnant, and no miscarriage occurred; and Dr. S. Smith of Edinburgh (*ibid.*) has mentioned "two cases of cholera in pregnant women—one at seven, and one at eight months—where both recovered without any uterine action coming on." It is important also to notice, in connexion with this subject, that a flow of florid blood has occasionally been observed in cases of abortion during cholera, as in two cases which occurred in the practice of Dr. Boyd Mushet at the St. Marylebone Infirmary; whilst in a case of cholera with abortion at the third month of pregnancy, recorded by Mr. Henry Whitmore (*Medical Gazette*, vol. x, 1832-3, pp. 258-260), there was at first a discharge of black blood from the uterus, which, before the close of the day on which the abortion occurred, was observed to be florid in appearance, and of the usual quantity.

With reference to the influence of cholera on the life of the fœtus, it has been observed by Hohl (cited by Dr. Alex. Knox, *An Enquiry into the actual State of our Knowledge of Cholera*, 1849, p. 60), that the placentary murmur becomes more feeble, and usually less and less obvious, as the pulse sinks; but that it is rendered at once more powerful and distinct by blood-letting. In addition to cases already cited, in which the fœtus survived prolonged collapse, it may be mentioned that the late Dr. Joseph Ayre of Hull (*A Letter on the Treatment of Epidemic Cholera* 1854, p. 70) has recorded the case of a pregnant woman, aged 24 years, who was attacked with cholera, and suffered from *extreme* collapse, but recovered, and went her full time. In a case referred to in the *Lancet* (1834-5, vol. ii, p. 325), of a woman who, at the ninth month of her pregnancy, had cholera; the child, when born, screamed. Dr. George Sutton (*A Report to the Indiana State Medical Society, on Asiatic Cholera as it prevailed within the State of Indiana during the years* 1849, 1850, 1851, *and* 1852; Indianapolis, 1854, p. 46) cites the case of a lady who was attacked with cholera about the full term of utero-gestation. The labour-pains, which came on about the commencement of the disease, were suspended for twelve hours,[†] until the violence of the attack had passed, when they reappeared, and she was delivered of a child apparently full grown, and which survived its birth three or four hours. The mother in this case died, about thirty hours after delivery, of consecutive fever. M. Devilliers (*Bulletin de l'Académie Nationale de Médecine*, tom. xv, 1849, 1850, pp. 967-972) has recorded the case of a woman, aged 27 years, affected with phthisis, and at the end of the eighth month of her third pregnancy, in which, twenty-four hours after the invasion of the disease, the integrity of the fœtal circulation was still observed. M. Devilliers then ruptured the fœtal membranes; and, four hours later, he turned the child, and succeeded in delivering the woman, who died a fortnight later, from pulmonary disease. The child in this case was born dead, apparently in consequence of prolapse of the umbilical cord towards the end of the labour. M. Devilliers has moreover mentioned that he has "many times seen pregnant women attacked with severe cholera, without their existence or that of their infant having been compromised by it." Professor Betti, in his report on cholera in Tuscany, has recorded that, in seventeen pregnant women on whom the Cæsarean operation was practised after death from cholera, three infants were extracted alive; and M. Briquet (*Rapport cité*, 1867, p. 238), in commenting on this fact, remarks that "one is in consequence led to believe that at Paris some infants have been left to perish in the carcase of their mother."

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[*] It has been very generally observed, that a flux from the alimentary canal in cases altogether unconnected with cholera, often coexists with a menstrual flux. This has been ably shewn to be the case in a paper on Catamenial Diarrhœa, by Dr. Tilt (*London Journal of Medicine*, 1851, vol. iii, pp. 696-702), in which it is stated that diarrhœa "is a very frequent precursory or attendant symptom of fully established menstruation"; and that "whenever there is a great increase of uterine activity, a tendency to diarrhœa may be expected"; whilst the opposite condition of amenorrhœa is commonly associated with constipation. Although the general truth of these assertions appears to have been fully confirmed by the evidence adduced, yet it may be useful to notice that when the subject was brought before the notice of the Medical Society of London, on February 22nd, 1851, some of the fellows objected to them as "unphilosophical"; whilst others were of opinion that if the facts respecting catamenial diarrhœa were true, "they would have been noticed before". It may, moreover, be remarked that, in direct contrast to the condition of the system in cholera, when an attack of acute febrile disease occurs during menstruation, the flow of blood is usually suppressed.

[†] The late Professor Moreau observed a case in which, in like manner, an attack of cholera suspended a labour already begun.—Briquet, *Rapport*, 1867, p. 239.

Numerous and exact thermometric observations on the comparative temperature of different parts of the body during collapse, and especially with reference to the elevation of temperature in the vagina, as compared with that in the armpit or in the mouth, tend also to the same conclusion; and, although the evidence afforded by these observations may, as Mr. Simon (*Ninth Report of the Medical Officer of the Privy Council, with Appendix*, 1867, p. 511) has lately urged, be referred to the choleraic affection of the bowels being a heat-making or inflammatory process, and that, consequently, any increase of vaginal temperature is to be ascribed to the contiguity of the vagina to the rectum, yet it must be admitted that such an explanation of the increased temperature of the vagina during collapse is insufficient, if not incorrect. For, apart from the consideration of exceptional cases of so-called cholera sicca, in which the large intestines, including the rectum, have been found after death to contain, not a rice-water flux, but formed fæces, there are thermometric observations which prove that the temperature of the vagina during collapse, in typical cases of cholera, is quite as high as if not higher than that of the rectum, which could not happen if the increased temperature of the vagina were due to heat transmitted from the rectum.

The influence of cholera on various diseases, and especially on those attended with serous effusions, also tends to the same conclusion. When this subject was brought before the notice of one of the Parisian Medical Societies in 1849 (*Bulletin de la Société Médicale des Hôpitaux de Paris*, tom. 1, 1861, pp. 26-28 et 30; see also "Influence du Choléra sur les Maladies," par M. Limousin, *Bull. de l'Acad. de Méd.*, tom. xv, 1850, p. 860), numerous and important facts were elicited from some of the most distinguished members of the medical profession in France, showing that whilst the serous fluid, in cases of dropsy depending on organic diseases of the heart, of the liver, and of the kidneys; articular dropsies, as, for example, of the knee; white swelling, etc., is readily absorbed during choleraic collapse, on the other hand, it was shown that encysted dropsy of the ovary, in a case observed by M. Horteloup, suffered no diminution during an attack of cholera which was attended with abundant evacuations; and that in another case of ovarian dropsy of enormous size, and to some extent, therefore, beyond the control of any restrictive influence, observed by M. Bouvier, in which the patient died from cholera, there was merely diminution of the tumour observed after death. The only attempted explanation of these opposed facts which has, so far as I am aware, hitherto been offered, but which may at once be rejected as untenable, is that of M. Becquerel, who has suggested that the pathological difference in the effect of cholera on these diseases may be due to the presence of insoluble cholesterine in encysted dropsies, from which the liquid in true dropsies is free. Attention should also be given to the fact that whilst, for the most part, serous effusions generally disappear during collapse, the liquor amnii is undiminished, and the fœtal membranes remain unchanged. In the cases, for example, of three pregnant women who died from cholera, it was observed by MM. Briquet and Mignot (*op. cit.*, p. 414), that the membranes enveloping the fœtus and the placenta had in each case preserved their usual aspect, and that the liquor amnii had not sensibly diminished; and these observations have been fully confirmed by other distinguished observers.

Now analogy, which has been useful in lately directing attention to the primary seat of the disease, and has indicated its probable dependence on a central arrest of nutrition, seems to be equally useful in suggesting a satisfactory explanation of these otherwise remarkable phenomena; for, if the argument from analogy be sound, there can be no difficulty in comprehending why the mammary secretion, or any other function associated with reproduction, should occur when nutrition is checked. It is commonly observed that plants grown in a poor and barren soil put forth flowers instead of leaves, for, when their nutrition is reduced, their reproduction is increased; and the well-instructed farmer knows, when he dresses his fields with manure, that he can, to a great extent, determine the relative production of straw and grain. It is by acting on this principle that the gardener increases artificially the production of flowers and fruit; and the hyacinth may be selected as capable of supplying a satisfactory illustration of this relation of nutrition to production; for, if the lower portion of the bulb, from which its roots or organs of nutrition are developed, be cut out, and the mutilated bulb, like an inverted egg-cup, be placed in water, reproduction in the form of fresh bulbs to a great extent takes, as it were, the place of nutrition in the form of fresh roots. It is in accordance also with the same principle, that women, who are conductors of the hæmorrhagic disease, and who are consequently liable to lose their male offspring at an early age, are, on an average, twice as prolific as other women. But perhaps the most conclusive evidence in favour of this antagonistic relation of nutrition to reproduction is presented in the life of an insect; for, when its work of nutrition is complete, the animal passes into an intermediate stage of existence, during which it is prepared for the work of reproduction, and its previously highly developed organs of digestion are reduced till they become only the rudiments of what they once were.

In conclusion, therefore, it may be urged that not only analogy, but also experimental and comparative physiology, contribute to prove that the antagonism referred to between reproduction and nutrition prevails equally in animals and in plants, as it prevails equally in health and in disease; and that the continuance of the mammary secretion during choleraic collapse is simply an illustration of what I have elsewhere endeavoured more fully to express—namely, that there is but one law in life, which is the same for all.

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

LABOUR OBSTRUCTED BY A LARGE FIBROUS TUMOUR.

By EDWARD G. CLARKE, L.R.C.P.Edin., Mold.

ON April 30th, 1868, at 8 o'clock P.M., I was requested by a midwife to visit a poor woman aged 34, who had been in labour for a considerable time with her thirteenth child. Upon my arrival, I found that labour-pains had been present, more or less, throughout the day. On examination, I succeeded in gradually introducing my hand into the vagina, and found a solid, immoveable, and incompressible tumour on the left side, half-filling the cavity of the pelvis. I could insinuate my two forefingers between the tumour and the right wall of the vagina, and with some difficulty feel the head presenting. I waited for some time, to see what effects the labour-pains would have, but without success. I then tried to introduce the forceps, yet failed. Finding my patient making no progress, and becoming more exhausted, I determined to perforate the head; and, after two hours' hard work, succeeded in delivering her safely. She made a good recovery. On July 16th, the patient was perfectly well, and felt no inconvenience from the tumour.

CASES OF ABNORMAL PRESENTATION.

By JAMES WILLIAMSON, M.D., Mildmay Park.

I HAVE recently, in my practice, met with two cases of rare and complicated presentation.

On the evening of August 10th, I was summoned to attend Mrs. J., with her second child. The membranes had ruptured about an hour before I saw her; and the pains were strong, regular, and frequent. On examination, I found the funis protruding; and, having passed my finger into the vagina, it came into contact with a foot in the cavity while higher up the head was resting on the brim. As the mother had lost her first child, and was particularly anxious that this one might live, I much desired, if it were possible, to save it. Having returned as much as I possibly could of the cord, I retained it above the brim with two fingers of the right hand, while I gently brought the leg down. Securing this with a broad piece of tape, I now succeeded in turning by combined internal and external manipulation. Delivery was speedily effected, and a full-sized living child expelled. Both mother and child are doing well.

The second case occurred two days afterwards. The patient, Mrs. P., had been in labour twelve hours when I saw her, with her first child; but, being only in her seventh month of pregnancy, she did not think it was labour, nor, on that account, seek assistance sooner. On examination, I found the membranes ruptured, and the head in the cavity of the pelvis. Pains were strong and frequent; but, after waiting two hours without any progress being made, I passed my finger round the head, and found a foot coming down with it, behind the symphysis pubis. Being unable to return the foot, I applied the forceps, and at once delivered. The child was born alive, but died an hour afterwards.

TWINS:

FUNIS AND RIGHT KNEE PRESENTING IN FIRST CHILD: RIGHT HAND IN SECOND: SEVERE HÆMORRHAGE AND FIRM ADHESION OF PLACENTÆ.

By C. H. Collins, Esq., Chew Magna.

Mrs. C., aged 30, in labour with her sixth child, had been attended for upwards of twenty-four hours by a midwife. When called in, I found about five or six inches of the cord externally, in which all pulsation had ceased. The right knee of the child was presenting down through the os into the vagina. The woman's powers beginning to flag, I gave her some egg and brandy, and then proceeded to deliver her as quickly as possible by bringing down both feet, and delivering her in a few seconds of a very fine male fœtus, dead. Having satisfied my mind of the presence of a second child, I found, on examination, the right hand presenting. I at once passed up my hand, and turned, rupturing the membranes as I did so, and very quickly delivered her of a second male fœtus, also a very fine child, dead. Hæmorrhage of an alarming character at once setting in, I delayed no time in passing my hand *in utero*, to remove the placentæ; prescribing at the time the following draught: Tincturæ opii ♏xl; sp. ammon. arom. ℨj; essent. ergotæ ℨss; aquæ ℥iss. I found both placentæ very firmly adherent over their greater surface. I, however, succeeded, by a proces of peeling them, as it were, off the walls of the uterus, in removing them; when, the uterus contracting, and expelling my hand, together with the placentæ, all hæmorrhage ceased; and the patient, being well supported, made a good and uninterrupted recovery. Both these children's lives were sacrificed through want of timely aid.

I would here wish to state the advantage I have always found in giving full doses of tincture of opium (forty drops) after labour, rather than small doses repeated; which, if I recollect rightly, used to be recommended in Dr. Ramsbotham's work on *Midwifery*.

PROLAPSE OF THE FUNIS WITH SECOND CHILD, TREATED SUCCESSFULLY BY THE "POSTURAL METHOD".

By John Brunton, M.A., M.D., Surgeon to the Royal Maternity Charity.

On July 12th, at half-past 11 P.M., I was called to attend Mrs. K. in her fourth confinement. Labour had set in slowly about midday, and gradually increased in severity. On my arrival, the pains were active; the vertex was presenting; no liquor amnii had escaped. In a quarter of an hour, a male child was born naturally, and separated in the usual way. Having noticed that the mother's abdomen was very large, and that no liquor amnii had escaped with the child, I suspected twins; and, on examination, detected a second child, with the head presenting, the membranes entire. The os uteri being well dilated, I ruptured the membranes, when a gush of liquor amnii took place. On examination, I now found a large loop of a second funis prolapsed. As it was necessarily under severe pressure during each pain, I resolved to try reduction of the cord by the *postural method*. Placing the mother on her knees, with her face resting on a pillow, I passed my hand into the vagina, pushed up the prolapsed loop of cord, and waited till the uterus contracted. I then had the satisfaction of finding that the cord did not come down again; and in a few minutes a live female child was born. I may mention that I reduced the cord once or twice before trying the postural method, but it prolapsed with each pain.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF LEUCOCYTHÆMIA: DEATH: AND AUTOPSY.

(Under the care of Dr. Church.)

We are indebted for the report of this case to Mr. Lock, House-Physician.

W. M., aged 8 years, was admitted on Thursday, May 28th. He was poorly nourished, with a pale face, clear complexion, and anxious expression. His lips were dry and sore: gums pale and tender. He sat up in bed, as his breath was short if he lay down. The skin was hot and perspiring; the tongue covered with a thin dry white fur in the centre, the edges were clean and pale. Pulse 120, regular; soft and thrilling. Respiration hurried, irregular, 42 per minute. The glands on both sides of the neck, especially of the left, were much enlarged; the axillary glands were also much enlarged. The abdomen was much distended and hard, with dull resonance on percussion in front; it was dull on both sides. There was no fluctuation, but it was very tender, causing much pain on examination. He had general anasarca of the whole body. The forehead and upper part of the chest were covered with numerous small ecchymoses, and there was one large patch about the size of half-a-crown just above the right patella. In the chest, anteriorly, there was little movement, but equal on both sides; resonance was very slightly impaired, and rhonchus was heard on both sides. Posteriorly, resonance was increased, and a little rhonchus was heard on each side. The heart was normal. The liver and spleen could easily be felt, filling both sides of the abdomen to below the iliac spines. The blood showed under the microscope an undue number of white cells; about one white to twenty red ones. The urine deposited a copious sediment of urates, and uric acid crystals. An ophthalmoscopic examination of the eyes was made. Both pupils were dilated and sluggish. When thoroughly under atropine, the media were quite clear and normal, the whole fundus looked paler than natural, and the optic disc was indistinct and its margins were lost insensibly in the white translucent œdematous (?) retina around. The arteries were very small, and could not easily be traced. The veins were tortuous and congested, but very pale; and their continuity appeared broken at places (by effusion?): here and there along the course of the veins were large pinkish patches of (recent?) hæmorrhage. The condition was the same in both eyes.

He continued much the same till June 4th, when his cough became very troublesome, the ecchymoses on the forehead and sides of the face increased, and his eyelids, penis, and scrotum became œdematous. He said that by candle-light everything seemed red.

On June 6th, the face was more covered with diffuse ecchymoses. The eyelids were partly closed; the pupils dilated; the lips much swollen. He had been very sick, but still took his food well. The heart-sounds were natural. Some fine crepitation was heard in both lungs. The dyspnœa increased, and he died at six in the evening.

General History.—He had had measles, scarlet fever, whooping cough, and bronchitis, but had tolerable health till within the last eighteen months. Three weeks before admission he caught cold, when he noticed that his stomach began to swell and became hard. He complained also of sore throat, and a frequent desire to pass urine. It is uncertain when the glandular enlargement commenced. The family history was good.

Post Mortem Examination forty-five hours after death.—The body was generally anasarcous. The pericardium contained a large amount of dark yellow and semipurulent fluid; on its visceral layer were very numerous and small ecchymoses, most numerous in the auriculo-ventricular furrow. The heart was large, and weighed 6¼ ounces. The endocardium of the left auricle had numerous ecchymoses under it; and a few were found under that of the left ventricle. The valves were natural. The left pleura contained a little thin serous fluid. The cavity of the right pleura was obliterated. The lower lobe of the left lung was partly collapsed. The lower lobe of the right lung was œdematous, containing scarcely any air. The upper lobes contained more air, but were otherwise in a very similar condition. The trachea and bronchi contained a quantity of viscid mucus, and the mucous membrane was very pale. The bronchial glands were much enlarged and very hard; and several of the largest were filled with old caseous material. The thymus gland was greatly enlarged, being firm and hard, and of a dark purple colour. The peritoneal cavity contained about six ounces of a deepish yellow serum. There were no ecchymoses beneath the peritoneum. The spleen was greatly enlarged, and weighed 23 ounces. Its capsule was smooth, and on section it appeared quite natural. The liver was much enlarged, and weighed 75½ ounces. Its surface was smooth, on section firm, with a glassy almost amyloid look, the lobules being apparently surrounded by a pale pinkish gray material. The kidneys weighed 4½ ounces each. The capsules of the kidneys separated with ease, leaving the surface of a pale waxy colour and studded with numerous small ecchymoses. On section, the cortical substance was pale and waxy-looking. The tonsils were greatly enlarged, and hæmorrhage had taken place into their substance. There was no enlargement of the submucous glands of the œsophagus. The stomach was natural. The solitary glands in the duodenum were enlarged, prominent, and almost shotty. The same condition existed throughout the whole course of the intestine. The first few patches of Peyer were very prominent, but the lower ones were enormously hypertrophied, great ridges and folds of membrane marking their situation: this condition was most marked immediately above the valve. The parotid and submaxillary glands appeared unduly large, and they were lifted up and surrounded by a mass of enlarged lymphatics. The cervical glands on the left side were larger than those on the right. The mediastinal glands were not much enlarged: the whole of the anterior mediastinum being occupied by the thymus. The mesenteric glands were immensely enlarged, some to the size of a pigeon's egg; they were rather firm, and of a dark purplish colour when cut across. The axillary glands were also much enlarged. The lumbar, inguinal, and femoral glands were enlarged, but not nearly so much as the cervical and axillary ones. The scalp and bones of the skull appeared natural. The pacchionian glands were not larger than usual. The pituitary and pineal bodies appeared natural. The brain was soft, œdematous, and rather paler than usual. The ventricles contained the usual quantity of clear serum.

MICROSCOPICAL EXAMINATION.—The blood after death was found to contain an enormous proportion of white blood-cells, much more so than appeared during life. In a section of the liver, the lobules appeared to the naked eye surrounded by a pinkish gray substance. This was found to be an infiltrating material, in some parts dimly fibrillated, in others abounding in small nuclear-looking cells; which were not changed by acetic acid. The cellular bodies closely resembled those obtainable from the lymphatics, but were smaller. The hepatic cells seemed unaffected, and the infiltrating substance appeared to follow the course of the portal canals. Iodine gave no reaction when applied to the section. Sections of the kidney showed the connective tissue greatly increased; and among it were large numbers of cells or nuclei, resembling those of the liver and lymphatics, but smaller than the latter. The sections of the kidneys precisely resemble those figured in Virchow's *Krankhaften Geschwülste*, vol. ii, p. 573, fig. 184. But when the surface of the kidney was looked at no canals appeared, as figured by him. The lymphatic glands, when cut across, were of a dark purple colour; scrapings of them showed quantities of small cells which were but little affected by acetic acid; and, after they had been some time in connection with it, few blood-corpuscles could be seen mixed with them.

STRANGULATED FEMORAL HERNIA IN A FEMALE AGED EIGHTY-NINE YEARS: OPERATION: DIVISION OF THE STRICTURE WITHOUT OPENING THE SAC: RECOVERY.

(Under the care of Mr. HOLMES COOTE.)

MARGARET L., aged 89, was admitted into St. Bartholomew's Hospital, August 3, suffering from strangulated femoral hernia of the right side. She said that she had had a rupture since she was twenty-five years old, but had been always able to return it easily, until the previous day (August 2) at 4 P.M. She first went to a surgeon, who employed the taxis, but without avail, for above an hour and a-half, after which she went home but passed an uneasy night. She came to the hospital about 11 A.M., August 3; when, the symptoms of strangulation being evident, the operation was performed at 1 P.M. A fair attempt at reduction having first been made, the patient was rendered insensible by chloroform. The shape and situation of the tumour were somewhat different from those of an ordinary femoral hernia; it was more pyriform, and nearer than usual to the external inguinal ring. Mr. Coote made an incision along the inner margin of the tumour, and dissected down to Gimbernat's ligament. First, some of the fibres of the saphenous opening were divided; then some of those of Gimbernat's ligament, when the protruded mass was readily replaced, the hernial sac remaining entire; a proper bandage was applied, and the patient sent back to bed. She was ordered six ounces of brandy daily, half-a-pint of essence of beef, and such nutritious food as she could enjoy. The bowels were relieved the following day. No unfavourable symptoms supervened, and on August 17th no symptoms referable to the hernia remained.

KING'S COLLEGE HOSPITAL.

THE USE OF SULPHITE OF SODA IN CHRONIC CYSTITIS.

IT has been known for some time that the salts of sulphurous acid, when taken internally, possess the power of preserving healthy urine from putridity. Reasoning from this, Mr. L. Willcox, late house-surgeon, supposed they would have the same effect in those cases of chronic cystitis where, from the large secretion of mucus, the urine becomes putrid before it can be evacuated, and thus the walls of the bladder are kept in constant contact with a highly irritating fluid, and have no chance of regaining their normal condition. He, therefore, lately recommended and employed the sulphite of soda with very marked success in several cases of chronic cystitis in the hospital. The urine, from being intensely alkaline and horribly fœtid, loaded with pus and with difficulty retained for a quarter of an hour, shortly became clear, acid, without odour, and capable of being retained for two or three hours. The mineral acids had been tried in the same cases previous to using the sulphite, and with little benefit.

DUBLIN HOSPITAL REPORTS.

ST. VINCENT'S HOSPITAL, DUBLIN.

(Under the care of Dr. MAPOTHER.)

POST-PHARYNGEAL ABSCESS.—John W., aged 16, was treated for typhus fourteen months since. Abscesses in the cervical glands followed. Three weeks since he felt pain in swallowing, which gradually increased. When admitted to St. Vincent's Hospital, an abscess was found to have formed in the loose areolar tissue between the pharynx and the prevertebral muscles. The soft palate was pushed greatly forward, deglutition was impossible, and speech very difficult. An opening was made with a guarded bistoury, and half a pint of pus escaped. Recovery quickly followed. Dr. O'Ferrall is in the habit of opening these abscesses standing behind the patient and cutting the anterior wall forwards towards the mouth, with a bistoury, in preference to using a trocar.

MERCURIAL ERETHISM.—Margaret Murphy, aged 52, was ordered on June 8th five grains of blue pill twice daily for hepatic derangement. Profuse salivation took place on the third day, when twenty-five grains had been taken, and on the 11th she sought admission into St. Vincent's Hospital. She fainted three times in being carried up stairs, and for several days could not sit up in bed without becoming faint. The pulse was 120, fluttering, and most compressible. The skin was of a yellowish tinge, and there was scarcely any difference of hue between the cutaneous and mucous surfaces of the lips. All through there was constipation, so that, if the mercury had acted as a spanæmic, the *débris* of the blood did not pass away by the alimentary canal. A drachm of sulphur rubbed up with castor-oil and mucilage was first given; and, as the salivation thereupon ceased, citrate of iron and quinine, beef extract and sherry were administered, and free circulation of air was kept round the bed. On the 8th July her strength and colour were nearly restored, but palpitation was much complained of.

CONGENITAL NARROWNESS OF THE URETHRA.—J. D., aged 28, had been treated for phimosis by Dr. Donovan of Skibbereen; but, on removing the loose portion of the prepuce, it was found that the posterior half of that fold was adherent to the glans. The meatus, situate in the usual place, was so contracted as to admit with difficulty a No. 1 catheter. During micturition a capillary but cylindrical stream issued, and about eighteen minutes were required to evacuate ten ounces of urine. Erections occasionally took place, the penis curving much upwards, and semen very slowly escaping. After repeated examinations by means of a fine probe, it was judged that the urethra was throughout of the same calibre as at the orifice, and that this condition was irremediable.

TREATMENT OF SUNSTROKE.—The new treatment of this terrible complaint by *heat* is being received with favour. Recently, Dr. F. G. Herron, one of the City Physicians of Cincinnati, Ohio, tried it in two cases, with success. Instead of cold water, he applied warm water to the head, in cloths, the water as hot as the skin could bear without injury. The effect was very striking, restoring the patient to consciousness very soon. Then, as a stimulant, he administered *liquor ammoniæ acetatis*.—*Medical and Surgical Reporter.*

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 19TH, 1868.

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PRESCRIBERS AND DISPENSERS.

THE *Pharmaceutical Journal* of the present month contains some editorial comments on the "separation of pharmacy from the practice of medicine." The writer of the article argues that, with the increase and extension of knowledge, medical, surgical, and pharmaceutical, a division of labour has become necessary. He holds that the practice of medicine and pharmacy cannot be successfully carried on together.

"The physician who practises medicine as well as pharmacy, will neglect one, or attain to eminence in neither. What a relief to the exhausted powers of mind and body, after a day spent in visiting the sick, are the occupations of the dispensary, among dusty pots and bottles! More congenial, perhaps, it might be, and certainly more conducive to the interests of the patient, if the time thus spent were devoted to a quiet retrospect of the experiences of the day, and to communion, through their works, with eminent writers, in cases of doubt or difficulty; but dispensary duties leave little time for this. And, as for the remedies, their choice is limited to what may happen to be the stock-in-trade."

The article concludes with the following paragraph.

"As surgery, in its highest and most perfected departments, has been separated from the general practice of medicine, and has even itself undergone various subdivisions, so has pharmacy been made a distinct occupation or calling. Wherever this separation has been most systematically carried out, means have been devised for enforcing it; but, in this country, it has been left to the discretion of those who are engaged in the practice of medicine, and to the conventional laws by which professional conduct is controlled. There has, however, been a progressive tendency in favour of this separation for several years past. Many general practitioners have ceased to prepare their own medicines, and have adopted the practice of receiving a fee and writing a prescription. If this system were more generally adopted, we believe it would tend greatly to the interest of all parties concerned; but, of course, it would be necessary, at the same time, that dispensers should abstain from prescribing. Much has been done, through the efforts of the Pharmaceutical Society, to discourage counter practice among its members. In addition to the force of example and precept, as set forth by the leading and most influential members of the Society, the educational means which have been provided through their instrumentality, have also tended in that direction. We should greatly rejoice to see the same evidence of a determination on the part of chemists and druggists to abstain from prescribing, as we believe there is of a disposition among general practitioners to abstain from dispensing. The two principal difficulties to be overcome, in order to accomplish the desired object, appear to be, first, that medical men should do as they do abroad, adapt their practice and their fees to the means of their patients; and, secondly, that those engaged in the practice of pharmacy, with a mere pharmaceutical qualification, should wholly abstain from undertaking the treatment of diseases."

This paragraph gives a very fair view of the relation in which prescribers and dispensers should stand to each other; and it is especially satisfactory to notice that the Pharmaceutical Society discountenances "counter-practice" on the part of druggists. There is every reason to trust in the good faith of the Society in this matter; and to believe that, as far as lies in its power, it impresses on pharmacists that their duty is to dispense and not to prescribe. We trust that, when the new Pharmacy Act comes into operation, it will use whatever influence it can, in the same direction, among the registered chemists and druggists.

We believe that counter-practice among druggists is principally carried on by those to whom—notwithstanding their competency for all the ordinary purposes of their calling—the old saying about the dangerous properties of "a little knowledge" is applicable. It is not the highly educated pharmacist, well versed in the physiological as well as in the physical properties of drugs, and scientifically expert in the most effective means of preparing them for medicinal use, that the profession has to complain of for undertaking duties which do not belong to him, and for which he has not been trained. It is the druggists of the ordinary class who most require to be taught that their knowledge of pharmacy, though in itself sufficient, does not convey with it a knowledge of the practice of medicine.

It must not be overlooked, however, in justice to these transgressors, that they are exposed to much temptation through the popular ideas as to the treatment of disease. The public, when suffering from what is, or what it believes to be, some slight ailment, is very apt to "go to a chemist"; and it may be supposed to demand some moral courage on the part of the chemist to tell the applicant that, though he sells medicines, he does not understand disease. The chemist, gratified with the compliment paid to his supposed knowledge, gives the patient a pill or draught; and from practice of this kind, and under the same influences, the transition is easy to the regular visitation of patients suffering under even serious maladies. What mischievous results often follow such practice, the experience of many a medical man can bear witness.

We do not by any means wish to defend the practice of medicine by druggists; but merely to point out that, while in attempting to treat disease they exhibit presumption and want of moral courage, the fault but partly rests with them. It is the popular notion that the main point in the treatment of disease is the administration of drugs, that lies in great measure at the root of the evil. The remedy obviously consists in a better education of both druggists and public as to the proper relations of medicine and pharmacy. The druggist should have a knowledge of the medicines which he uses, so complete, as to enable him to see that their application to the various pathological conditions of the body requires a training beyond that which he possesses. The public requires to be taught that the management of disease does not essentially consist in dosing patients with pills and mixtures, but in judiciously aiding Nature by hygienic as well as medicinal means, and in guiding and directing the patient and those about him in the course in which recovery is likely to be soonest reached. They should be made to understand, that it is as absurd to apply to a vendor of drugs for the treatment of disease, as to call in a surgical instrument-maker to amputate a limb or remove a tumour.

One other important point, referred to in the extract which we have quoted from the *Pharmaceutical Journal*, requires notice. The writer of the article urges that, while druggists should give up prescribing, medical practitioners should give up dispensing their medicines; and the argument on which the recommendation is based is, that both medicine and pharmacy have become too extensive for any one man. There is much soundness in this; for certainly both medicine and pharmacy are in a very different stage of progress from what they were a generation or two ago. Taking, then, the question in its broadest form, we believe that it would be well for medicine, if the separation could be carried out. But some accessory matters must be considered. Our contemporary recommends that medical men "should adapt their practice and their fees to the means of their patients"; by which, we suppose, he means that they should charge, according to their patients' means, for medical advice and not for drugs. This is what ought to be the basis of medical charges—the skill, and not the material means used; and on this principle many practitioners have acted. But there is in the way—probably less than formerly, but still to a great extent—the overestimate of drugs on the part of the public, to which we have already alluded, and the attendant underrating of the skill of any one who does not give his patients plenty of medicine; and this, until it is remedied, will bind many medical men to dispense their own medicines as a means of obtaining something like fair remuneration.

Again, in several remote and thinly populated districts medical men exist as a necessary part of the community; while there is no druggist fit to be entrusted with the dispensing of prescriptions, and, if there were one, he could not gain his living. What can the medical man do in such case, but dispense his own medicines?

There is yet danger which may possibly arise from the entrusting of the prescriptions of medical men to druggists—the misuse of the prescriptions; first, by their being repeated by the druggist on the mere application of the patient, without ascertaining whether such repetition has received the sanction of the medical adviser; and secondly, by the use of the prescription, on the part of the druggist, in cases which he believes to be similar to that for which it was originally given. This is a topic regarding which we can here only say, that it is closely connected with the counter-practice on which we have already commented, and is to be met by the same remedies.

The views which the *Pharmaceutical Journal* has this month put forth, on the mutual relations of medical men and pharmacists, are fair and temperate; and we have read the article in that periodical with much satisfaction, especially on account of the declaration—which, there is every reason to believe, is made in good faith—on the part of the Pharmaceutical Society, that it does its best to restrict pharmacists within their proper functions. But, while agreeing in general with the opinions expressed, we have thought it right to call attention to some accessory points, which cannot well be overlooked in considering the question of the separation of pharmacy from the practice of medicine.

WE learn with much satisfaction, from the *London Gazette*, that Professor Longmore, of the Army Medical School at Netley, has received the appointment of Honorary Surgeon to Her Majesty.

THE President and members of the Ulster Medical Society entertained the medical officers of the Channel Fleet, with those of the Belfast garrison, at a dinner on September 7th. Dr. Cuming, president of the Society, was in the chair.

THE captain of a passenger ship trading between London and Melbourne was last week fined by the Lord Mayor £25, for the breach of a provision of the Passenger Act, in not providing a supply of wholesome flour for the use of the passengers on a voyage home from Melbourne.

THE fourth General Congress of the Italian Medical Association will be held in Venice from the 11th to the 18th October.

M. CHEREAU quotes, in *L'Union Médicale*, an *ordonnance* dated March 24th, 1493, ordering all persons affected with syphilis to depart at once from the city, on pain of being thrown into the river.

A BILL to enable municipalities to contribute towards the expenses attending the introduction of the Indian Contagious Diseases Act, by providing for Lock Hospitals, has been introduced in the Vice-Regal Council of India.

ABUSE OF MEDICAL CHARITY.

THE *Medical Record* states, on the authority of Dr. W. H. Campbell of Boston, America, that, in two cases, men worth 50,000 dollars in real estate received medical aid as out-patients; and that one of them was for a time an inmate of the Boston City Hospital.

ADULTERATION OF BISMUTH.

DR. REDWOOD has called attention in the *Pharmaceutical Journal* to the adulteration of subnitrate of bismuth with phosphate of lime. In a specimen which he examined, he found 11 per cent. of the phosphate; and another sample, from a different source, yielded as much as 40 per cent. of the same adulterant. He believes that both samples were of foreign manufacture.

SCALE OF MEDICINES: THE MERCHANT SHIPPING ACT.

THE Board of Trade, in the exercise of powers given to them under the Duke of Richmond's Act, passed last year, caused the scale of medicines then in use on board merchant-ships to be amended and revised. Many useful and necessary alterations were made, special regard being had to the economy as well as the efficiency of the scale. Among other changes, carbolic acid was substituted for the solution of chloride of zinc, "as an antiseptic and deodorising agent for common use", and we cannot but think that the medical advisers of the Board exercised a wise discretion in this particular. Some weeks ago, however, a revised scale was published by official authority, in which the chloride solution again appears in the list, thereby increasing the gross cost to the shipowner, and confusing the unprofessional minds of ship-captains by giving them a choice of two disinfectants. We are curious to know who is responsible for this change of programme, and whether this costly addition has been made with the sanction of the medical advisers of the Board. Shipowners, and others interested, have a right to know the reason why so superfluous an alteration has occurred, and will, unless some specially good reason be forthcoming, be sure to complain on financial grounds alone. We have always advocated with great energy an improved system of sanitary legislation afloat; but it is bad policy, and clumsy administration, to compel ships to carry superfluous articles in the medicine-chest, and so to impair the usefulness of its contents, the chief merit of which should be extreme simplicity.

PRIZES.

A NUMBER of prizes are now open to competition. Among others, are the following. The Royal Lombard Institute offers a prize of 1,500 *lire* (£62:10:0), and a gold medal of the value of 500 *lire* (£20), for an essay on the curative and prophylactic efficacy of the alkaline and earthy hyposulphites in malarious intermittent fever, compared with other more known remedies. Essays are to be sent in by the end of February 1869. A prize of 864 *lire* (£36), to be awarded after February 1872, is offered by the same institution for an essay, founded on a chemical and experimental basis, on the best antifermentatives, antiseptics, disinfectants, and deodorants, simple or compound.—The *Philadelphia Medical and Surgical Reporter* announces that the following questions are proposed for 1869 by the Committee on the Roylston Medical prizes. 1. Food in Disease, acute and chronic; its variety, advantages, dangers, and relation to appetite. 2. The Surgical Treatment of Hæmorrhoids, and the Surgical Treatment of Fistula in Ano, with its results. Each prize is of the value of 150 dollars. Dissertations must be transmitted, post-paid, to Dr. John Jeffries, on or before the first Wednesday in April 1869. The following questions are proposed from the same source for 1870. 1. The Modern Pathology of Tumours. 2. Aphasia, or the Relation of the Brain to Speech. Dissertations must be transmitted as above, on or before the first Wednesday in April 1870. Each prize in 1870 will consist of 200 dollars. Each dissertation must be distinguished by a device or sentence, which must be also enclosed in a sealed packet, with the author's name and residence.—The Trustees of the Fiske Fund, at the annual meeting of the Rhode Island Medical Society, held in Providence, June 10th, 1868, gave notice that no awards had been made on the questions proposed by them the past year. They offer the following subjects for 1868. 1. Bromides, their physiological effects and therapeutical uses. 2. Cerebro-spinal Meningitis, pathology and treatment. 3. "Graves's Disease" (so-called), pathology and treatment. 4. Carbolic Acid, its therapeutical effects and hygienic uses. For the best dissertation on each of these subjects, a premium of 100 dollars is offered. Every competitor must forward to the Secretary of the Fiske Fund Trustees, on or before May 1st, 1869, free of all expense, a copy of his dissertation, with a motto written thereupon, and also accompanying a sealed packet, having the same motto inscribed on the outside, and his name and place of residence within. Previously to receiving the premium, the author of the successful dissertation must transfer to the Trustees of the Fiske Fund all his right, title, and interest in and to the essay.

DEATHS FROM SUNSTROKE.

AN examination of the statistics of death from sunstroke in the city of New York, gives the following result. In August 1853, 224 persons died from sunstroke; in 1863, there were 135 deaths from the same cause; in 1866, there were 230 deaths from sunstroke; and during the present year, up to Saturday, July 18th, there were 833 deaths from heat alone, as reported by the papers.

COOMBE LYING-IN HOSPITAL, DUBLIN.

THE Guardians and Directors of this institution have had under their consideration, since the period of their incorporation by Royal Charter towards the close of last year, recommendations made by the Masters of the hospital for the more efficient working of its several branches. With this view, they have recently arranged that, while the responsibibility and supervision of each and every one of the branches shall continue, as hitherto, solely with the Masters, Drs. Ringland and Sawyer, each of the departments shall be respectively in charge of a distinct officer; and to this end they have created a new office, that of Obstetric Surgeon, who is to have under his care the ward for the treatment of diseases of females, and the Special Dispensary held at 2 P.M. on Tuesdays and Fridays for extern patients labouring under the like diseases; whilst the General Dispensary for the Diseases of Females and Children is to continue, as hitherto, in charge of the dispensary medical officer; and the management of the midwifery patients, both intern and extern, has been, as before, invested in the hands of the assistant to the Masters. The Guardians and Directors have likewise added to their staff an analytical chemist, whose duties will be, not merely to make such analyses as the Masters and the other medical officers may require, but also from time to time to examine the food, etc., supplied for the use of the patients, and report thereon as he may see right. Dr. G. H. Kidd, who has been for many years the able and efficient Assistant to the Masters, has been appointed the Obstetric Surgeon; Dr. W. Roe has succeeded him as Assistant to the Masters, an office which henceforward, under the provisions of the Royal Charter of Incorporation, can be held for a term of only three years by the same person; Sir William Carroll, M.D., continues to be the Attendant on the daily General Dispensary, Dr. Quinlan efficiently acting as his *locum tenens* during his year of office as Lord Mayor of the city; and Dr. C. E. Cameron, the City Analyst, has been elected to the office of Analytical Chemist of the institution

EAST LONDON CHILDREN'S HOSPITAL.

THE first report of this hospital, the establishment of which we noticed a few months ago, has lately been issued. The hospital was opened with ten beds, which in within three months were increased to twenty-three; and the committee are now desirous of adding another ward as soon as the state of the finances permits it—the present accommodation being far from equal to the claims for admission. During the first six months, the number of out-patients (new cases) has been 2300; and of in-patients, 90. The balance-sheet shows receipts, from January 28 to July 15, amounting to £723:15:6; and an expenditure of £362:5:0; to which a sum for drug-expenses, not yet known, will have to be added. The expenditure is exclusive of a large sum most generously laid out on the establishment of the institution by the Resident Medical Superintendent, Mr. N. Heckford; who, the report states, purchased the freehold for the sum of £2000, defrayed the whole of the legal expenses, and provided the preliminary outlay in rendering the premises suitable for their purpose and in furnishing the first ten beds. We again call attention to this hospital, as one eminently deserving public aid, situated as it is in a quarter of London where poverty prevails in a dense population. Thanks to the philanthropy of its founder, the hospital is, unlike many similar institutions, free from debt; and it remains for the public to determine whether the undertaking, so well begun and manifestly so much needed, shall go on and prosper as it deserves. The Rector of Wapping, the Rev. Sherrard P. Burnaby, has undertaken the duties of Honorary Secretary, and will receive subscriptions.

HUMAN SACRIFICES TO FASHION.

AN American physician, Dr. Ayres of Fort Wayne, Indiana, addresses a contemporary as follows:

> "A ruinous and fatal idea of beauty prevails, to an alarming extent, among the young ladies of the United States. Any cosmetic producing a pallor of the face is profusely applied; any substance which will rob the blood of its vitality and red globules, and send debility throughout the organism, is greedily swallowed, and sent on its destructive mission. A small waist is considered the perfection of form, when, in truth, it is the opposite, and only a distortion of that development which nature would give. Where such deformity cannot be induced by a listless, sedentary life, it is brought about by the sacrifice of happiness and health. This fanaticism, or monomania, is yearly carrying many of its votaries to premature graves, or rendering them sad images of degenerated women."

He relates the case of a young lady, accomplished in mind, and vigorous and healthy, who, to reduce her body to paleness and delicacy, took sulphate of magnesia for upwards of a year. The result was an utter deterioration of health of mind as well as of body, and ultimately death. Dr. Ayres intimates that this case is only one of many. We are accustomed to speak of the Chinese custom of deforming the feet of their ladies, and of the flattening of children's heads by some savage tribes, as barbarous practices. But these are small barbarities, in comparison with those disastrous practices which, if Dr. Ayres speaks correctly, are allowed not only to deform, but to destroy human life, in a country which boasts of high civilisation.

CRUEL FANATICISM.

UNDER the title *Les découpeurs de femmes*," a French paper *(L'Opinion)* gives as authentic the following history. A young woman in the *commune* of Zoersel, canton of Brecht, was in the agony of death. The curé, who had come to give her religious aid, after performing this duty, gave a penknife to the father, remarking: "Your daughter is pregnant. As soon as she is dead, perform the Cæsarean operation on her." The father, struck with horror at what was required of him by the priest, sent for a midwife, and, giving her the penknife, communicated to her the curé's order. The midwife threw aside the penknife, and, when she thought that the girl was dead, operated with a razor. *The girl was not pregnant.* A medical committee, appointed to inquire into the affair, asked the midwife by what signs she recognised that death had taken place. Her reply was, "*I do not know.*" Such, remarks the journal from which we quote, is the result of the orders given by the Archbishop of Mechlin to the priests of his diocese. For aught that is known, women are cut open before they are dead, for the purpose of baptising a fœtus which does not even exist.

LONDON MILK.

Dr. Lankester has examined the milk supplied by twenty-one different dairies in the western districts of London, from samples casually purchased, and has given a table of the results, of which the following is an analysis. The specific gravity was taken immediately on the arrival of the milk. Five hundred grains were then weighed and allowed to evaporate in a hot-water bath, and the residue weighed when dry. In all cases, the milk was allowed to stand for twenty-four hours, when the quantity of cream was measured by a lactometer. Milk having from 7 to 9 per cent. of cream is classified as "good". Three specimens are thus marked. There are three instances which Dr. Lankester has marked "very good"; they contain a larger quantity of cream (11 to 15 per cent.) than is usually found, and are good samples of pure milk. Eleven specimens presented from 5 to 7 per cent. of cream. Four specimens showed less than 5 per cent. of cream. These specimens, presenting as they do little cream, with a high specific gravity and a large quantity of residue, Dr. Lankester regards as open to the suspicion of having had water holding a certain quantity of saline matter in solution added to them. At the same time, it ought to be mentioned that milk drawn from the cow sometimes presents the same qualities. The specimens were all chemically tested and examined by the microscope, and contained no indications of possessing anything not found in genuine milk.

HYDROPHOBIA.

The *Medical and Surgical Reporter* speaks of the popular notion of the connection of hydrophobia with the "dog-days" as a "vulgar error of physicians".

"*Hydrophobia: a Popular Medical Error.*—No error is more absurd or unfounded than that which supposes hydrophobia to be peculiar to or more frequent in the hot months. The muzzling of dogs at such times is a relic of mediæval superstition. It originates from some popular notion concerning the 'dog-days', which, in turn, derive their name from the periodical change in position of the 'dog-star', Sirius. In point of fact, hydrophobia is more frequent in January than in August, and to put muzzles on dogs in the summer season, when they are so thirsty, is a piece of useless and wanton barbarity. We are glad to learn that the town of West Chester, in Pennsylvania, proposes to take the initiative in this matter, and do away with this antiquated habit. Let other and all towns follow this example."

Our contemporary will have seen that we are at one with him in this matter. But is he not rather hasty in speaking of the error referred to as a *medical* one? With us, whatever it may have been in past ages, it is the public, and especially the Commissioner of the Metropolitan Police, who require to be enlightened on this subject.

AMERICAN DOCTOR'S ORTHOGRAPHY.

An American medical contemporary gives the following as an exact copy of a surgeon's certificate, furnished in aid of a soldier's claim for bounty, and now on file in the United States War Department. "May the 10 I her By certify on honor that I —— —— a praction phission Did waight on and treat —— —— Co.— R. Inftry who died at home in J—— county who was on sick furlow with chronic disntary. —— —— A pract phison". Another "praction phission" certified that a certain soldier died of "informatian on the brain"; another, that a death was caused by "disease contracted for in the service"; and another, that the disease of which a soldier died was "new money". If the writers of these choice specimens of literature be really *legally* qualified practitioners, the examples here given afford an additional reason to the Medical Council for withholding their consent to the introduction, into a Medical Act Amendment Bill, of any clause providing for the recognition of foreign diplomas without a thorough supervision. It cannot be supposed that these examples were the production of alumni of any of those well-known diploma-granting institutions in America which are an honour to that country; but they tend to confirm the current report, that there are other institutions having legal powers of qualification in the United States, which are less known to medical fame, and which, to say the least, are not particular in their inquiries into the preliminary education of their pupils. One may reasonably doubt whether the knowledge of the anatomy and physiology of the human body possessed by such men, is not on a par with their acquaintance with the anatomy and physiology of the English language. We repeat that such examples indicate a necessity for that caution on which Sir Dominic Corrigan has especially insisted, and of the need of which, we believe, the Medical Council is convinced.

BABY-FARMING IN MARYLEBONE.

In a second-floor back, in a long narrow crowded street in Marylebone, is a baby-farm. This little plantation is enclosed by four sombre walls, plentifully adorned with highly coloured prints. But little air enters this room; the yellow light feebly struggles to enter through the little window (which is a fixture, and will not open at the top); the fire in the grate sympathises, and looks doleful. This room is a house in miniature. Here all the necessary duties of civilised life are carried on. This room is the wash-house, kitchen, sitting-room, lavatory, bed-room, baby-farm, and hospital. A *coup d'œil* of this room is never to be forgotten,—the cooking of fish—the smell of soap-suds and tobacco—the crowding of chairs, tables, bedsteads, drawers, wash-tubs, clothes-lines, etc., with three clothes-baskets containing three little bastard olive-branches; while a pale, delicate, yet cleanly woman, and a rough sturdy excavator smoking a short clay pipe, complete the picture.

The mistress of this plantation has been in the baby-farming business for seventeen years; she has had children of her own, but all have died in their infancy. She took to baby-farming because she was not strong enough to go out charing; and in the winter months her husband is much out of work; so, as she says, "It is a bit o' summat to fall back on." She has had eighteen nurse children, twelve of whom have died quite young; she has reared three till old enough to go out as errand boys. She has three at the present time; all are ill; two are suffering from scarlatina, and the third from syphilis. As she says, "Her hands are quite full wi' 'em, it is quite a hospital."

The biography of these three infants is as follows. X. is a male child, aged 8 months; his mother is a cook, aged 23; his father a banker. He was born in the workhouse, and suckled by the mother three months; he has been with the woman four months. This child is fed on milk and sop. The mother pays 6*s*. per week for it; she seldom comes to see it, but pays regularly once a quarter.

Y., a female child, aged 4 months, was born in the room. The mother is a servant, aged 26; the father a mechanic, who ran away to America, because he was afraid of having the child affiliated upon him. The mother pays 5*s*. per week; she also pays quarterly; it takes all her wages, and she has very little, except what is given her as presents, to buy either clothes for herself or her child; when she is out of a situation she stays with the woman till she gets one.

Z. is a female child, aged 3 weeks. The mother is a servant, aged 30; the father an officer in the army. The mother was confined in a lodging; she had no one to attend upon her, and both mother and child nearly lost their lives. The mother is to pay 4*s*. 6*d*. a week, but is not able to get a situation yet.

The children in the care of this woman are as well attended as the circumstances of the case would warrant one in anticipating. As she says, "I try to do my dooty by 'em, and get a little for mesel'." In spite of this, it is evident that the pressure from all circumstances surrounding baby-farming is so great, that, where there is not any design to deprive the children of life, they are yet squeezed out of existence.

THE NOMENCLATURE OF DISEASES.

I.

THE *Nomenclature of Diseases*, recently issued by the Royal College of Physicians, in a volume of over 300 pages, is a work of almost national importance, and one with which every practitioner of medicine in Her Majesty's dominions will doubtless feel it his duty to make himself ere long familiar. It has been prepared with the object of promoting uniformity and simplicity in the designation of diseases, and thus of facilitating their accurate registration, and of being applicable as well to the ordinary registration of deaths, as to the statistics of the diseases under treatment in the army and navy, in our hospitals and workhouses, and generally in whatever institution, or wherever else, diseases occur in sufficiently large groups to merit tabulation. Indeed, "the idea which led to the formation of a general Nomenclature of Diseases, originated in a correspondence between Dr. Dumbreck, of the Medical Department of the Army, and Dr. Sibson, respecting the need of such a nomenclature for use in the Army Medical Service." And not only have representatives of the Army and Navy Medical Services assisted in the preparation of the Nomenclature, but representatives of the Registrars-General of England, Scotland, and Ireland (Dr. Farr, Dr. Stark, and Dr. Burke), have also given their assistance in the work; and all the public departments with which these gentlemen are connected have consented to adopt it. It is already, therefore, designated to displace the excellent, though less complete, nosologies of the Registrars-General; and must hence necessarily come, before long, into general use.

In the excellent, though brief, preface to the work, from the pen of Sir Thomas Watson (a portion of which has already appeared in our pages), an account is given of "the circumstances of its origin and progress." It appears that, as far back as the 9th of July, 1857, at the Comitia Majora of the Royal College of Physicians, "it was resolved, on the motion of Dr. Nairne, in consequence of a letter addressed to the College by the Hospitals Committee of the Epidemiological Society, 'that a committee be appointed to prepare a Nomenclature of Diseases, and that such committee have full power to co-operate with other bodies.'" A committee was accordingly appointed; but its meetings "were suspended in 1858, in consequence of the passing of the Medical Act of that year, and of the alterations thereby rendered necessary in the constitution and regulations of the College."

They were resumed in 1863; and then, or subsequently, numerous other members were added to the Committee. In fact, from first to last, and in one way or another, nearly seventy physicians and surgeons of repute have been engaged upon the Nomenclature. The names of these gentlemen, which are all given in Sir Thomas Watson's preface, it would be inconvenient, and is needless, to enumerate here. It is sufficient to say: first, that there is a melancholy interest in the fact that the list includes the lamented names of Drs. Jeaffreson, Babington, Addison, Baly, Barlow, and Kirkes, together with those of Mr. Stanley and Sir John Liddell; second, that the greater part of the work was necessarily performed by a comparatively small Subcommittee; and third, that on no one individual has so much labour and responsibility devolved as upon Dr. Sibson, the indefatigable Secretary, who not only edited the entire volume, but who, by his tact and perseverance, exercised continuously over a series of years, has been mainly instrumental in bringing the work to a successful issue.

The diseases, included in the Nomenclature, are divided into two classes, General and Local; to which are added three other classes: of which the first comprises, "Conditions not necessarily associated with General or Local Diseases"; the second, "Poisons"; and the third, "Injuries".

"General Diseases" are subdivided into two sections, A and B. Section A," says Sir Thomas Watson, "comprehends those disorders which appear to involve a morbid condition of the blood, and which present for the most part, but not all of them, the following characters. They run a definite course, are attended with fever, and frequently with eruptions on the skin, are more or less readily communicable from person to person, and possess the singular and important property of generally protecting those who suffer them from a second attack. They are apt to occur epidemically." "Section B comprises, for the most part, disorders which are apt to invade different parts of the same body simultaneously or in succession. These are sometimes spoken of as constitutional diseases; and they often manifest a tendency to transmission by inheritance."

"Local Diseases" are arranged anatomically in the following sections; viz., Diseases of the Nervous System; of the Eye; of the Ear; of the Nose; of the Circulatory System; of the Absorbent System; of the Ductless Glands; of the Respiratory System; of the Digestive System; of the Urinary System; of the Generative System; Affections connected with Pregnancy; Diseases of the Female Breast; of the Male Mammilla; of the Organs of Locomotion; of the Cellular Tissue; and of the Cutaneous System". And all these sections are divided and subdivided, in a greater or less degree, and with more or less strictness, into groups of diseases, which affect individual organs or parts of organs.

Of the three supplementary classes, the first, entitled "Conditions not necessarily associated with General or Local Diseases", comprises only four items: Still-born; Premature Birth; Old Age; and Debility.

"Poisons" are classified under the heads of: Metals and their Salts; Caustic Alkalies; Metalloids; Acids; Vegetable Poisons; Animal Poisons; Gaseous Poisons; Mechanical Irritants; and Poisoned Wounds.

"Injuries" are divided into General and Local; of which the latter are arranged essentially according to the regions of the body which they may involve; as, Injuries of the Head and Face; of the Eye; of the Neck; of the Chest; of the Back; of the Abdomen; of the Pelvis; of the Upper Extremities; of the Lower Extremities; of the Absorbent System; to which is added a small group of Injuries not Classified.

Throughout the Nomenclature, the various diseases have been numbered consecutively, in such manner that, beginning with Small-pox, the first of the General Diseases, as No. 1, the numbers follow one another through the classes of General and Local Diseases, and so on, through the classes which succeed these, up to the end of the Nomenclature. It may interest the curious to know that there are exactly 1146 diseases and injuries which the Nomenclature Committee have considered worthy of the dignity of being thus numbered, and to know that No. 1146 is prefixed to "Foreign Substances in Cellular Tissue." We may add, that "General Diseases" are numbered inclusively from 1 to 58; "Local Diseases", from 59 to 901; "Conditions not necessarily associated with General or Local Diseases", from 902 to 905; "Poisons", from 906 to 991; and "Injuries", from 992 to 1146. Hence, in this system, every acknowledged morbid condition has its own number; a point of great importance in connection with the registration of diseases, and of still greater importance for convenience of reference.

The names of Diseases intended for Common Use are printed, with their numbers, on the odd, or right-hand, pages only of the volume; the opposite, or left-hand, pages being wholly occupied by their respective equivalents in Latin, French, German, and Italian, so arranged that each language has its own vertical column, and all equivalent words follow one another in the same horizontal line. Thus, against Small-pox on the right-hand page, we find on the left-hand page, the following list.

LATIN EQ.	FRENCH.	GERMAN.	ITALIAN.
Variola.	Variole.	Blattern. *Syn.*, Menschen-pocken.	Vajuolo.

The names for common use are always printed in Roman letters, and generally stand alone; as "1. Small-pox"; "2. Cow-pox"; and so on. But occasionally they are followed by a synonym; as "289. Coryza. *Synonym*, Nasal Catarrh"; or "353. Cancrum Oris. *Synonym*, Gangrenous Stomatitis." Not infrequently a definition is added; as "12. Febricula. *Definition*, Simple Fever, of not more than three or four days' duration"; or "335. Hydrothorax. *Definition*, Passive Dropsy of the Pleura". And, in many places, a short note is appended, either giving some direction, or furnishing some explanation or caution; as "424. Sloughing Sore-throat. *Synonym*, Putrid Sore-throat—Cynanche Maligna. *Note.*—This affection must be distinguished from Malignant Scarlet Fever. And, again, "343. Non-malignant Tumours. Return such tumours according to the list at p. 19."

In glancing down the pages of the volume, it will be seen that the uniformity of numbering is subject to many interruptions; first, by names of diseases which are either not numbered, or are preceded by distinguishing letters or other signs, and which are always "indented", or printed a little within the initial line of the numbered diseases; second, by names of diseases printed in italics, the numbers prefixed to which are placed within brackets, and have no relation to the numbers which precede and follow them.

It is necessary to explain, that the indented names represent simply varieties of the "numbered" diseases which they follow, and that the varieties thus given are by no means always to be regarded as exhaustive, and are sometimes given by way of example only. Varieties of diseases are, of course, to be registered under the numbers of the diseases beneath which they are indented. The following are examples of diseases, of which varieties are also given.

65. Apoplexy.
  Varieties.
  a. Congestive.
  b. Sanguineous. *Synonym*, Cerebral Hæmorrhage.
481. Diseases of Hernial Sacs.
  a. Inflammation.
  b. Fibrinous Effusion, with Closure.
  c. Suppuration.
  d. Dropsy.
  e. Moveable Bodies.
  f. Laceration.

Diseases printed in italics are never to be registered in the places in which they stand, but always in that part of the Nomenclature to which their prefixed numbers refer them. Italicised diseases, in fact, represent, with scarcely an exception, the local manifestations of disease, which, in the Nomenclature, are regarded as General Diseases, and are interpolated, where they are thus printed in italics, for the sake of local classification only. As an illustration of our meaning, we quote from Diseases of the Salivary Glands, at p. 95.

437. Inflammation.
438. Salivation. *Synonym*, Ptyalism.
439. Abscess.
440. Salivary Fistula.
(21). *Mumps.*
(44^1). *Cancer.*
441. Non-malignant Tumours. Etc.

In using the Nomenclature, it is necessary to bear in mind that, under one or other of the five divisions of which it consists, every disease or injury which we are reasonably likely to meet with has a place, a name, and a number, provided for it, under which it is intended that it should be registered. The place and the number are fixed. The name, however, admits, in most cases, of qualification, and in many cases is expected to be qualified. Thus, Small-pox, which stands at the head of the list of "General Diseases", and is No. 1 of the Nomenclature, is divided under this number into two groups: the one group (A) comprising unmodified cases of small-pox; the other group (B) comprising the modified varieties of the disease; and both groups are again subdivided into seven varieties; the intention, of course, being that cases of small-pox should be returned according to their several peculiarities; as cases of "Unmodified Confluent Small-pox", or "Modified Confluent Small-pox", and so on, but that they should all be registered under the same number, 1, and should, as far as possible, be classified in the register, according to their varieties, as varieties of No. 1. It is needless to quote other such examples; for, although they are very numerous throughout the work, the explanation just given is equally applicable to all.

There are certain cases, however, where special series of varieties—for the most part, series of considerable length—are applicable to more than one "numbered" disease, and which as it would have been highly inconvenient to repeat them over and over again, have therefore, severally been given for reference once only, either in a note or in some special part of the volume.

One such series occupies a note on p. 15. This note gives the anatomical order in which local Syphilitic, Cancerous, Colloid, and Scrofulous Affections, are to be returned, under the names and numbers of Syphilis, Cancer, and the rest, and their varieties, as varieties or subvarieties of these several affections. The list corresponds nearly, though not quite accurately, with the anatomical arrangement of Local Diseases.

Another such series is the list of Non-malignant Tumours and Cysts given on pages 19, 21, and 23. This comprises a carefully selected and accurate list of tumours and their subvarieties, accompanied by well considered definitions. The following is the list of these tumours, exclusive of their subvarieties.

Fibrous tumour
Fibro-cellular tumour
Fibro-nucleated tumour
Fibro-plastic tumour
Myeloid tumour
Fatty tumour
Osseous tumour
Cartilaginous tumour
Glandular tumour
Vascular tumour
Nævus
Sebaceous tumour
Molluscum
Warty tumour and warts
Condyloma
Cheloid
Villous tumour
Simple or barren cysts
Compound or proliferous cysts.

A further series is the list of Human Parasites, given in the Appendix, on pages 232, 233, 234, and 235. This is subdivided into Entozoa, which comprise thirty-five named species; Ectozoa, which comprise eight named species; and Entophyta and Epiphyta, which have twelve species assigned to them.

The last series is that of Congenital Malformations, which is also placed in the Appendix, and of which the English portion occupies four pages. For the compilation of this list, which is very elaborate, the Committee were chiefly indebted to Dr. Arthur Farre, who has arranged the malformations in the following groups.

Malformations resulting from incomplete development or growth of parts.
,, ,, incomplete coalescence of the lateral halves or parts which should become conjoined.
,, ,, coalescence of the lateral halves or parts which should remain distinct.
,, ,, the extension of a commissure between the lateral halves or parts (causing apparent duplication).
,, ,, repetition or duplication of parts in a single fœtus.
,, ,, the coalescence of two fœtuses or of their parts.
Congenital displacements and unusual position of parts of the fœtus.
Diseases manifested at or after birth.

Now, Non-malignant Tumours, Parasitic Diseases, and Congenital Malformations, have all been treated in the Nomenclature as Local Diseases, and hence they are repeated, with special numbers, among the diseases of many different organs. Thus, among the Diseases of the Liver, we find—

510. Non-malignant Tumours.
  Return such tumours here according to the list at p. 19.
511. Cyst.
(49^1). *Tubercle.*
512. Parasitic Disease.
  Return cases of this class according to the list at p. 233 (Nos. 14, 21-23, 25, 28).
512*. Malformation.
  Return such cases here according to the list at p. 239.

It will be perceived from this extract that in all cases where, in the Nomenclature, such wide terms as Non-malignant Tumour, Malformation, and the like, are employed, reference is made from them to the corresponding list of varieties, and directions are given to return such cases under their proper numbers, but with the appropriate names which that list supplies. Thus, referring again to the extract above given, under No. 510 case should be returned not, if it can be avoided, as one of non-malignant tumour, but as one of fibro-plastic tumour or vascular tumour, as the case may be, and under No. 512 as a case of echinococcus hominis, or whatever may be the special form of parasite discovered, rather than as one of parasitic disease simply.

The authors of the Nomenclature clearly contemplate that, in making returns of diseases, other items of information beyond the mere names of diseases should be, as far as possible, habitually given. Hence, to many names, notes requesting such further information are appended. For example, under the head of Diseases of the Liver, we find—"502. Abscess. *Note.*—When abscess of the liver is associated with dysentery, injury, or any other condition, the fact should be stated." And many similar examples could be adduced. Again, they have provided in the Appendix, on the 215th and following pages, a long classified list of operations, which (although it is nowhere so specified) is obviously intended to facilitate the return of operations as an addendum to that of the diseases or injuries in which operations may have been required.

From the brief review which we have just given, it will be seen, we think, that the new Nomenclature of Diseases has been, whatever its faults in other respects, very carefully framed to meet the requirements of the ordinary registration and classification of diseases and of deaths. We have shewn that the names and numbers of diseases are very simply arranged, and that notes of reference or explanation abound on almost every page, wherever, in fact, it seems possible that any, the slightest, doubt or difficulty could arise. But, in addition, the Nomenclature is preceded by a very good table of contents, and by rather more than a page of brief but important and clearly expressed "Explanations"; and, above all, it is provided with an Index, which is admirable in its completeness, and is itself an alphabetically arranged nosology. The index occupies no less than eighty pages; and it contains all the names for common use, all the synonyms which are given in the Nomenclature, and also all the Latin names—and these are severally distinguished by the type in which they are printed: thus, the names for common use are printed in Egyptian type, Latin names proper in Roman small capitals, and synonyms, which are not to be employed in the registration of diseases, in italics. After every name, moreover, figures are placed, of which some are in brackets, some are not in brackets. Those without brackets indicate the page where the diseases should be registered; those within brackets where the diseases are entered for the sake of classification only, and not for registration.

MODERN ANÆSTHETICS.

Barth's Portable Compressed Nitrous Oxide.

SIR,—As one of the great obstacles to the use of nitrous oxide in general surgery (at any rate in minor operations) is its bulk, it may interest some of your readers to know that I have recently used Barth's compressed gas on two occasions, with the greatest facility and success, at the Dental Hospital of London. Out of two iron bottles, one foot long and five inches in diameter, containing each fifteen gallons of gas, I thoroughly and promply anæsthetised ten patients who were operated upon by Mr. Ibbetson, and by Mr. R. Hepburn, jun.; and on the following Monday, I anæsthetised eight patients from two similar bottles, again with the most perfect result. Having a few days before had to use two other of Mr. Barth's bottles, and found them act equally well, I cannot but feel that the greatest reliance may be placed on the unvarying efficiency of his compressed gas. It is used either with one of Mr. Barth's small gasometers, or through a bag devised by Mr. Cattlin and supplied by Mr. Coxeter; I have found this latter most convenient when administering the gas in the wards of the Great Northern Hospital. On Monday, September 7th, I gave the gas to a patient of Mr. T. Carr Jackson for the removal of the breast; on this occasion three of Barth's bottles were used, the anæsthesia being kept up for twenty minutes.

In connection with Mr. Jackson's name, it is an interesting fact in the history of the gas, that his father, when lecturing on midwifery in conjunction with the late Dr. Power in the year 1828, mentioned to his class some cases of delayed parturition from simple arrest of the head, in which he had administered nitrous oxide with the effect of producing immediate expulsion, from the momentary impulse it gave to the vital energies. He explained that he had been led to its use by observing the effect upon himself one evening after a day of great fatigue, whilst amusing some friends with its action, all sense of languor disappearing, etc. Mr. Carr Jackson cannot, unfortunately, find the manuscript of this lecture, which was long in his possession, but has, in the lapse of years, been lost or destroyed; but he can vouch for the accurary of the facts.

I am, etc.,

CHARLES JAMES FOX.

THE CINCHONA PLANTATIONS ON THE NEILGHERRIES.—We (*Englishman*) are sorry to learn from the report of the superintendent of Cinchona plantations on the Neilgherry Hills, that the past year has not been so favourable to the plantations as previous seasons. This is attributable principally to the almost entire absence of rain during the north-east monsoon, causing the young plants which had lately been transplanted to fail considerably. The older plants had not suffered at all from the want of moisture. A large falling off in the increase of plants during the year is also assigned, partly to the same cause and partly to the demand for plants having almost ceased, the monthly number of cuttings and seedlings having fallen from 60,950 during the previous year to 48,267 during the year under notice. The total number of plants on March 31st last was 2,353,370, showing an increase of over 425,000 during the year. The first plants that were permanently planted in 1862 have attained a height of seventeen or eighteen feet, and have assumed quite a tree-like appearance. These plants, as well as those of the two following years, now produce an annual supply of seed, for which there is a large demand, as the public are beginning to appreciate the profits to be derived from Cinchona plantations. The system of coating the trees with moss has been found most beneficial in increasing the quantity of alkaloids in the bark, the proportions having risen in trees thus treated from 0.761, to 2.21 during the year 1867. This has also caused a corresponding rise in the value of the bark, the prices at the public sales in England having been higher than those obtained for the same description of American bark. A new species, a variety of *C. Calisaya*, which has been presented to the superintendent by Mr. Howard, the Government analyser, has been successfully propagated and promises well, yielding one of the best sorts of yellow bark. Some other varieties from Java have also been received; and the superintendent is anxious to make his collection as perfect as possible by the acquisition of other species, more particularly some of the best sorts from America.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE first meeting of the twelfth session, 1868-69, will be held at Rochester (at St. Bartholomew's Hospital), at 3.30 P.M., on Friday, 25th September. Dr. BURNS will occupy the Chair.

Dinner will be ordered at the Bull Hotel for 6 P.M.

The Honorary Secretary requests that he may be relieved of his duties in consequence of over-wrought eyes.

FREDERICK JAMES BROWN, M.D., *Hon. Secretary.*

Rochester, September 7th, 1868.

WEST SOMERSET BRANCH: ORDINARY MEETING.

AN ordinary meeting of the above Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, Sept. 30th, 1868. Dinner at 5 o'clock; after which, papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary,

Taunton, Sept. 8th, 1868. W. M. KELLY, M.D.

SOUTH MIDLAND BRANCH.

THE autumnal meeting of the above Branch will take place at the Town Hall, Luton, Bedfordshire (Dr. PRIOR, President), on Wednesday, September 30th, at 2 P.M.

Gentlemen intending to read cases or papers, are requested to send the names or titles of the same, without delay, to Dr. Bryan, Northampton.

J. M. BRYAN, M.D., Northampton } *Hon. Secs.*
G. P. GOLDSMITH, Esq., Bedford }

Northampton, September 8th, 1868.

CORRESPONDENCE.

SECOND-HAND REFERENCES.

SIR,—The reference which, in my address before the British Medical Association at Oxford, I made to Professor Niemeyer's work on Medicine, furnishes a good instance of the great truth that it is unsafe to take any assertion as to a third writer at second-hand. Professor Niemeyer's words to which I referred, may be found at page 334 of the second volume of the seventh edition of his *Lehrbuch der Speciellen Pathologie und Therapie.* They may be translated thus: "According to an ingenious hypothesis of Du Bois-Reymond, which Dr. Möllendorf has worked out further, attacks of hemicrania depend upon a dilatation of the ramifications of the cerebral carotid of that side which is the consequence of an abnormal innervation of its vessels from the uppermost cervical sympathetic ganglion. According to this view, the brain would during the attack be in a similar condition to that in which the ear of a rabbit is when the cervical sympathetic is cut through." These words I took as an authoritative exposition of the theory of pain, which I dissented from. To my great surprise, I found some days after my address, from a translation of a paper of Du Bois-Reymond's in Brown-Séquard's *Journal*, No. XIII, 1861, the original of which appeared in Du Bois-Reymond's and Reichart's *Archiv* of the previous year, that Niemeyer had adduced the name of the Berlin Physiologist in support of exactly the opposite theory to that which this, his paper, advocates. In this paper, Du Bois-Reymond, writing of a neuralgic affection, from which he has suffered at intervals for many years, tells us that his view is that his hemicrania is "*a tetanus of the muscular coat of the arteries of the side of the head which is affected, or in other words, a tetanus produced by the cervical portion of the great sympathetic of the right side.*" Indeed, as if to show how entirely the morbid affection corresponds with the results of physiological stimulation, and its cessation with the results of experimentally produced cessation of the action of the sympathetic, Du Bois-Reymond says "when the fit approaches its termination, the right ear becomes red: I feel there a sensation of considerable heat, and the hand can appreciate the rise of temperature."

Surely, Whately could not have wished for a more happy illustration of his "Fallacy of Reference."

I am, etc., GEORGE ROLLESTON.

Oxford, September, 1868.

WESTMINSTER HOSPITAL.

Sir,—Whatever may be the discrepancies between the letter of the Westminster Hospital diet-tables, and their actual working, the facts, as stated by Dr. Radcliffe and myself, are strictly true. The medical officers have the power of ordering with nominally "low diet," not only one of the extras mentioned in the table, but two or more at the same time, as they may judge necessary. Thus a patient is constantly put upon "broth and pudding," "chop and beef-tea," "fish and broth," and so on. Moreover, other extras not included in the table are very frequently ordered, and appear in the weekly return made by the matron to the board. To such an extent, indeed, are these extras added, that last year the sum of £122 : 1 was expended upon them; chiefly upon milk and eggs, articles of diet, I need scarcely say, of the utmost importance in the treatment of the sick.—I am, etc.,

George Fincham.

⁂ We did not for one moment cast a doubt upon the facts stated by our correspondents in their letter of last week. We merely observed that the system of dietary as dispensed by them was contrary to the printed regulations of the hospital, corrected by the Secretary up to July, when our report was framed. This Dr. Fincham does not deny. He, however, makes a statement which does not bear out his remarks on the liberality of the dietary. He states that the sum of £122 : 1 was expended upon extras—chiefly upon milk and eggs—which he rightly believes to be of the utmost importance in the treatment of the sick. This sum is entered in the annual report as the cost of "additional extras," and apparently includes all eggs, as they are not elsewhere mentioned. At Charing Cross Hospital, with at least 40 beds less daily, eggs alone cost £144 : 3 : 6, which is not an extravagant sum. Again, the items cheese and butter cost £26 : 16 : 3½ at the Westminster Hospital last year; whereas, at St. Mary's Hospital, with about the same daily average of patients, butter alone amounted to £152. These are merely a few out of many examples.

MAGENDIE AND BELL.

Sir,—Having been absent from home since the meeting of the British Medical Association at Oxford, I had not, until a day or two ago, an opportunity of seeing Mr. Shaw's letter in your Journal of August 15th. Let me now offer some brief observations in reply to it. I would say on the threshold, that Mr. Shaw's warmth of style is perhaps pardonable; it is at least not unnatural, when it is remembered that he is advocating the claims of his friend and relative. For myself, I am no partisan; I have no object, save to ascertain the truth; and I am quite prepared to admit that I have come to a wrong decision if fresh evidence comes before me.

Possibly I have given too much weight to the testimony offered by Bell's pamphlet of 1811; yet we must recollect that it was upon this that Bell himself relied. I can assure Mr. Shaw that I have no desire "to constitute myself umpire on this debated subject." I contemplated reprinting Bell's pamphlet of 1811, and so enabling each physiologist intersted in the subject to form his own judgment. When I was at Oxford, Mr. G. H. Lewes suggested that the pamphlet should be reprinted in the *Journal of Anatomy and Physiology*, through which medium it would come before physiologists at home and abroad. I am happy to learn that this suggestion is going to be carried out; and that the November number of the above journal will contain an exact reprint of this pamphlet, upon which, if we may judge from the preface to his "Nervous System of the Human Body," Bell himself mainly grounded his claim to priority. The matter will thus become one regarding which each inquirer may satisfy himself.

I am, etc., Robert McDonnell.

REPRESENTATION OF THE MEDICAL PROFESSION IN THE MEDICAL COUNCIL.

Sir,—Mr. Jemmett is severe. He says I am the author of "the most revolutionary proposal that has yet been made" for the representation of the profession in the Medical Council, and "of the most illiberal of all illiberal statements lately made." To be at once a red republican and a red-hot Tory is a combination of character which I never expected to realise in *propriâ personâ*; and, shrinking even now from the combination, I venture to believe that Mr. Jemmett is mistaken. Why am I considered so revolutionary? Because I should like to see 12 members, instead of 8, representing the profession in the Medical Council. I am unfortunate. The number 8, advocated by the British Medical Association, is the figure of safety, but the number 12 is the figure of revolution. It is, at least, satisfactory to be able to put the finger on the exact numerical point where revolution begins. To rebut this charge of revolution I might, perhaps, be allowed to urge that the British Medical Association has chosen eight as the *lowest* number which the profession ought to enjoy, and rather on prudential grounds than by reason of its intrinsic merit. But this would be to drag the Association too near to the revolutionary line. Then, I might justify the choice which I have made of this revolutionary figure 12, by pointing to the 16,000 unrepresented members of the profession, or, by adducing considerations derived from the constitution of the Council; but Mr. Jemmett wishes the profession to be represented in one way and I wish it to be represented in another, and Mr. Jemmett objects to the Crown Nominees "holding the balance of power" between the representatives of the corporation and the representatives of the profession. So I must even leave my unfortunate figure 12 to the censure of Mr. Jemmett.

But why am I considered so illiberal? Because I used the word "surgeon" in an every-day sense (What other word *could* I use?) to denote those amongst us who are more particularly interested in the study and practice of surgery, as distinguished from those engaged in general practice; and, because I took the Fellows of the College of Surgeons as representatives of this class, and argued that the power now possessed by the Fellows would be taken away if votes were given to members of the College. So it would. What would 1,400 Fellows be among 15,000 Members? As to my use of the word "surgeon," I was fully aware that all "surgeons" are not Fellows of the College, nor all Fellows "surgeons"; but this want of complete correspondence I was surely entitled to disregard, as it did not affect my argument, and as no one would deny that the Fellows of the College represent, to all intents and purposes, the interests of English Surgery. If this be "illiberal", I submit to the epithet; but I take occasion to remark that the suggestion of Mr. Jemmett that, because I am a Fellow, I have "no sympathy with Members of the College, but despise them," is not only unsupported by any act or word of mine, but stands refuted by the fact that, for these 15,000 unrepresented members, I have dared to make "the most revolutionary proposal" within the experience of Mr. Jemmett. Passing, however, from these matters, I come to Mr. Jemmett's sentence.

"He" (Mr. Rivington) "objects to the scheme of the representatives of each corporation being chosen by those who hold its diplomas; and yet the next paragraph, almost in the words of Dr. Prosser James, he argues that the Fellows of Colleges and Graduates of Universities should elect the representative. This seems to me the most astounding way of answering one's own arguments."

This self-refutation is the offspring of creative fancy. The real state of the case is this: the general practitioners require representation. Dr. James says, or is understood to say, "Let them be represented by giving them votes for the representatives of the corporations whose diplomas they hold." I object to this, that it could not be done at Apothecaries' Hall, or at the Colleges, without new Charters, and that it is undesirable to change the constitutions of the Colleges in order to give general practitioners representation. I point out, however, that *to some* extent Dr. James's views accord with my own, and can be carried into effect without disturbing the constitution of the Corporations. And then, because I admit an agreement with *some portion* of Dr. James's views, and a portion which did not originate with Dr. James, Mr. Jemmett says that I have demolished my own arguments against the *other portion* in which I have distinctly stated beforehand that Dr. James and myself do not agree. Now, this *other portion* pertains to the very vital point of this discussion, which is not the representation of the *physician* or the representation of the *surgeon* (if I may use the term without "illiberality"), or of the Society of Apothecaries, or of the University Graduates, but the representation of the *general practitioner*, the absence of which has occasioned the efforts that are being now made in his behalf by the advocates of both the *direct* and *indirect* plans. The latter plan now appears to be becoming untenable; for Mr. Jemmett intimates that, as Dr. James does not use either the word "Fellow" or "Member" in his address, it may after all turn out that when Dr. James spoke of the representative of each Corporation being chosen by those who hold its medical diplomas, he did not intend to go beyond the Fellows at the College of Surgeons, or the Fellows and members at the College of Physicians. But the adoption of this explanation involves two difficulties. The first is, that to take the words "those who hold its medical diplomas" to mean not "all those," but "some of those," is to take the words in an unnatural sense; and the second is, that to do so, is utterly to put an end to the *indirect* scheme, as supplying the great want —the representation of general practitioners. For is it at all likely that general practitioners will be satisfied by the mere gift of votes to Fellows and graduates, or feel that they are properly represented thereby in the Medical Council? Hence, for Dr. James to stop short at the "Fellows" would be at once to admit the necessity of *direct* representation for the general practitioner.

Towards the end of his letter, Mr. Jemmett has fallen into two errors in one sentence. Alluding to the one other point in my letter, which he considers the most plausible of all, he says: "He (Mr. Rivington) thinks that the indirect plan contains the seeds of its own decay, because he has so little faith in his own Colleges that he fancies that they would cease to exist if a general State Licence were established." If Mr. Jemmett will turn to my letter, he will find that I said nothing at all about a general *State* Licence, nor about the *Colleges* ceasing to exist. I spoke only of a single Examining Board being constituted for a general licence, and the consequent extinction, in time, of the *members* of the College of Surgeons, and the *licentiates* of the College of Physicians. I am not an advocate of a general State Licence requiring new machinery and new powers to be created by Act of Parliament, and I have perfect faith in the stability of the Colleges.

And now, sir, I come at last to the best and most practical part of Mr. Jemmett's letter; namely, that in which he claims my assistance in carrying out the views which I hold in regard to liberalising the government of the Corporations. For this purpose I am ready to work with Mr. Jemmett, or Dr. Williams, or Mr. Johnson, or my friend and colleague Dr. Prosser James, to whom I would accord all praise for his candour and courage; but I cannot say that I am very sanguine of an early success for our efforts. Wrongly or rightly, I deem it more easy to obtain a new Act of Parliament for the representation of general practitioners in the Medical Council. No great and *united* effort has been made to effect this end. There has been no organisation of the profession, and no general collection of opinion. Yet, if the profession were properly organised for this particular purpose, and if the right means were adopted for laying the opinion of the profession emphatically and unmistakably before the Government (after the general election has decided what Government we are to have), I repeat my opinion that, under such conditions, the representation of the general practitioner "might be brought within a year to a triumphant issue with or without the co-operation of the Medical Council."—I am, etc.,

WALTER RIVINGTON.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

THE COCKERMOUTH WORKHOUSE.

At the meeting of the Cockermouth Board of Guardians on August 24th, one of the members, Mr. Walker, alluding to an article in the British Medical Journal of August 8th, said that part of the paragraph relating to the insufficient accommodation at the workhouse he admitted to be quite correct, but the latter part of it was without any foundation, where it went on to say that they (the guardians) "would have none of it," meaning that they were totally opposed to any improvement at the workhouse. He believed the guardians were anxious to effect any improvements which were required at the workhouse.—The chairman said that there had been a deal of improvements and extensions in the workhouse within the last few years, which had put the board to a great deal of expense, and they would be entirely ineffectual if they adopted the suggestions expressed by their inspector.—The inspector (Mr. Hedley) proceeded to criticise the plans proposed by the guardians, and which had been sent to him by the Poor-law Board. He thought that the accommodation which they proposed to provide would be very limited. There was another question he wished to mention—their sick nurses. He went over the sick ward, and saw one old woman who could not feed herself, and she was being fed by a pauper inmate. He did not consider the lying-in ward at all sufficient. There was only one room, and at the present time there was no less than thirty-five women in it, and only seven beds for their accommodation. He was bound to tell them that, considering the size of their workhouse and the extent of the Union, they had an unusually large number of midwifery cases. As regarded the accommodation, if the board would refer to the last circular from the Poor-law Board, they would there see that a room was required in all workhouses called a "labour room." This room was really indispensable, as it was requisite that women in labour should not be in the same room as those just admitted to the lying-in ward. He wanted to point out that they required a hospital separate and detached from the main building. He should also like to see some responsible officer appointed to look after the sick. After a few other remarks the inspector said the plans were now before the guardians, and if they were not inclined to reconsider them, of course he should send them into the Poor-law Board again; but he did not hesitate to say that there was a great error in those plans with regard to proper classification and arrangement of the accommodation for their sick inmates. Did he understand the guardians to say that the plans had been sent up to the Poor-law Board with the sanction of their medical officer?—The chairman replied that it was a fact that the plans had been approved of by the medical officer. —Some further remarks were made, in the course of which the chairman "had not the slightest hesitation in saying that their workhouse would bear comparison with any other in the north of England;" and Mr. Fletcher remarked that "he did not think there was a workhouse anywhere which could compare with theirs for comfort and accommodation." —Ultimately, it was decided to send back the plans, as proposed by the guardians, to the Poor-law Board.

With reference to the statement that the medical officer approved of the plans, Dr. Dodgson has written to the board that he never saw the plans, and therefore had no opportunity either of approving or of disapproving of them. "The only sanction or approval I gave to the resolution arrived at by the Committee was this: I was asked if certain measurements for the ground plan for the proposed building would give sufficient space for the accommodation of the old and infirm women then in the house (twelve in number). On calculating the cubic space of such a building, I stated that, provided it had a lofty ceiling, it would allow to each of the twelve inmates something over the lowest amount of cubic space which the Poor-law Board will sanction. I would remind the board, however, that I had, in a written communication of a previous date, recommended that accommodation should be provided for at least twenty old and infirm women."

⁂ The foregoing abstract of the proceedings of the Cockermouth Guardians confirms rather than disproves the correctness of our remarks on their conduct. We admit that they have proposed certain alterations which they call improvements; but these, for apparently good reasons, are not sanctioned either by the inspector or by their medical officer. When the deficiencies of their plans are pointed out to them, the reply is, that "the improvements are the best under the circumstances," and that they must "study the pockets of the ratepayers." And twice at least in the discussion there is an opinion expressed to the effect that the arrangements of the Cockermouth Workhouse are as good as can be found anywhere. It is plain that the Cockermouth Guardians have but a limited knowledge of what is required in a workhouse; and further, that they are very unwilling to be taught.

THE BODMIN GUARDIANS AND THEIR MEDICAL OFFICER.

The Number 3 District of the Bodmin Union comprises Bodmin Parish, Bodmin Borough, Helland, Lanhydrock, and the Union Workhouse, having an area of 13,421 acres, and a population at the last census of 5,230. The medical officer of this district has for years been paid £58 : 15 *per annum*, inclusive of surgical and midwifery fees. Of this sum about £25 a year is allotted for an almost daily visit to the workhouse. Mr. Mudge, the present medical officer, who has had a short experience of the office, has found that, if his services are fairly, not to say zealously rendered, he is very much underpaid; and he has therefore asked for an increase of his salary. Now, when it is considered that the average daily number of paupers in the house is 163, and that the daily sick-list stands at 33, it must, we think, be admitted, that it is too much to expect an educated gentleman to attend to these for a daily wage of about 1s. 4½d. Mr. Mudge's application was either not entertained, or was refused by the Bodmin Board; and he accordingly applied to the Poor-law Board, who, as is their wont, referred his letter back. The Bodmin Guardians having persisted in their refusal, Mr. Mudge has resigned. The post is now open to competition, and it remains to be seen how Mr. Mudge's professional brethren will support him in his very reasonable course.

Golding, Jas. P., M.D., appointed to No. 4 Cork Dispensary District, Cork Union.
Holmes, W. H., Esq., appointed to No. 7 Cork Dispensary District, Cork Union.
Jones, Henry McN., M.D., appointed Medical Officer to No. 3 Cork Dispensary District, Cork Union.
O'Flynn, Jno. D., M.D., appointed to No. 8 Cork Dispensary District, Cork Union.
Payne, Christopher J., M.D., appointed Medical Officer and Registrar to the Clifden Dispensary District, and Medical Officer to the Workhouse and Fever Hospital, Clifden, co. Galway.
Peirce, George, M.D., appointed Medical Officer to the Workhouse and Fever Hospital of the Newcastle Union, co. Limerick.
Todd, Joseph, Esq., appointed Medical Officer and Registrar for the Drumquin District of the Castlederg Union, co. Tyrone.
Watson, William R., Esq., appointed Medical Officer and Public Vaccinator for the Parish of Kirkmabreck, Kirkcudbrightshire.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

The Professors of Medicine and Natural Science, having found the time which has usually been allotted to their lectures in each term insufficient, intend to begin their courses in the ensuing terms earlier than has hitherto been the custom. The courses in Anatomy and Chemistry will, accordingly, begin on October 12th and on January 18th.

It is expected that examinations in Natural Science for scholarships will be held in the several Colleges as follows: Sidney, October 7th; St. John's, in April or May; Downing, in May; St. Peter's, in May; Trinity, on Easter Monday. That in Trinity is open to all undergraduates of Oxford or Cambridge. The others are open to all students (whether they are members of the Church of England or not) who will not have commenced residence in the University at the times of the respective examinations.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from 9th *to* 15*th Sept.* (*both inclusive*).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	30.084
Highest reading of do. (corrected & reduced), on 9th, at 10 A.M.	30.383
Lowest ditto Ditto on 14th, at 2 P.M.	29.940
Range of pressure during the week	00.443
Mean temperature of air in shade	61.3
Mean temperature of evaporation	56.8
Mean temperature of dew-point	52.9
Mean degree of humidity (saturation=100)	75.
Mean maximum temperature of the week	68.1
Mean minimum temperature of the week	49.5
Calculated mean temperature of the week	58.8
Maximum temperature of air in shade, on 11th	72.8
Minimum temperature (protected), on 11th	43.2
Minimum temperature (exposed on grass), on 11th	35.8
Range of temperature during week	37.0
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 13th	114.9
Lowest ditto ditto on 15th	87.4
Mean amount of clouds (0—10)	3.1
Total rainfall	*nil.*
Mean amount of ozone (0—10)	5.3

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	2	4	0	0	0	0	0	1	3.4
2 P.M.	0	3	3	1	0	0	0	0	0	3.3
10 P.M.	0	4	1	0	0	0	0	0	2	2.0

Mean force of wind (0—12) 2.9

During the week the weather has been fine, and somewhat cooler than last week, but still very dry, there having been no rain since the beginning of the month. Atmospheric pressure has fluctuated with small limits, and has been on the whole pretty uniform. Winds have been light, and almost entirely NE. and E. A few cases of acute rheumatism have occurred, but the general health is good.

Kew, September 16th, 1868.

Bequests.—Miss Elizabeth Polly, of Bocking, Essex, has bequeathed £100 to the Colchester Hospital.

Cottage Hospital, East Grinstead.—A bazaar was held at Rowfant, the seat of Sir Curtis M. Lampson, Bart., on the 5th and 7th inst., when the sum of £250 was received for the benefit of the hospital. This amount included a donation of £20 from Mr. Peabody.

Ancient Remains.—In making the continuation of the Metropolitan District Railway, which runs from Brompton into Palace Yard, a great quantity of the horns and antlers of red deer were found, about thirty feet below the surface of the roadway, at the end of Victoria Street next to Westminster Abbey. Below the surface in front of Westminster Hospital, they were also met with in great abundance.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, Sept. 10th, 1868.

Brookhouse, Charles Turing, 118, High Street, Deptford (Guy's)
Ferguson, Daniel William, Bridlington (Hull)
Minter, Edward Withers, Southsea, Hants (University)
Shorter, Henry Goldsworthy, Hastings (Guy's)

At the same Court, the following passed the first examination.

McCann, Charles, Westminster Hospital
Solly, Stephen Francis, Westminster Hospital
Wilder, Henry B., Westminster Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

ASYLUM FOR IDIOTS, Earlswood—Assistant Medical Officer.
BEDFORD UNION—Medical Officer for the Turvey District.
BIRMINGHAM GENERAL HOSPITAL—Resident Medical Officer and Tutor.
CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square—Physician.
CHELTENHAM COLLEGE—Surgeon.
CLOGHER UNION, co. Tyrone—Medical Officer for the Aughnacloy Dispensary District.
DARLINGTON UNION, Durham—Medical Officer for the Haughton-le-Skerne District.
DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon.
DEVON AND EXETER HOSPITAL, Exeter—House-Surgeon and Apothecary.
GLASGOW ROYAL INFIRMARY—Surgeon; Two Assistant-Physicians; and and Two Assistant-Surgeons to the Dispensary Department.
KINGTON UNION, Herefordshire—Medical Officer for the Eardisley District.
KIRKPATRICK-DURHAM, Kircudbrightshire—Parochial Medical Officer.
MACCLESFIELD DISPENSARY—House-Surgeon.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
PARSONSTOWN UNION, King's County—Medical Officer for the Kennitty Dispensary District.
ROYAL CORNWALL INFIRMARY, Truro—House-Surgeon, Secretary, and Dispenser.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician.
ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.
SHEFFIELD GENERAL INFIRMARY—Physician.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Physician; Physician-Accoucheur; Surgeon.
ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street—Surgeon.
ST. PANCRAS WORKHOUSE—Medical Officer for Males.
SWINFORD UNION, co. Mayo—Medical Officer for the Kiltamagh and Bohola Dispensary District.
TRINITY COLLEGE, Dublin—Professor of Botany.
WESTERN GENERAL DISPENSARY, Marylebone—Physician-in-Ordinary.

MEDICAL APPOINTMENTS.

Casey, Edward, M.B., appointed Senior Assistant Medical Officer to the Gloucester County Asylum.
Davidson, Alexander Dyce, C.M., appointed Surgeon to the Aberdeen Ophthalmic Institution, *vice* J. R. Wolfe, M.D., resigned.
Hiron, William N., Esq., appointed Resident Medical Officer to the Westminster General Dispensary.
Pritchard, H. J., Esq., appointed Junior Assistant Medical Officer to the Gloucestershire County Asylum.
Shaw, Henry S., Esq., appointed Senior Resident Medical Officer and Secretary to the Leeds Public Dispensary.

Indian Army.

Baillie, Assistant-Surgeon N. B., to be Surgeon Bengal Army.
Bateson, Assistant-Surgeon R. S., to be Surgeon Bengal Army.
Bow, Surgeon J. C., M.D., to be Surgeon-Major Bengal Army.
Browne, Assistant-Surgeon J., to be Surgeon Bengal Army.
Dallas, Assistant-Surgeon A. M., to be Surgeon Bengal Army.
Ince, Assistant-Surgeon J., M.D., to be Surgeon Bengal Army.
Jones, Assistant-Surgeon J., M.D., to be Surgeon Bengal Army.
Kilkelly, Assistant-Surgeon C., M.B., to be Surgeon Bengal Army.
Mills, Surgeon J., to be Surgeon-Major Bombay Army.
Pettingal, Assistant-Surgeon F. J., to be Surgeon Bengal Army.
Powell, Assistant-Surgeon F., M.B., to be Surgeon Bengal Army.
Wright, Assistant-Surgeon T. P., to be Surgeon Bengal Army.

To be Assistant-Surgeons, Bengal Army.

Cameron, A., M.D.
Carmichael, J. C. G., M.D.
Cunningham, D. D., M.B.
Evers, B.
Grant, A. G., M.B.
Harvey, W.
Jackson, W.
M'Laren, G. G., M.B.
Monteath, J. J., M.D.
Stevens, R. H., M.B.
Whitwell, H.

To be Assistant-Surgeons, Madras Army.

Archdall, H. M. G.
Dalgavins, A. E.
Fitzpatrick, J. F., M.D.
M'Arthur, A., M.B.
M'Dermott, J. P.
Martin, P. R., M.D.
Mookerjee, P. N.

To be Assistant-Surgeons, Bombay Army.

Hay, G. W. R., M.D.
Roche, J., M.D.

Royal Navy.

Eames, William J., Esq., Surgeon (additional), to the *Flora*, for Ascension Mountain Hospital.
Mitchell, Alexander, M.D., Assistant-Surgeon, to the *Excellent*.
Murphy, John, Esq., Surgeon (additional), to the *Flora*, for Ascension Hospital.

BIRTHS.

EDWARDS.—On August 28th, at Belmont, Shrewsbury, the wife of *Henry Nelson Edwards, Esq., Surgeon, of a daughter.

GIBBON.—On September 15th, at 39, Oxford Terrace, Hyde Park, the wife of *Septimus Gibbon, M.B., of a daughter.

JOYCE.—On September 9th, at Rolvenden, Kent, the wife of *Thomas Joyce, M.D., of a son.

MARRIAGES.

GRIMBLY, Richard, Esq., Surgeon, Banbury, to Frances, second daughter of the late John CHEYNE, Esq., Solicitor, Liverpool, at Woodstock, on September 1st.

KINNERSLY, William Thomas, Esq., of Binfield Manor, Berks, to Bertha Rose, eldest daughter of *M. A. Bazille CORBIN, Esq., Surgeon, Guernsey, at St. Stephen's, Guernsey, on September 9th.

SKENE, William, M.D., of Troon, Ayrshire, to Euphemia, youngest daughter of the late William THOMSON, Esq., Solicitor, Jedburgh, at Edinburgh, on Sept. 8th.

WHITTON, Wm., Esq., Solicitor, Towcester, to Frances L. E., daughter of *Thomas COLLIER, Esq., Surgeon, of the same place, on September 3rd.

WICKHAM, Joseph, M.D., of Penrith, to Fanny, only daughter of the late Joseph JACKSON, M.D., of the same place, at Buxton, on September 3rd.

DEATHS.

*COUSINS, Edward, Esq., Surgeon, of 215, Camden Road, aged 45, on Sept. 1st.

DOYLE, James T. I., M.D., Assistant-Surgeon Madras Army, at Madras, aged 37, on July 17th.

GAYE, Wm T., M.B., of Williton, Somerset, at Fulham, aged 45, on August 14th.

INGRAM, Charles B., M.D., at Steyning, Sussex, aged 35, on August 20th.

*THURSFIELD, R., Esq., Surgeon, at Broseley, Shropshire, aged 68, on Sept. 5th.

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THE BOMBAY MEDICAL RETIRING FUND.—The Secretary of State for India has sanctioned the transfer of the assets, liabilities, and management of the Bombay Medical Retiring Fund to Government, by whom the business of the Fund will hereafter be transacted.

CONVICTION OF A MEDICAL MAN FOR PRODUCING ABORTION.—Dr. C. T. Schuman was tried in the Criminal Court at Cincinnati recently, and found guilty of malpractice in producing abortions. He was sentenced to pay 500 dollars, and sent to the city jail for 30 days.

ROYAL COLLEGE OF SURGEONS.—It is stated that, at the recent preliminary examinations in Arts, etc., 247 candidates presented themselves, of which number 21 passed for the fellowship, and 194 for the membership, of the College. These gentlemen can at once enter on their hospital studies.

MEDICINE IN THE EAST.—From an interesting report just published on Public Instruction in the Lower Provinces of the Bengal Presidency, it is stated that the number of undergraduate students attending the English classes in the Medical College has risen from 128 at the end of the previous year to 139 in the early part of the ensuing year; but the average monthly attendance has been somewhat lower, being returned at 128, against 136 for the preceding session. The Bengali classes are increasingly popular, and form a most important department of the Medical College.

TENEMENT HOUSES IN NEW YORK.—A dissertation on tenement houses, recently published by Dr. W. F. Thoms, gives some valuable information on an important subject. It is believed that there are twenty thousand tenement houses in New York City, which contain, on an average, four families to each story, with five persons to each family, each person having about fifteen square feet of ground area and four hundred and eighty cubic feet of air—one thousand cubic feet of air being absolutely necessary for the health of each individual.—*Medical and Surgical Reporter.*

A GREEN COLOUR FOR SWEETMEATS.—Professor Artus gives the following formula for a beautiful green colour, devoid of poisonous properties. 5 grs. of saffron are shaken up with ¼ oz. of distilled water, and the mixture allowed to stand twenty-four hours; at the same time, 4 grs. of indigo carmine are shaken up with ½ oz. of distilled water, and the mixture also allowed to stand for twenty-four hours. At the end of this time, the two solutions are mixed together, and a very fine green solution, capable of colouring five pounds of sugar, is produced.

CARBOLIC ACID FOR SNAKE-BITES.—In Australia carbolic acid, taken internally and used as a caustic to the wound, is considered to be beneficial, and perhaps, a specific cure. Two cases of snake-bite have been successfully treated with carbolic acid. The first case was that of a young lad bitten by a tiger-snake, the most venomous these colonies produce. Six hours after the boy was bitten, there were administered ten drops of pure acid, in brandy and water every few minutes. The operator declares that, "from a pallid countenance, slow pulse, and semi-comatose condition, the patient rallied to a bright expression, ruddy glow, and quick pulse, and the recovery, though slow, was continuous and certain."—*Homeward Mail.*

MORTALITY IN LINCOLN.—The mortality of Lincoln at the present time is higher than in any town in the kingdom. From the report of Dr. Harrison, the medical officer of health, lately presented at the meeting of the local board, we learn that the deaths in the four weeks ending August 25th numbered 87, being at the annual rate of over 45 per thousand. Surely, after this, we shall no longer be told that the citizens have no grounds for alarm, and that those gentlemen who have interested themselves in endeavouring to improve the sanitary state of the city are the greatest enemies of the working classes—*Lincolnshire Chronicle.*

CONNECTICUT HOSPITAL FOR THE INSANE.—The general hospital for the Insane, at Middletown, Connecticut, is said to be one of the most perfect of its kind in the country, and one of the most complete in the world. The rapidity with which is has been built is certainly surprising. Within thirteen months from the time of breaking ground for the foundation, the main part of the building was sufficiently completed to receive a number of patients. All the interior arrangements of the building are spoken of in the highest terms.—*Medical and Surgical Reporter.*

MONSTROSITY.—The *St. Louis Medical Reporter* gives, . on the authority of the *Richmond and Louisville Medical Journal*, an account of a remarkable case of monstrosity. The following description is furnished by Professors Joseph Jones and Eve, of the Nashville University. The infant, J. Myrtle Corban, has four legs and two distinct external female organs of generation, with two external openings of the double rectum. The external genito-urinary organs are as distinct as if they belonged to two separate human beings. The fæces and urine are passed (most generally simultaneously, particularly the urine) from both external urinary and intestinal openings, situate respectively between the left and right pairs of legs. The head and trunk are those of a living, well developed, healthy, active infant of about five weeks, whilst the lower portion of the body is divided into the members of two distinct individuals, near the junction of the spinal column with the os sacrum. As far as our examination could be prosecuted in the living child, we are led to the belief that the lower portion of the spinal column is divided or cleft, and that there are two pelvic arches supporting the four limbs, which are situated upon the same plane. The four lower extremities exist in pairs on both sides of the median line, which resembles the cleft of an ordinary pair of legs; but here there are no marks whatever of anus or genital organs, and upon pressure we discover no os coccygis or sacrum. The outer legs of both sides are the most natural of the four (though the foot of the right one is clubbed), but are widely separated by the two supernumerary ones, which are less developed, except at their junction with the body, from which they taper to the feet and toes: the latter are turned inwards. One toe is bifid on the left extra inward extremity. At birth these extra legs were folded flat upon the abdomen. We are led to believe that there are two uteri as well as two recta; in fact, that the pelvic organs are double. Of course a minute dissection would alone expose the true condition of these parts.

INQUESTS IN 1867.—The coroners' returns. which are for the year ending the 31st December, 1867, shows that 24,648 inquests were held. The verdicts were as follows:—Murder, 255; manslaughter, 179; justifiable homicide, 6; suicide, 1,356; accidental death, 11,172; injury, 208; found dead, 2,702; natural death, 8770. In the total number of inquests in 1867 there is a decrease of 278, compared with that of the previous year. Verdicts of manslaughter show a decrease of 44, or 19.7 per cent. Of 6,872 infants under seven years of age upon whom inquests were held 5,569 were legitimate and 1,354 were illegitimate. In 19.5 per cent. of the cases of inquests on infants under seven years of age the infants were illegitimate; in 1866 the proportion was 19.4 per cent.; in 1865, 20.4; and in 1864, 18.5. As usual, there were more murders of infants aged one year and under in the county of Middlesex than all the rest of England and Wales put together. Of 83 violent deaths of infants in this country, no less than 54 were returned last year in the central district; 237 inquests were held in Middlesex upon illegitimate infants aged one year and under. Of the 4,113 infants aged one year and under on whom inquests were held in England and Wales in 1867, 2,960 were legitimate and 1,153 were illegitimate. The total number of verdicts of murder in each of the three years, 1865-7, was 227, 272, and 255 respectively, whereof 175, 166, and 149 respectively were infants aged one year and under. In order to ascertain the number of illegitimate children that are the victims of infanticide, it is necessary to know what proportion of the 149 infants aged one year and under who met with a violent death was illegitimate; but on this point the returns fail. The cost of coroners' inquests, including salaries and travelling allowances, was £76,605, averaging £3 2s. 2d. per inquest; in 1856, the average cost of an inquest was £3 1s. 7d.

THE UTILISATION OF SEWAGE.—The problem of utilising sewage is receiving a careful trial in France. The sewer water is purified with sulphate of alumina in the proportion of fourteen grains to the gallon, and is then ready for use. The manure thus prepared sells at 15s. per ton, and the cost of its production varies from one-fifth to one-third. It has already produced some excellent crops of beet and maize.

NEWMARKET COTTAGE INFIRMARY.—A meeting, at which Lord John Manners has consented to take the chair, is about to be held for the purpose of promoting the establishment of a cottage infirmary at Newmarket. The movement has been set on foot by Dr. Gray, and is supported by the Duke of Rutland, Lord George Manners, M.P., and many other noblemen and gentlemen, as also by the tradespeople of the town and the trainers.

CHOLERA ON BOARD A PENINSULAR AND ORIENTAL STEAMER.—During the passage of the steamer *Candia* from Calcutta to Madras she experienced a blast of peculiarly hot wind blowing across the Sunderbunds, and the Lascars at once declared that cholera would break out on board. And before many hours their prediction was verified, the third officer, Mr. Tillard, falling a victim within two hours of seizure, and the gunner, an English quarter-master, an English seaman, an English steward, and a native barber, almost as rapidly. A soon, however, as the vessel had got well out to sea, the other persons who had been attacked rapidly mended, and were nearly convalescent on their arrival off Madras.—*Homeward Mail.*

CULTIVATION OF THE JALAP PLANT IN INDIA.—The first specimens of jalap produced in India was exhibited at the recent meeting of the Pharmaceutical Conference, by Mr. Hanbury, the president. It was grown at Ootacamund, where live roots carried from England by Mr. Broughton were planted in January 1867. These roots grew with surprising luxuriance, each producing a fine cluster of tubers; some of them were dug up in December of the same year, when the largest tuber was found to weigh over a pound and a half. This jalap of India differs very notably in appearance from that we get from Mexico, owing chiefly to a different mode of drying; in fact, to facilitate this operation, the tubers have been sliced. It compares, however, favourably with that of Mexico as regards percentage of resin; and, from a few trials made in India, we may judge that its medicinal powers are fully maintained.

A NEW MEDICINE.—The *Moniteur* gives an account of a tree called haofash, which grows on the mountains of Baria, in French Cochin-china. MM. Condamine and Blanchard, two French travellers, have at length succeeded, after much fruitless research, in finding this tree, having conquered the conscientious scruples of a worthy bonze, who seems to have been perfectly alive to the virtues of the French Napoleon. The Annamites, who gain their livelihood by selling the bark of the haofash to professional men, wait till the tree has attained its third year before stripping it of its bark—its usual height at that age being about twenty-four feet, with a circumference of a foot and a half, or thereabouts. The operation is performed in June, when the tree has neither blossoms nor fruit; it is hewn down, and then denuded of its bark methodically, in slices about two feet long and three or four inches broad. These strips are made up into bundles weighing from thirty to forty pounds. The bark of the haofash is outwardly of an ash-grey colour, and inwardly brown. It has a strong aromatic smell, and a slightly bitter taste. When chewed, it reddens the saliva; it is a powerful styptic, and administered by the physicians of the country in cases of colic, diarrhœa, and dysentery. The dose for a decoction is generally from six to ten *grammes* in 100 *grammes* of water, boiled down to one-fifth; but sometimes they merely put a bit of the bark into hot water, occasionally rubbing the former against the rough sides of the earthen pot used for the purpose, and then make the patient drink the liquid, which is then sufficiently strong to cure a simple colic.

RAILWAY WAGONS FOR MEAT TRANSPORT.—The adoption of refrigerator cars for bringing dressed beef, pork, mutton, and poultry from the Western States to the seaboard cities, promises most important results. The cattle are slaughtered and dressed when in their best condition, and the meat there packed directly into the car, and thus transported to the points of consumption. These cars are of the eight-wheeled freight pattern, built of two thicknesses of three-quarter inch pine plank, three inches apart. In the intervening space, three-inch slabs of cork are inserted, cork being considered the best non-conductor of heat. On the top of the car is a flutter wheel of zinc, worked horizontally by the current of air created during the motion of the train. On the same spindle with this wheel is a revolving fan, which throws the air through flues, the entire length of the car to the ice-chambers at each end. It is here cooled and condensed, and falls through other flues to the floor, passing under the hanging meat, and enveloping it as it rises to the ceiling. The temperature maintained is 42 degrees. These cars can carry from 20,000 lbs. to 25,000 lbs. each, and the meats invariably come forward in excellent condition. The benefits of this system in brief are: a saving in weight to the owners of the cattle, the abolishment of slaughter-houses in or near the cities, the retention of the refuse matter to be returned to the soil through the compost heaps where the cattle were raised—a most important matter—and the improved character of the meat brought to market. If there were no question but that of the greater humanity of this method of treatment of cattle, it ought to be decisive in favour of this system, but there are other questions all in favour of it. For sanitary reasons the system should be adopted; first, that it enables cities to get rid of slaughter-houses, those great pests of every inhabited neighbourhood. Second, that the meat is preserved in a more healthy and fit state for human food. The return of the refuse matter of slaughtered cattle to the soil, thus enriching it with those elements which enter into the growing of cattle, is a matter which the more intelligent agriculturists and cattle breeders will properly estimate, and one to which we hope they will give due emphasis in the discussion of this question in the agricultural journals.—*American Railway Times*, and *Journal of the Society of Arts.*

BRITISH RHUBARB.—At the recent anniversary meeting in Norwich of the British Pharmaceutical Conference, the president, Mr. D. Hanbury, observed in his address that, although the directions of the *Pharmacopœia* preclude the employment in an English pharmacy, of any other rhubarb than that of China (and most of us are practically unacquainted with any other), yet no such limitation extends to other countries; and that British rhubarb is appreciated *somewhere* is proved by the fact alleged by Mr. Usher, that the demand is greater than the supply. The disappearance from commerce of the old-fashioned Russian rhubarb, a drug that was of uniform excellence, has been followed by a remarkable alteration in the rhubarb shipped from China. For the last two or three years this rhubarb has been singularly bad in quality, whole chests affording only a few pounds of the drug in a sound condition. As the price has also very much advanced, it is not surprising that British rhubarb, which is at least well prepared and of good appearance, should find numerous purchasers. The increased facilities for traversing the interior provinces of China may soon, I hope, afford an opportunity of reaching some of the districts in which rhubarb is produced, and of bringing thence living plants of this most valuable drug.

THE ABSORPTION OF GASES BY CHARCOAL.—At the recent meeting of the British Association for the Advancement of Science, Dr. Angus Smith said, that he had extended his inquiries into the laws of absorption of gases, as shown by charcoal. He had some years ago said that he believed the actions were on the border between chemistry and physics, or that physical phenomena were an extension of the chemical. Last year, in a short note, he said that the gases which he tried were absorbed in whole volumes, or volumes which were multiples of hydrogen. He had now tried other gases, with the following results:—Hydrogen, 1; oxygen, 7.99; carbonic oxide, 6.03; carbonic acid, 22.05; marsh gas, 10.01; nitrous oxide, 12.90; sulphurous acid, 36.95; common air, 40.063. Nitrogen was found to be 4.27; probably this was a little too low, as there was always some nitrogen left in the heated charcoal. These numbers were got by dividing the number of volumes absorbed by each gas by the volumes of hydrogen absorbed. The numbers, in some cases differ considerably; it was supposed that the reason lay in the constitution of the charcoal, but some of it may lie in the mode of working. He considered that the ultimate particles of gas rested as strata or layers in the charcoal; the nearer particles were, therefore, less forcibly held than the more distant. They were also more difficult to remove. If this physical action had an analogy with chemical action, it would also partially throw light upon it, and it seemed to point to compounds containing parts held together more or less loosely than other parts. The numbers, however, require analysis and careful thought. Two of them seemed very remarkable—namely, oxygen and carbonic acid, as the volumes were exactly those of the weights of oxygen in water and of an atom of carbonic acid. Eight volumes of oxygen were 128 times heavier than one volume of hydrogen; the gases, therefore, did not seem to be taken up according to their atomic weights. By attention to this, he hoped that some light would be thrown on the atomic physical constitution of bodies. In a practical point of view, he hoped to gain by the inquiry some knowledge of the phenomena of spontaneous combustion to which several substances are subjected.—*Chemical News.*

BOOKS, ETC., RECEIVED.

Hospital Relief, and the Cost of its Administration in the Metropolis. By J. G. Wilkinson, Sec. St. Mary's Hospital. London: 1868.

Contributions to the History of Development in Animals. 1. On Fœtal Circulation. By William Macdonald, M.D., F.R.S.E. Edinburgh and London: 1868.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.—By an oversight, it was stated in the Educational Number of the JOURNAL (page 277), that at this College "there is an examination in Medicine or in Pathological Anatomy." All candidates for the diploma of the College are examined in medicine; and also on morbid specimens as part of their surgical examination.

AN IMPOSTOR.

SIR,—A person, giving the name of Mrs. Stewart, has called upon me in my capacity of Honorary Secretary to the Medical Benevolent Fund, seeking assistance for her husband, said to be a medical man. I recognised her as a clever swindler, who took me and others in some years ago. She gets up a story remarkably well; and as she has prepared one for the medical profession, she will probably try to use it. She does not ask for money in the first instance. She almost always brings the name of a friend or acquaintance of the person to whom she applies; and a name incautiously mentioned will send her straight to the individual with yours.

By inserting this note, you may put medical men on their guard.

I am, etc., W. H. BROADBENT,
Honorary Secretary of the Medical Benevolent Fund.

P.S.—Unknown persons seeking assistance as connected with the profession, may be referred to me, *on payment of a fine to the Fund.*

44, Seymour Street, September 1868.

X.—The Member (Stony Stratford) is not to suspect itch where there is no eruption; scabies always produces at the least a fine papule on the part affected.

For safety's sake, the ticking of the bed on which an itch patient has slept, should always be boiled or fumigated: boiling is best.

The person might readily contract scabies again in the way described.

Such apparel, etc., as cannot be boiled, should be either baked, or hung up in an empty room, which is to be filled with sulphurous acid by burning some sulphur in open vessels in it.

SECONDARY CANCEROUS DEPOSIT AFTER AMPUTATION.

SIR,—In the interesting case of amputation at the hip-joint, related in your issue of September 5th, by Dr. Eben Watson, that gentleman comes to a conclusion with regard to the secondary development of the disease in the lungs, which appears to me entirely erroneous. It is the more desirable that this error—if it be one—should be pointed out, inasmuch as it has a practical bearing on the treatment.

Dr. Watson believes that the extensive cancerous formation in the lungs (including the bone-spicula) was produced as the result of an unhealthy inflammatory exudation during the acute attack which carried off his patient in the short space of three days. I do not think this to have been possible. It appears to me that the fatal result of the case was owing to the special operation chosen by Dr. Watson. The cancellar cavity of the bone was, according to Dr. Watson, "full of the morbid matter". What more likely than that some of the cancer-cells may have escaped on to the raw surface of the stump, entered bodily into some of the opened vessels, and, being stopped in the small capillaries of the lungs, may have there multiplied and produced the secondary lung-disease. This, growing by degrees, the resulting dyspnœa might easily escape observation. The time between the operation and death necessary to produce the amount of disease, corresponds very well with the rate of growth of the primary thigh-tumour. The urgent symptoms of the last three days of life were doubtless owing to the exposure to cold, and an ordinary pneumonia, superadded to the previous disease of the lungs, would doubtless cause a speedy death.

If I am right in my conjectures, this case would teach us then that in similar instances "removal of the entire bone affected by the disease is the only operation which holds out any chance of ultimate recovery", and that any such exploratory operation as that performed in this instance, and for which the operator and some of those assisting him appear to think favourably of, should by all means be avoided.

Chertsey, September 1868. I am, etc., T. A. CHALDECOTT, M.D.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

THE USE OF MERCURY.

SIR,—"Veritas semper eadem est, heri, hodie et sempiterné." I am an old practitioner, in my eighty-ninth year; and though my bodily powers have lost much of their usual vigour, yet, through its chinks, the work of time, the mind has been rather improved. I have given up night-work; but, as long as my mental faculties are unimpaired, whatever good I can afford my patients I should think it sinful to withhold.

Now, the cause of this effusion is on this wise. The thirty-sixth annual meeting of the British Medical Association was held at Oxford; on that of the 7th August, a subject of the most important nature took place, and, but for the observations of the admirable President, what a catastrophe might have happened! The well nigh proscription of mercury. What a common complaint is congested liver, and how is it congested? Why, by more blood passing through the vena portæ than can return to the right auricle of the heart; it then lodges in the liver, and the longer this is taking place, the larger the viscus becomes; so that, what with the engorged blood and the immense quantity of vitiated bile, it often attains to three or four times, or more, its usual size. Now, how is this melancholy condition to be remedied? without which a dreadful catalogue of diseases must, sooner or later, bring to the miserable sufferer his only refuge from the dreadful storm. And is this a common occurrence? Yes, it is. And is it curable? Yes, it is. And do many die thereof? Yes, they do; and many most valuable lives, through the senseless cry about mercury, are hurried out of the world, when that blessed drug, rightly administered, as it has been centuries ago, would have restored to perfect health and longevity in every case where the disorder was only functional; for, when it is organic, mercury is inadmissible, and hastens death.

In a former letter of mine, eight or ten years ago, in our JOURNAL, I more fully expatiated hereon; shewing how the secretion of bile was only fit for perfect digestion, when a proper quantity of blood was sent to the liver, on which health and comfort depended entirely; and how, on the contrary, the biliary secretion made from the stagnant blood produced those numerous discomforts arising therefrom. In the same may be found the use and danger of mercury. About twenty years ago, I brought a child into the world, who, at her birth, had a very enlarged liver, to whom I gave blue pill night and morning for three weeks, which restored the liver to its proper size, and she is now a healthy woman. I mention this to show its value in proper hands.

The two most valuable preparations of mercury are calomel and blue pill; the former as a cholagogue, the latter as an alterative. How efficacious and safe is a large dose of the former in the following condition, which is of frequent occurrence. A person, in the midst of apparent health, with an enlarged liver, is suddenly seized with the most horrid pain in the stomach, and vomiting of dark green bile, incessantly for many days, till perfect exhaustion occurs. Now, to what is this owing? It is astonishing what a quantity of this pent-up bile the liver will harbour under the semblance of perfect health, till, in a moment, the *vis medicatrix naturæ* is powerfully exerted on the liver for its expulsion, when the duodenum is deluged therewith, its peristaltic action is inverted, and its whole contents are emptied into the stomach; so that many are lost. Now how is this to be obviated? Here is proved the inestimable value of calomel as a cholagogue. The administration of ten grains of calomel generally acts specifically by restoring the healthy action of the duodenum, so that all this poisonous matter shall be carried downwards, and the poor stomach liberated from its enemy. Then the work of freeing the liver wholly from its noxious contents is carried on by the alterative nature of the blue pill. And can this always be obtained? Yes, when the liver be only functionally affected. But how shall we know whether it be organically affected? When it is so, the blood becomes watery, and almost void of crassamentum, so as to ooze out or flow from different parts of the body, particularly if mercury be given; so that, as I have before observed, it is inadmissible here, as it is in all cases of impoverished blood.

Mercury has been very valuable in my hands, in new-born children of syphilitic parents, administered as in the case above recited. Time would fail me to recount its blessings; and, much as I value it, I must say that, keeping in view the state of the blood, I must exhort the present generation of my brethren to desist from its proscription. What an infatuation it was to suppose that the trial of testing its action on the dog would suffice. How I pity the *medicus* who ignores mercury but much more do I pity his patient.

The President, wisely interposed, and rescued the most invaluable article of the materia medica, to his eternal honour, from the fate to which its blind enemies would have consigned it. Apologising for such a crude and hasty sketch.

I am, etc., THOMAS POPE.

Cleobury Mortimer, August 1868.

*** We honour our correspondent for his zeal in coming forward, at an age when most men would have long retired from controversy, to defend a remedy which tradition and experience have taught him to value highly. He fears that the adoption of the views conveyed in Dr. Bennett's report would lead to the disuse of mercury. But, we think, there are two separate points involved in the discussion, which Mr. Pope, as well as others, confound together. First, mercury is said to do good in cases of congested liver, when judiciously administered. That it does so—that, as Dr. Acland said, a person with disordered liver will feel quite comfortable a few hours after taking a dose of the pill, is not, as far as we see, what is denied in the Report. But, secondly, tradition says that mercury is beneficial in these cases by increasing the flow of bile. This is denied. We are, then, in this position: that, while we have in mercury an useful remedy, the ordinary explanation of its *modus operandi* is in all probability wrong, and we have yet to discover how it acts. This is a matter for further investigation, and not to be settled by mere expression of opinion.

TURNING IN HEAD AND HAND PRESENTATIONS.

SIR,—I observe in a recent number of the JOURNAL a record of a case of head and hand presentation, reported by Mr. Clendinnen, which was treated by turning. Perfectly appreciating the necessity for condensing reported cases, I yet think that you would willingly afford space to Mr. Clendinnen, that he might give us the circumstances which rendered turning advisable in the case he describes; since I am sure that they would be infinitely more interesting than the simple report of a not very uncommon presentation, which is usually either left to nature, or, if possible, treated by returning the presenting limb, and thus converting the case into one of vertex presentation. I am, etc., J. ASHBURTON THOMPSON,
Resident Obstetric Assistant to Middlesex Hospital.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

DR. JOYCE of Rolvenden calls our attention to the fact, that a letter of his on "Ether-Spray in Sun-stroke", which appeared in this JOURNAL about three weeks ago, has been copied by the *Druggist and Drysalter*, with the words "To the Editor of the *Druggist and Drysalter*" inserted after the heading. Dr. Joyce assures us that he never addressed any communication to that paper—which is, we believe, a merely commercial one. A letter of Dr. W. Griffith, on "Sulphuric Acid in Diarrhœa", which appeared in this JOURNAL at the same time with Dr. Joyce's, has also been inserted in the paper above mentioned, with a similar addition to the heading. The conduct of the *Druggist and Drysalter*, in Dr. Joyce's case at least, is most unfair, and contrary to the morals of journalism.

THE THERMOMETER IN DISEASE.—Will some one inform X. what is the best and most useful work on the Thermometer in Disease, with the publisher's name and price? and whether Benedikt or Meyer is the best authority on Electro-therapeutics?

NAVAL MEDICAL SERVICE.

SIR,—In our Educational Number, and in the Students' Number of the *Lancet*, there is a column on the subject of the Naval Medical Service. The information given is substantially the same in both, and shows that some change has taken place in the Regulations; nevertheless there is an amount of ambiguity in both paragraphs which I am sure many young medical men, in common with myself, would be glad to see removed. I think this can best be done by your kindly appending an answer to each of the following questions.

a. Must candidates possess a medical as well as a surgical qualification? Hitherto the latter only was necessary.

b. Diplomas, proof of age, and certificates of hospital attendance (eighteen months), dissections (twelve months), and operations, being produced, is that sufficient; or must certificates of extra lectures on Practice of Medicine, Anatomy, Botany, etc., be handed in as hitherto?

The latter question is most important, and refers to a regulation which has done more to keep young men from entering the navy than anything else. The Latin examination was always a ridiculous farce to any one of ordinary education, and seldom deterred any candidate from presenting himself. The real grievance was this. Every parent willingly paid the sums demanded for hospital, lectures, books, etc., and few grudge the expense of the two diplomas, or even the registration fee. Suppose the young man thus expensively qualified wished to become a navy medical officer, it is, or was, necessary to procure certificates of extra lectures on Anatomy, Medicine, Botany, etc., costing something like £20 or £25, and valueless as a test of education, as any "past man" can procure them from his school on simply paying down the money. This few parents are simple enough to do; and, consequently, the aspirant goes into the army, or devotes himself to general practice, and the newspapers announce a dearth of medical candidates for the navy. If a change have taken place, and this stupid regulation be really abolished, I have no doubt numbers of young men will come forward, as I know at least ten who would have offered themselves last year but for the absurd piece of red-tape I have mentioned. I am, etc.,

ONE WHO WOULD BE R.N.'D IN TIME.

A MEMBER.—Your son can enter on his hospital studies in the ensuing session, having passed the examination in arts, etc., at the College of Surgeons.

A DISTRESSING CASE.

AN appeal has lately been made, in a letter to the *Times* from Mr. A. K. Mackinnon, of Broadford, Isle of Skye, on behalf of the widow of the late Dr. M'Alister, of Strathaird—a gentleman known to travellers in that island for his unlimited and gratuitous hospitality to strangers.

"At the beginning of this year," says Mr. Mackinnon, "Dr. M'Alister died and left his widow totally destitute, literally without the means to provide for herself a single meal. Without some assistance, it is impossible but that for the remainder of her life she can hope for any other means of maintaining her existence than that to which the most destitute and lowest born in the land can look. Up to the present time, the bare means of living have been afforded to her by those who have known her here; and arrangements have been made by means of which she may be enabled to live in comparative comfort, if once a small house can be provided and furnished for her. A temporary home has been found for her at Balmacara, in Lochalsh; and the facts, which I have stated as simply as possible, can be corroborated by any persons now residing there."

We have made inquiries concerning this case; and are informed, by a most reliable authority in the Isle of Skye, that the statements contained in the papers are strictly correct; and that the case is one of great distress. We trust, therefore, that some among our associates will contribute towards the fund which it is proposed to raise for the benefit of Mrs. M'Alister. Subscriptions will be received by Mr. A. K. Mackinnon, Corry, Broadford, Isle of Skye, or by the Bank of Scotland at Broadford; or they will be received at the office of this JOURNAL and forwarded to the proper quarter.

STUDENT.—A "Matriculated Student" is one who, on entering at a medical school, becomes entitled to certain special privileges—generally by the payment of a fee of about two guineas. Our correspondent should state the particulars of his case to the authorities of the Board before which he intends to present himself; and they will judge whether an exception can be made in his behalf. He will see, however, that the College of Surgeons does not recognise any professional studies prior to the passing of the preliminary examination in general education. The Branch Councils are constituted of the members of the General Medical Council residing in each of the divisions of the United Kingdom.

REMUNERATION OF CLUB SURGEONS.

SIR,—I had occasion to complain to the Secretary of the "People's Universal Life Assurance and Sick Fund Friendly Society", held at Wolverhampton, of the deduction of 5 per cent. commission, etc., on my salary for attending the members of this district, which I do at 4s. per member; and mentioned to him that now no respectable medical man would take club members under 5s. each. His answer is: "You are under a mistake about surgeons not taking societies under 5s. per member. Many of ours we pay but 2s.; scarcely any more than 3s.; and you are almost the only one to whom we pay 4s. per member."

When we find members of the profession willing to give "first class attendance and medicines" at so low a figure, I am afraid the movement for the minimum of 5s. per member is next to hopeless in the Midland Counties. I am, etc.,

Feckenham, near Redditch, September 1868. JOHN W. LEACROFT.

INDIA-RUBBER SPONGE.—We have received from Messrs. Cow, Hill, and Co., of Cheapside, an article bearing the above name. It consists of a piece of sponge, evenly cut, and fastened to a piece of India-rubber in the manner of a brush; and appears to be a very handy article for use in bathing and washing.

DISEASES FROM IRRITATING DUST.

SIR,—I am much gratified to observe, in the JOURNAL for August 29th, that Mr. Liddle has, at the instance of Dr. Sequeira, drawn public attention to the large amount of troublesome lung-disease entailed upon those who have to labour much among dry and dusty goods.

An experience of five years among the out-patients at the Victoria Park Hospital for Diseases of the Chest, has given me ample opportunity to observe how much serious and intractable lung-disorder is caused by the inhalation of irritating dust among labourers in warehouses.

Withdrawal for a time from the exciting cause of the disease, and proper treatment, are means which usually either much relieve or quite cure these patients, and they tell the doctor that they shall do very well till they get back to their work; then, sure enough, cough, spitting, and dyspnœa, return worse than before, and treatment becomes very disheartening and unsatisfactory.

I send these few remarks, in hopes of promoting the very desirable objects aimed at by Mr. Liddle in the suggestions he has put forward in his report.

I am, etc., JOHN C. THOROWGOOD, M.D.Lond.,
London, Sept. 1868. Assistant-Physician to the Victoria Park Hospital.

DR. DAVIS.—The Educational Number of this JOURNAL will give you the information. Three winter and two summer sessions are all that will be required; the remainder of the four years is made up by attendance at your local hospital, and will be recognised by the authorities.

MEDICAL COURTS OF APPEAL.

SIR,—I was very pleased to see the letter of "Pacificator" in the JOURNAL of September 5th, and trust the members of the profession will take the matter into their serious consideration, feeling certain that great good will result from the formation of a Court of Appeal, before which any differences or breaches of medical etiquette can be brought and settled.

Out of so vast a body as the profession represents, black sheep will from time to time be found; but, were such a tribunal formed, the fact of its existence would, I think, have a most beneficial effect in deterring some from continuing their unprofessional conduct, for fear of exposure.

I shall be very happy to contribute my mite towards any expenses which may be incurred in carrying out so laudable an object. I am, etc.,

Bedford, Sept. 7th, 1868. WM. THURNALL.

TREATMENT OF EPISTAXIS BY SIMPLE COMPRESSION.

SIR,—In the BRITISH MEDICAL JOURNAL of July 18th, Dr. R. P. B. Taaffe, after giving the details of a case which he had so treated, states: "in no medical or surgical work, as far as I know, is mention made of this method."

In reading his short article on the subject, several cases came to my recollection where I had employed the same practice successfully; and, on turning to the Sydenham Society's *Year-Book for* 1861, I found at page 252 the source whence I derived my first information on the subject; viz., Hiart de Mugron, *Journal de Médecine de Bordeaux*. I feel compelled to add that, although the method recommended is generally successful, it is not invariably so: other measures, including astringent applications, having on one or two occasions to be resorted to before the bleeding was arrested. I am, etc.,

Leamington, August 1868. R. W. CRIGHTON, M.D.Edin.

MEDICAL SERVICE ON THE GOLD COAST.

SIR,—Being desirous of entering the Gold Coast Army Medical Service, I would feel obliged if you, or any of your readers, could inform me what steps it is necessary to take. I believe candidates for the Queen's Service who do not attain the requisite standard, are offered these appointments; but this is obviously unpleasant to African doctors, and must damage their professional *status*. Is there no volunteering directly for the Gambia? I am, etc., MALARIA.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Chester Chronicle, September 4th; The Cockermouth and Keswick Chronicle, August 27th; The Wiltshire County Mirror, Sept. 16th; Trewman's Flying Post, Sept. 16th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Corley, Dublin; Dr. G. M. Humphry, Cambridge; Mr. P. Howe, Manchester; Mr. W. Graham, Hull; Rusticus; Mr. Dalby, Chester; Mr. H. Greenway, Edinburgh; Mr. F. Fitch, Kidderminster; Messrs. Cadbury Bros., Birmingham; McClelland and Co., Glasgow; Mr. H. Rogers, East Grinstead; The Secretary of the Leeds School of Medicine; Mr. A. Stedman, Great Bookham; Dr. W. J. Williams, Manchester; Practitioner; Dr. W. Graham, Goxhill; Dr. A. D. Davidson, Aberdeen; Dr. Gibbon, London; Dr. Falconer, Bath; Dr. Reilly, Castle Eden; Dr. S. Martyn, Clifton, Bristol; Mr. A. Wood, Banff; Palmer and Howe, Manchester; Dr. E. Woakes, Luton; Dr. Fyfe, London; Dr. C. Parsons, Dover; Dr. T. Joyce, Rolvenden; Mr. B. Evans, Farningham; Mr. S. Stone, Mauritius; Mr. H. Johnson, Shrewsbury; Mr. J. Holm, London; Mr. J. Forsyth, London; Mr. C. Bailey, Cliffe; Mrs. Baines; Dr. John Murray.

LETTERS, ETC. (with enclosures) from:—

Dr. Dobell, London; Mr. C. B. Steele, Norfolk; Dr. E. Haughton, Great Malvern; Dr. W. Addison, Brighton; Dr. Thorowgood, London; Mr. F. Le Gros Clark, London; Mr. T. Pope, Cleobury Mortimer; Mr. Harry Leach, London; The Secretary of the Royal College of Surgeons, Edinburgh; P. B. Cow, Hill, and Co., London; Dr. J. Waring-Curran; M.D.; Dr. J. R. Wolfe, Aberdeen; Mr. C. J. Fox, London; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; The Registrar-General of England; The Registrar-General of Ireland; Dr. John Murray, London; Dr. Treutler, Kew; Mr. M. A. Bazille Corbin, Guernsey; Mr. Ikin, Leeds; Dr. Ringland, Dublin; Student; Dr. T. T. Peirson, Scarborough; Dr. Lankester, London; Dr. G. B. Mead, Newmarket.

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LECTURES
ON THE
PRINCIPLES OF SURGICAL DIAGNOSIS:
ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

By F. LE GROS CLARK, F.R.C.S.,
urgeon St Thomas's Hospital, and Examiner in Surgery in the University of London.

LECTURE V.

Diagnosis of Hæmorrhage within the Skull: its Different Positions.—Reactionary Hæmorrhage.—Consequences of Hæmorrhage.—Diagnostic Indications of Concussion and Compression Compared.—Temperature in these Conditions.—Contused, Punctured, and Incised Wounds: Laceration of Brain-texture: their Relation to External Injury.—Effects of these Lesions.—Abscess of Brain.—Accidental Complications in Injuries of Brain.—Pyæmia.—Diagnosis of Special Lesions of Encephalon.

MR. PRESIDENT AND GENTLEMEN,—There are certain effects of injury to the head, apart from lesions of the encephalic centre, to the diagnosis of which I will now briefly advert, before discussing the symptoms of direct injury to the brain itself.

Although I have verified, from repeated observation, the impunity with which fissure of the skull may be sustained, my own experience has likewise confirmed the observation of others, that blows, unattended by fracture of the skull, may be succeeded by very grave symptoms, and even a fatal result. Some of these sequences are remote, others are immediately associated with the accident as their exciting cause. Extravasation of blood is, probably, less infrequent than is generally supposed; of course, I mean in very limited quantity, and diffused over the surface of the brain. Certainly this organ has the property of accommodating itself to such pressure as would be hereby exercised upon it, where vascular lesion alone occurs; and the *post mortem* appearances which present themselves in fatal cases that have been carefully watched during life, would seem to support the opinion that such extravasation of blood may be absorbed, whilst its presence probably accounts for the protracted symptoms which precede recovery.

Some hæmorrhage must always accompany fracture involving both tables of the skull, and those which extend into the base. But we know that this consequence of injury may also occur without any fracture.

Viewed by itself, hæmorrhage between the dura mater and skull is manifested by unequivocal symptoms, which also indicate, in many cases, its position. The circumscribed nature of this extravasation, which is due to the close adherence of the dura mater to the skull, is at once suggestive of the nature of the lesion and constitutes its dangerous feature. In some instances, no doubt, a short interval may elapse between the receipt of the injury and the occurrence of symptoms indicating pressure. Where such is the case, the surgeon has a valuable aid in forming his diagnosis. He may reasonably conclude that, as the collapse of shock is succeeded by renewed vascular activity, blood has been poured out, so as to press upon the brain; and if fracture co-exist, even without depression, an effort should be made, with the trephine, to save his patient. But, if there be no fracture, he cannot be certain where the blood is to be found. Profound coma is diagnostic of this form of extravasation, and the presence of such extravasation is probable when this condition exists and where no fracture can be detected; or hemiplegia is indicative of the side affected. Certainly the same quantity of blood may be diffused over the surface of the brain, at its base, or discharged into the ventricles, without producing the same symptoms of simple and deep coma. The same condition may coexist with fracture; and, even under these circumstances, hemiplegia of the same side of the body will point to the opposite hemisphere as the seat of pressure. Unfortunately these diagnostic manifestations are not generally such as can be acted on; for, although there can be no doubt that the seat of extravasation, when distant, is sometimes diagonally opposite to the spot where a blow had been inflicted, this is by no means invariably the case: blood may be poured out over any part of the opposite hemisphere, in the course of the meningeal artery or its primary branches. Where the extravasation in the situation referred to is abundant, profound coma ushers in speedy death. The following is a typical example.

A middle-aged man was admitted under my care, immediately after he had fallen from a height of not more than ten feet on to his head. He was quite insensible. On examination, there was found a scalp-wound on the *right* side of the head, towards the vertex; it was about an inch long, and the periosteum was removed at one point, but no fracture could be detected. The breathing was stertorous, with groaning. The pupils quite inactive, the left being much contracted, the right somewhat dilated. He died in forty-eight hours, without rallying in any respect. There was no fracture; but, on removing the skull-cap there was found to be a large mass of dark-coloured coagulum, weighing upwards of four ounces, beneath the left parietal bone, outside the dura mater, to which it was rather firmly adherent, and causing a marked lenticular depression on the surface of the middle lobe of the *left* hemisphere, (the contusion was on the right side). There was no hæmorrhage into the arachnoid cavity, but a small amount beneath the arachnoid, over the left hemisphere of the cerebellum; and at the base of the anterior extremity of the right cerebral hemisphere, the grey substance of the brain was bruised and ecchymosed. The white substance of the left cerebral hemisphere, beneath the depression caused by the clot, was studded with small blood-points looking like minute extravasations. (Illustrated by preparation.) I may remark, respecting this case, that it further illustrates conditions of which I was speaking in my last Lecture, in relation to the effects of vibration communicated through the brain-substance. The extravasation was not limited to the membranes and surface of the brain, but extended through its substance, involving the cerebellum and even the under surface of the cerebrum. But I shall presently return to this subject.

I have not on record any case in which extravasation of blood between the dura mater and *vault* of the skull was not primary, *i.e.*, indicated by the immediate or early presence of symptoms of pressure on the brain. No doubt these symptoms are, as I just now remarked, in some cases, less positive at first, and become confirmed by further effusion, as the heart recovers from the first shock of the injury; but the cases are, I think, exceptional and rare where the symptoms of compression are *entirely* absent in the early stage of shock, and supervene only when reaction takes place. I must, however, qualify the preceding remarks on these effusions, by observing that extravasation, having the same relations in the *base* of the skull, may exist without entailing necessarily the same consequences. I have met with several such instances, which admitted, *post mortem*, of no other interpretation than that the blood was deposited between the fibrous membrane and bone some time prior to death, and yet the symptoms were not such as to indicate its presence during life. Probably the pressure in this direction is more readily diffused, or the extravasation takes place more slowly if the lesion be not arterial. Usually in these cases of extravasation, external to the dura mater, this membrane is not ruptured or torn; but, when there is fracture, and that fracture is accompanied by displacement, the dura mater may exhibit the lacerated appearance in proximity to the clot, which is presented by the accompanying preparation of fracture, with extravasation in the base of the skull. (Preparation shown.)

Extravasation of blood into the cavity of the arachnoid is commonly seen in fracture of the base of the skull; but, in my experience, it is less frequent than subarachnoid effusion, on the *upper* surface of the hemispheres, which sometimes extends into the interstices of the convolutions. It is also seen in some instances diagonally opposite to the seat of injury. In these situations probably reactionary hæmorrhage often occurs, as there is less resistance to be overcome by the current of the blood. The following case exemplifies the condition which I regard as diagnostic of this form of limited reactionary hæmorrhage.

A labourer fell from a scaffold two stories high, and was brought to the hospital immediately. He was stupid, and answered questions confusedly, and complained of pain over the right eye-brow, which was contused and swollen, and in the back; he was pale and suffering from shock. Two hours afterwards he became rapidly comatose. I ordered cold lotion to the shaved head, a brisk purge, and leeches to the spine. On the following day he was sensible; his pulse was quiet, and all symptoms were improved. But on the third day the pulse had risen to 120, his breathing was laboured, and coma appeared again imminent. The scalp was freely leeched, and small doses of grey powder and ipecacuanha were given. From this time he rallied, and subsequently quite recovered.

The succeeding case is a fatal one of the same class; I quote it as characteristic, though, unfortunately, I was unable to verify the diagnosis by *post mortem* examination. A livery-stable keeper was thrown from his gig, and fell on the right side of his head. When brought to the Hospital he was in a state of collapse, with contracted pupils, slow and feeble pulse, and cold skin. The only injury detected was a trifling contusion on the right side of the head; he was in a state of semi-consciousness. The usual means were employed to restore warmth. On the following morning the pulse had risen in number and volume, the skin was warm, and he had vomited. He answered questions rationally, and complained of most pain at the back of the neck. A purgative was ordered, and acted in the course of the day. On the second day it was more difficult to rouse him; the pupils were dilated, especially that on the side opposite to the injury, and there was some hemiplegia on that side also. The nape of the neck was blistered and a dose of calomel was ordered. Profound stupor afterwards ensued, and he died on the morning of the third day. As a *post mortem* examination was not permitted, it is impossible to say that the base was not fractured; and the suffering he complained of at the back of the neck suggested the possibility of this complication; but the symptoms under which he sank indicate extravasation of blood and consequent pressure. The memorandum I affixed to this case is to that effect; and that probably such extravasation was at the base of the skull, associated with fracture. I have no record of any ecchymoses being observed at the nape of the neck in this instance.

That extravasation of blood may exist in this diffused form without producing symptoms of a nature to excite alarm, I think there can be little doubt; but of secondary consequences under these circumstances we have not infrequent instances. The following case is interesting in many respects, in a diagnostic point of view, both negatively and positively; exemplifying the above remarks and other points to which I shall presently refer.

A cab-driver, of middle age, was thrown from his box, and taken up insensible. When admitted into the Hospital, it was found that he had a severe scalp-wound over the left temple, and a bruised face. He gradually rallied from his state of unconsciousness, and on the following day was quite sensible, with moderate reaction, the pulse being 80. He continued free from suffering and any head symptoms; there was denuded bone, and a fetid discharge escaped from the scalp-wound. At the end of a month he was convalescent, the wound in the scalp healing, and the part entirely free from tenderness; he was permitted to walk about, and would soon have been discharged, when, on the twenty-ninth day after the accident, he complained of having caught cold, and remained in bed; he had a flushed face, hot skin and quick pulse, and was inclined to sleep. In the evening of the same day he became insensible. There was no swelling nor inflammation of the scalp around the wound, but it adhered to the edge of the exposed bone, which was dry and white. The trephine was applied on the same night, and a small quantity of pus escaped where the bone was raised; the dura mater was sound. As no amelioration of the symptoms resulted, I punctured the dura mater on the following morning, permitting the escape of a considerable quantity of serum, but no pus. Towards the afternoon he became sensible, but was unable to speak, though he attempted to address his wife on several occasions. At night the circulation again became more excited, and he died comatose about fifty-six hours after the first indication of relapse. The following are the *post mortem* appearances recorded.

There were the remains of a partly healed scalp wound over the left temple, with a circular opening in the skull about an inch in diameter; the dura mater thus exposed was blackening. There was no fracture of the skull, which was very thick, with but little diploe. The dura mater was separated from the skull for a short distance in the neighbourhood of the trephine aperture, and the interval contained some recent clot. The dura mater was healthy over the part corresponding to the aperture; but a short space in front of this, in the frontal region, it was sloughy and presented a small perforation. Beneath the dura mater, and forming a thin layer over the left cerebral hemisphere, was a coagulum partially adherent to the dura mater by its outer surface, but softening within; the corresponding portion of the surface of the brain being also softened and covered with pus. The grey matter of the greater part of the hemisphere was softened and discoloured; and a portion of that of the middle lobe was in a similar condition, and, together with the adjacent portions of the white matter, much congested. The right cerebral hemisphere and the base of the brain appeared healthy.

The purulent deposit is often more circumscribed than in the preceding case, and the local pain more manifest; but the relief obtained by the application of the trephine is, as I formerly observed, rarely permanent in this class of cases.

When hæmorrhage takes place into the vertricles of the brain, it is usually in sufficient quantity to produce coma, but this is not invariable; and the record of such cases in my possession affords no diagnostic characteristic of this special form of extravasation, on which dependence can be placed.

The causes which operate in producing functional disturbance or material injury of the brain-structure are so frequently complicated with those lesions of which I have already spoken, that it is often, I may say generally, impracticable to draw anything approaching to a sharp line of definition between these several conditions. The diagnostic signs of concussion and of compression are, no doubt, distinct in a certain sense; yet compression rarely exists, as a consequence of violence, without concussion, and both are complicated with shock. Further, symptoms of simple concussion may become developed, at a later period, into those which indicate some more serious lesion; and it is in exceptional cases only that we can identify, with any degree of certainty, the efficient and sole cause of compression. The practical lesson to be learned from these facts is, caution in prognosis, and the importance of carefully investigating all the circumstances presented to our notice, in connexion with the causative accident; and of justly estimating their bearing and value in each individual case.

Some of the symptoms which characterise *Concussion* are positive, but the most valuable are relatively negative. In the stunning effects which succeed a blow on the head, we attach more importance to the absence of those consequences which manifest compression or other material injury to the brain, than to those which indicate what we are accustomed to call concussion. Thus, if we can rouse a patient from his state of unconsciousness, even for a few moments, if the breathing is calm and noiseless, if the pulse is feeble, the pupils are contracted, and reflex action can be excited, we conclude that the condition is one of concussion; because the above symptoms, collectively, are not consistent with a state of compression of the brain. But very often the diagnosis is by no means so simple; for, on the other hand, much that we witness in concussion is due to, and possessed in common by, shock; indeed, in some instances, the more alarming symptoms are those of general prostration, and these may survive the functional disturbance of the brain, which is, so to speak, an accidental concomitant of the shock. On the other hand, the disturbing effects of concussion or violent commotion of the brain, may be such as produce irreparable organic change in its structure, without palpable laceration or contusion of any particular part. The intensity of the effects of so-called concussion are marked by the character of the symptoms and by their duration. Yet, these two elements in the diagnosis of such an injury, do not always bear a direct proportion to each other. I have already suggested that the probable explanation of protracted somnolence and other evidence of brain disturbance is, the presence of diffused extravasation of blood over the surface of the hemispheres, which is subsequently gradually absorbed.

The milder forms of concussion present the general indications of shock, with such cerebral derangement only, as is frequently present in the latter state, and is manifested by giddiness, confusion of intellect, a tottering gait, functional disturbance of the senses, and sympathetic irritability of the stomach. In fatal concussion, if the existence of such a condition be admitted, death occurs from shock rather than from direct injury to the brain; unless, indeed, such injury imply organic lesion, which places it out of the pale of so-called concussion. The symptoms in such cases are those of fatal shock, with suspension of the functions of the brain. Whether, in a supposed instance of this kind, the brain would ever be found devoid of material injury I am not prepared to say; I should think not: certainly I have never made nor witnessed a *post-mortem* after speedy death from a blow on the head, where there was not palpable physical lesion of the brain. Yet, I would not deny the possibility that concussion, without organic lesion of the brain, but accompanied by severe general shock, may prove speedily or even suddenly fatal; especially if the heart be feeble, or the presence of some other accidental circumstance favour this result. This question, indeed, presents a very apt exemplification of the erroneous conclusions that may be reached by disuniting different conditions, which, conjointly, are competent to entail consequences that, separately, they would not produce. The diagnosis does not involve the dilemma of selecting concussion, or shock, or extravasation, as the cause of death; it is rather concussion, *plus* shock, and it may be also *plus* other predisposing conditions or concomitant injuries which have been overlooked, or were beyond the reach of observation.

The symptoms of traumatic *Compression*, when well-marked and uncomplicated, are those of apoplexy. The pulse marches slowly, with a full beat; the pupils are fixed and generally dilated; and voluntary movement and sensation are partially or entirely suspended; the intellectual functions are in abeyance. The soft palate partakes of this general paralysis; and the stertor which marks the apoplectic condition is due to the vibration of the velum, when the recumbent position of the patient favours this result; but change of posture may modify or remove this diagnostic sign. The unresisting cheeks flap loosely, and are inflated at each expiration; the distended bladder retains the urine; and the still active intestine overcomes the feeble resistance of the sphincter, and discharges its contents. This condition is met with in cases where a circumscribed portion of bone or any foreign body is driven into the brain, or where a large clot of blood is suddenly extravasated between the dura mater and skull, or into the substance or ventricles of the brain.

The state just described is well-marked and readily distinguishable, by the symptoms presented, from cases of simple and uncomplicated concussion. Moreover, the more serious, indeed almost invariably fatal lesion, is not infrequently accompanied by those indications of shock which always, in a greater or less degree, characterises the milder injury. The temperature is maintained and the pulse is well-filled for a time, often when the stertor and flaccid limbs, and profound insensibility betoken the fatal pressure to which the brain is subjected. The force applied has been expended on the shattered skull and in the lacerated brain; it has been less diffused through the system, or the special injury is too exclusive and certainly mortal, to arouse the sympathy of the organic nerves. Be this as it may, the temporary existence of this state in compression of the brain, as contrasted with the, often protracted, organic prostration in concussion, would seem to point to the conclusion that simple shock has more share in producing the symptoms of the latter condition than is generally assigned to it.

But these typical cases of cerebral injury so often merge in each other or are combined, or they are so often complicated with contusion or laceration of the brain-substance, whereby the symptoms are materially modified, that much disappointment necessarily awaits the inexperienced surgeon who anticipates that he will realise in practice the sharp line of definition in diagnosis which he has learned theoretically.

Just now I remarked that, in compression, the temperature is maintained. I should express myself more correctly if I say that the registered temperature in cases of severe head-injury seems to be no measure of the amount of lesion sustained by the brain, in those instances in which it has been tested in my hospital cases. Thus, in two instances of simple concussion in which the temperature was taken, half an hour and an hour respectively, after the accident, it was found to be 93.5 deg. and 96.2 deg.; yet both these patients recovered without any reaction, beyond the normal standard. In another case of hæmorrhage into the brain, with total unconsciousness, the temperature was noted as being 95.2 deg., half an hour after the injury, and never sank below 94.9 deg. In another remarkable instance, however, of fractured base, with laceration of brain, the temperature fell as low as 87.4 deg. in one and a half hour after the accident. I am not aware of any lower recorded temperature. This patient survived about nine hours, but the temperature scarcely attained 90 deg. just before death.

I may take this opportunity of saying in anticipation, that the records which have been kept at St. Thomas's Hospital, of spinal and of other visceral injuries, seem to point to a different conclusion as regards the diagnostic value of temperature in these lesions. It has been found more uniformly low than in head-injuries, the depression corresponding with the amount of injury received. Moreover, there seems to be, in this class of cases, a more steady fall in temperature after the injury, lasting for a greater length of time, than in head-cases, before reaction occurs. The observations on which these remarks are founded, are too limited to permit me to generalise upon them; I throw them out as suggestive rather of the value of further research in this subject.

The brain is obnoxious to the various forms of mechanical injury to which other more accessible textures are liable. It may be bruised on the surface, or have blood extravasated into its substance or interior; it may be punctured, cut, or lacerated. These lesions are not necessarily fatal, though most of them are usually so; sometimes death ensues without reaction; in other instances it is the indirect consequence of renewed vascular action; or it may be deferred until inflammation is developed. In exceptional cases recovery takes place, even after loss of texture. Punctured and incised wounds are of comparatively rare occurrence in civil practice. When a sharp fragment of bone penetrates the dura mater and enters the brain, we have an exemplification of the former kind of injury. It has never been my fortune to witness a case in which a foreign body has been thrust through the nostril or orbit into the brain; but several such cases are recorded. Incised wounds occur in military practice. There is a specimen in the Museum of St. Thomas's Hospital which shows that the original proprietor of the skull had been the subject of a sabre-wound, which probably penetrated the brain. The edges of the bone are rounded off.

The symptoms consequent on penetrating wounds of the cerebrum, when unaccompanied by pressure, are frequently not developed until inflammation ensues; and therefore the diagnosis is necessarily obscure, or the nature of the lesion is overlooked, until alarm is excited by the indications of brain-disturbance, after an interval which may extend to three or four days or even longer. The same remark applies to the far more common injury of contusion or laceration of the hemispheres. That the brain may be bruised, without any symptoms to show that such is the case, there is no doubt. The history of the cab-driver, details of whose accident I just now narrated, together with his death and the *post mortem* examination more than a month afterwards, exemplifies this fact; and I apprehend we may conclude, from the occurrence of such instances, where we have an opportunity of verifying the actual condition after death, that similar mischief may happen, without the development of any symptoms of importance at any time. But recovery in such instances is probably limited to cases in which the texture of the brain is not seriously damaged. I say seriously, because extravasation into the substance of this organ must, more or less, break up or disintegrate its tissue. Extravasation is sometimes diffused, in the form of a series of small blood-points, over various parts of the brain-structure; or the bruising may be circumscribed. In either case the result must be occasioned by the vibration transmitted through and across the brain. When the contusion is at a distance from the spot on which the blow was received, the mode of its production must be the same; it must be due to shock directly transmitted, and not to vibrations travelling round the skull.

It is difficult to separate, for purposes of diagnosis, these cases of contusion manifested by extravasation, from laceration of the brain. They are, in fact, essentially the same; and, as far as my experience has enabled me to judge, they are characterised by similar symptoms, which vary only in accordance with the degree and locality of the lesion. Whatever may be the correct explanation of the circumstance, it is certain that the middle lobes of the cerebrum are most frequently contused, and the posterior lobes least frequently so; but I am unacquainted with any diagnostic indications by which we may know with certainty where the bruising has occurred. We may suspect that it is near to the seat of injury, or opposite to it; but whether far forward or toward the back of the hemisphere must, so far as we depend on symptoms, be matter of conjecture in most cases.

Of bruising of the brain on the opposite side to the part of the skull which was struck, I select from my notes the following case, which exemplifies the above remark. A lad of 18, having fallen from a height into some water, struck, in his descent, his head and right elbow. There was a compound fracture of the latter, and a scalp-wound, without fracture, on the right side of the occiput. He was stunned at the time, but rallied when he was admitted into the hospital. He had no stertor nor other symptom of compression, but was very restless, dozing at times, and then throwing his arms about, but not involuntarily. He lived for thirty-six hours, remaining conscious to the last. Blood was found extravasated on and in the brain, at a point diagonally opposite to where the blow was received, viz., in the left temporal region.

As regards the relative liability of the different lobes to contusion, of which I just now spoke, I apprehend this may be explained by their several relations. The consequence of transmitted vibration would be greater where it falls upon that part of the brain which is beneath the vertex, and is resting on that portion of the base of the skull which is in nearer proximity to the spine; whereas, on the other hand, the transmitted shock would be broken and diffused by the tentorium on which the posterior lobes rest.

I have said that we possess conclusive evidence, that a certain amount of contusion of the brain may be unattended by other symptoms than those which are usually described as pertaining to concussion; but when the bruising is extensive, or there is actual laceration of texture from violence or extravasation of blood, not only are the symptoms and signs of concussion more intense and prolonged, but we have others superadded, which I have observed to be present usually, though not invariably; and when not present, I believe their absence is generally due to the co-existence of such an amount of pressure from effused blood as to produce coma. The indications I refer to are, more or less constant restlessness, accompanied by spasm, in which some particular member is affected, or amounting to general convulsion. If capable of giving expression to his feelings, the patient will point to some particular part of the head as the seat of pain. In some instances, noisy incoherency and obtuseness of intellect accompany this condition from the first. When these symptoms are well marked, they usually culminate, after three or four days (provided the patient survive so long), in fever, wild delirium, and more violent convulsion, in which he may die; or he sinks into a state of coma, which is the precursor of speedy death. These are the symptoms of fatal inflammation supervening on the mechanical lesion.

In some instances of laceration or severe contusion, accompanied by extravasation of a large clot, hemiplegia indicates the hemisphere opposite to the paralysed side as the seat of injury. But such hemiplegia may be accompanied by convulsion of the opposite side of the body; the interpretation of this complication is, that both hemispheres are injured, but that pressure exists on one side, viz., that opposite to the paralysis, and laceration or contusion on the other. It is scarcely necessary to add that the cross effect is equally uniform, whether the mechanical condition be that of pressure or irritation.

I have remarked that the upper surface of the hemispheres may sustain considerable injury without the immediate presence of symptoms to indicate it. Therefore, the absence of such symptoms must not be considered as conclusive evidence that the brain has escaped material lesion. The same remark applies, though with less force, to the substance of the hemispheres at their upper part; and it is especially remarkable what extensive lesions may occur in the anterior lobe of either hemisphere, without serious primary disturbance, either physical or mental.

The tendency of these mechanical injuries is similar to that of wounds in other tissues; but as reparation requires increased vascularity, this hyperæmic condition or inflammation is almost uniformly fatal. This result appears to be due to the delicacy of the organ involved, and to the absence of any vent for disorganised tissue and the superfluous products of the reparative effort; and probably, also, to the facilities afforded for fresh extravasation of blood. Thus, the period at which such indications may be looked for, is after the lapse of three or four days, though they may supervene after a much longer interval. General increase of vascular action accompanies the indications of local hyperæmia. The patient complains of pain more or less severe, and a sense of fulness or distension at some particular part of the head; and there is general feverishness, with disturbance of rest; this is followed either by stupor, or by the signs which I have just mentioned as characterising, at an earlier period, contusion or laceration of the brain; local or general convulsion, hemiplegia, delirium; and, after a varying interval, coma succeeds. If abscess form, it is usually, but not invariably, indicated by a well-marked shivering fit; and this is not necessarily accompanied or followed by coma. I have witnessed many instances in which the intellect has been unaffected till within a very short period of death, but where, after death, a large abscess has been found in the substance of the brain. I should, however, observe that the cases to which I refer were not directly consequent on cerebral lesion. Indeed, I believe circumscribed traumatic abscess in the substance of the brain to be of rare occurrence as an *immediate* sequence of injury to the head.

In one case, of which I have the notes, the patient, a young man of 23, had previously been the subject of severe headache, terminating in abscess of the left ear, on which side he was deaf; but in the intervals between these periodical fits of suffering, he was tolerably well. Two weeks before his admittance into the hospital, he had one of his usual attacks, but this did not terminate as on previous occasions. When admitted, he complained of extreme pain over the left temporal region, and a small quantity of pus was liberated by incision of the temporal fascia. The febrile disturbance, however, continued, and he became delirious, frequently pointing to the head as the seat of suffering. In this condition he remained until his death, forty-six hours afterwards. Pus was found within the sloughing temporal fascia, and over the corresponding portion of the bone within, separating it from the dura mater; also in the tympanum; the auditory passage was blocked with fungoid granulations. Nearly the entire middle lobe of the left hemisphere was occupied by an abscess, containing dark and fetid pus, which had found its way into both ventricles, but seemed to have no communication with the surface of the brain.

The succeeding case exemplifies the occurrence of abscess after injury, and the latent nature of the mischief during a considerable period, a circumstance which has been observed and commented on in other cases.

Not long since, I was consulted respecting the probable cause of abscess in the brain, occurring in a schoolboy who had previously enjoyed robust health. I inquired whether he had been the subject of any injury, and was informed by his father that he had been struck violently by a cricket-ball on the back of the head; but that occurrence preceded the illness about five weeks. He had been stunned by the blow, but recovered apparently in less than a week, pursuing his studies as previously, until he was suddenly, and without any suspected assignable cause, attacked by his fatal illness. The first symptom was a sense of cold, attended by shivering. On the second day, he complained of pain in the back, but continued to be tolerably cheerful. On the third day, he complained for the first time of pain in the head, pointing to his forehead as the seat of suffering; he was feverish, and became rather sick. Later in the day, the pain increased, and he became convulsed and delirious. The night was passed in sleepless delirium, frequent and incoherent talk, with occasional intervals of apparent consciousness. The fourth day was passed in the same state, and he seemed to suffer acutely in the head. On the fifth day, he was weaker; and he died, without coma or paralysis, on the sixth day. An abscess was found in the anterior part of the cerebrum, about large enough to contain a walnut, and at a point diagonally opposite to where the blow was received. There was no trace of tubercle found in the brain.

The following case appears to belong to the same category, and ran its course in a remarkably short time. An apparently robust youth of 17, a sailor, applied for admission into the hospital, stating that he had been attacked suddenly on the previous day with pain in his head. He did not account for this by referring to any injury which he had received. The pain was diffused, and he frequently shivered; he had an injected eye, a quick and small pulse, and a coated tongue. He passed a restless night, and on the following morning the headache was more intense, and located in the right temple; he lay on this side with his head low—the position he preferred. Through the day he appeared very drowsy but quite rational, desiring to be left alone that he might sleep. In the afternoon he became convulsed, and speedily died; little more than forty-eight hours having elapsed, according to his account, from the commencement of the attack. On examination of the head, a small quantity of pus was found over the right orbital ridge; and at this point was an irregular indentation, presenting the appearance of an old fissure; there was pus on the corresponding part of the cerebrum. On the same side, above the frontal sinus internally, two small tubercles or blunt spicula of bone were found projecting inwards; they were cylindrical and rough, and about half an inch apart; and in the interval a small squamous edge of bone overlapped the neighbouring part of the inner table; this corresponded to the indentation or fissure externally, but there was no communication between the interior and the exterior of the skull. Within the anterior lobe of the right cerebral hemisphere, superficially situated and opposite to the ossific projections, was a small circumscribed abscess, containing dark-coloured, unhealthy pus. The dura mater was entire. The comment which I attached at the time to this case is, that the accident, of which the patient had evidently been the subject, had been forgotten; and that the mischief, which proved fatal, had probably been *excited* by intemperance and irregular habits when he came on shore.

I shall presently refer to another case of traumatic abscess occurring concurrently with other complications; and I may take this opportunity of remarking, that the absence of symptoms of compression in this condition is probably due to the fact that brain-abscess is, usually, devoid of any new element in the composition of its ingredients, which are found to consist of nerve-matter in a state of degeneration and decomposition: pus-globules and other reproductive or reparative elements are almost or entirely absent. The surrounding cerebral structure is generally in a state of inflammatory softening, similar to that observed in traumatic lesion; and the extension of this mischief to some vital part explains the symptoms that accompany the sudden and fatal change which precedes death.

In a patient, of whose case I have notes, though he was not under my own care, three weeks elapsed from the time that he received a blow on the forehead before *any* head-symptoms declared themselves. He had, in fact, left the hospital, when a succession of fits was followed by left hemiplegia; subsequently, agonising pain, convulsion, and delirium preceded death about forty-eight hours. At the *post mortem* examination, the skull was found to be fractured, and an abscess occupied the right anterior lobe of the cerebrum.

Independently of the complications which are, so to speak, inherent in injuries of the head, there are others of an accidental nature which are occasionally a source of additional perplexity to the surgeon. Drunkenness is so often instrumental, indirectly, in causing accidents, that we are frequently called upon to discriminate between this predisposing condition and its more serious consequence. Under such circumstances, I am not acquainted with any conclusive evidence by which we may measure accurately what is due to intoxication, and what to brain-injury, assuming that they coexist. The safest course is to wait until the effect of the drink has passed off spontaneously, and then the indications of brain mischief become apparent from standing alone.

Again, delirium tremens may be excited by injury of the head, as by any other traumatic cause, and thus give rise to perplexity in diagnosis as well as treatment. I have the notes of one case under my care which proved fatal. A middle-aged man had fallen on his head and sustained a scalp-wound. Three days afterwards, symptoms of delirium tremens supervened; and before the opium which was given had tranquillised him, an epileptic fit closed the scene. The *post mortem* examination revealed neither injury to the skull nor abnormal condition of the brain. In another of my patients, of whose case I have kept a record, the injury to the head was more severe. The man had fallen and struck his head against a lamp-post; he was taken up, bleeding from a scalp-wound, and insensible. When admitted into the hospital, he rambled and gave disconnected and irrational answers. In the course of three or four hours he became violent and noisy. He was sleepless and had the other well-marked symptoms of drunken delirium. Opium was given cautiously; and, after profound sleep, he awoke rational, and ultimately made a good recovery.

The diagnosis of drunken delirium when the head is injured, is all the more important, in that we find, in some cases of such injury, the patient manifests symptoms in many respects resembling that condition. I have several cases recorded which exemplify the association to which I allude. In some, the incoherence, want of intelligence, and noisy, rambling talk, or violent resistance requiring restraint, date from the period of recovering from the first shock of the accident; or this symptom may appear synchronously, with others, indicative of inflammation, and be thus more readily identified.

Two patients were admitted under my care, into the hospital, within a few days of each other, whose cases exemplify all these several states. One, an omnibus-driver, was thrown from his box, and suffered severe fracture of the base of the skull, with laceration of both hemispheres. Though almost in a state of collapse when admitted, he was rambling about his horses, and repulsed the attempts made to examine his injuries. He survived four days, and continued to ramble and vociferate loudly from time to time, being always engaged ideally in his usual occupation; this seemed to be his one mental impression. He did not appear to understand questions put to him, and gradually passed into a state of muttering delirium before he became comatose just prior to his death.

The other patient was an engine-driver, whose head was struck by a locomotive at Woking. The left parietal bone was comminuted and driven into the brain, the middle meningeal artery being wounded. After removing an overhanging angle of bone with Hey's saw, I raised the depressed portion, and removed several loose fragments imbedded in the hemisphere; a compress was then applied to the torn artery. The patient was perfectly conscious and collected during the operation, and afterwards recounted how it occurred. On the second day he became feverish, and complained much of pain in the head, and his articulation was impaired; but it was not until the third day that he began to vociferate, and soon afterwards he became violent and convulsed. Coma preceded death a short time. Inflammatory softening had extended from the upper surface through to the base of the brain, and there was considerable extravasation of blood.

I will mention the particulars of another case, as illustrative of the difficulties which sometimes attend the diagnosis in doubtful cases of head-injury. An excavator was buried beneath fallen earth in a drain. He was soon disinterred and brought to the hospital. He was insensible; his pupils were contracted and sluggish; his breathing was stertorous, and he was convulsed. His respiration became intermittent, and at shorter intervals; and he died comatose after six hours, his heart continuing to beat for some time after respiration ceased. There was not any injury found in the brain or spinal cord; but a part of the contents of the stomach, identified by comparison, had found its way into the trachea, and had blocked up many of the bronchial tubes. The case was one of apnœa, complicated, probably, with concussion.

Occasionally it occurs that an antecedent condition is mistaken for a consequence, just as patients so often ascribe fracture of the patella to a fall on the knee, whereas the fall is caused by the previous fracture of the bone from muscular action. The cases to which I refer are those in which apoplexy occasions a fall. An instance in point recently occurred in one of my hospital patients. A middle-aged woman was admitted, who said she had fallen downstairs, and her symptoms were assigned to injury of the head. At first she was insensible, and all her limbs were paralysed and without feeling, as if she had been the subject of head-injury; and I was induced, when I first saw her, to take the same view as the house-surgeon, without making any special inquiry as to the particulars of her accident. But in a few days, her condition induced me to question her more particularly, and I found that she could not account for her fall. She was standing still at the time, and suddenly found her limbs give way beneath her. Her symptoms at this time were also considerably modified. There was feebleness in the right limbs, but complete paralysis of the left; sensation in the right limbs was considerably impaired, but scarcely perceptibly so in the left. The expression of the face, the speech, and the eyes were unaffected. This patient made a slow progress towards recovery.

The history of another of my patients points more distinctly to a similar explanation of the circumstances of his case. He had fallen downstairs, and was insensible for some time after the accident; on recovering consciousness, he was unable to move either left arm or leg. A careful examination failed to detect any injury to the head or spine; but, on inquiring into his previous history, it appeared that he had been suffering for some time from giddiness and headache, with a sense of fulness about the head, especially aggravated in stooping; and that he had suffered from slight sun-stroke, eight or nine years before in India. The conclusion I arrived at was, that the fall was occasioned by the condition of the brain, whatever that might be. He speedily recovered the use of his paralysed limbs, and left the hospital, still suffering from frontal headache, ten days after his admission.

The occurrence of pyæmia, in association with injuries of the head, has been noticed by writers on the subject. This form of blood-poisoning, with purulent deposits in distant organs, presents no peculiarities in the relation referred to; but it may introduce an additional perplexing element in the diagnosis, where obscurity previously existed. In my experience this is not a common occurrence. I think I may say that not more than two cases have been observed during the last five or six years at St. Thomas's Hospital, and not one in the many cases of head injury of which I have records, in my own patients. During last year a single case occurred in the practice of one of my colleagues; in this instance there was no fracture; the trephine was applied for secondary intracranial suppuration, and the patient died with brain abscess and purulent deposits in the lower lobe of the left lung. The pyæmic symptoms were masked by the more urgent cerebral disturbance. It is to this case that the chart, exhibiting the variations of temperature in rigor, refers.

The opportunities which the surgeon has of studying the effects of lesions of particular parts of the brain are unfortunately few; not because cases in which many such lesions occur are rare, but because the shock and concussion consequent on the violence inflicted, and the complicating sequences of the injury, deprive the lesion of those simple diagnostic characteristics, which enable the physician more frequently to identify and localise symptoms in disease. Such, at least, is the result of my own experience and observation; and although one-sided paralysis or convulsion point to the opposite hemisphere of the cerebrum as the seat of mischief, I am unacquainted with any diagnostic signs by which to determine whether it is the upper or under surface of the hemispheres which is the seat of laceration or of pressure from extravasation of blood; unless we except affections of the special nerves of sense.

I have pointed out and exemplified the fact that even extensive lesions of the cerebral hemispheres do not give rise immediately to paralysis; but that this condition is a common sequence of such lesions, after an interval of three or four days, more or less, when inflammatory changes have extended to the corpus striatum or optic thalamus. When paralysis occurs as an early symptom, these bodies are, one or both of them, the seat of lesion, or are pressed upon indirectly or by blood extravasated in their immediate neighbourhood. In the hemiplegic condition resulting from lesion of the optic thalamus or corpus striatum, the face is only slightly affected, especially about the ala nasi and angle of the mouth; the patient can voluntarily close his eye. But where the trunk of the facial nerve is diseased, the facial paralysis is universal and more strongly characterised. The former condition alluded to is exemplified in an interesting way, in a case, the record of which I have in my Dresser's report. The patient, a young man, was the subject of an injury to the head, by which the left parietal bone was extensively fractured, the coronal suture separated, the dura mater torn open, and the brain extruded. This patient survived till the fourth day, and was sensible for a considerable part of the time. The first symptom of paralysis was a slight loss of expression on the left side of the mouth, about twelve hours after the accident. This was more marked on the second day, when he began also to complain of some tingling and formication of the left hand, with loss of power; his articulation also became indistinct. The hemiplegic condition became rapidly developed in the leg and arm, and was complete before he lost consciousness, but the facial paralysis did not proceed beyond a marked loss of expression on the left side. The autopsy revealed, among other lesions, "softening of the cerebral substance, with effusion of blood extending to the *right* corpus striatum and optic thalamus which were both involved, the structure of these bodies being distinctly softened, and presenting a blood-stained colour."

Of aphasia as associated with right hemiplegia I have no particular record. In several instances, both of fatal and recovered injuries of the head, I have noticed both difficulty in articulation, and apparently in the selection of words to express ideas; but this condition existed without hemiplegia, or with hemiplegia indifferently of either side. In one particular case, in which the patient at first talked thickly, and was subsequently unable to speak, though evidently intelligent when roused, there was found considerable contusion, with extravasation of blood in the upper and anterior part, as well as on the posterior and inferior surface of the left anterior lobe of the cerebrum. But there was no paralysis in this case; and the patient survived only eight hours. He had been struck on the occiput, and his condition and manner at first led to the impression that he was intoxicated.

Traumatic lesions of the cerebellum, pons, and crura cerebri are, comparatively, infrequent; and, when met with, they usually coexist with other injuries, and thus the special characteristics associated with these lesions are masked; and even in disease they are not constant. In one case under my care, in which more than half of the right cerebellar hemisphere was occupied by an abscess, severe headache, flashes of light, singing in the ears, were the chief symptoms. In another case of severe laceration of the cerebellum, shock and other injuries hastened a fatal termination; but in neither of these cases was there convulsion; and in the former no evidence of want of co-ordinating power. When this last named defect is present, together with dilated pupils and pain in the head, and involuntary periodic cries are uttered, without interference with the intellectual functions, we may predicate pretty certainly the existence of cerebellar disease. When hemiplegia exists, it is on the side opposite to the lesion.

The co-existence of hemiplegia of one side, with paralysis of the third nerve of the opposite side, is indicative of lesion of the crus cerebri on the side on which the third nerve is paralysed.

ON PUNCTIFORM ECCHYMOSES IN THE INTERIOR OF THE BODY AS A PROOF OF DEATH BY SUFFOCATION.

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THE accompanying table has been constructed with the view of throwing some additional light on the important points in dispute between the two celebrated French and German experts, Tardieu and Liman (*Annales d'Hygiène et de Médecine*, tom. i, 2 s., No. 8, p. 371, No. 56, pp. 365 and 388, No. 57, p. 104; *Vierteljahrschrift für gerichtliche und öffentliche Medizin*, Caspar u. Horn, i, 50, vii, 84, viii, 187 and 278, xix, 73), as to the diagnostic value of those minute effusions of blood on certain internal surfaces, known as punctiform or capillary ecchymoses; or from their respective seats, as subpleural, subpericardial, and subpericranial ecchymoses.

Of the 59 cases of sudden death here tabulated, all of them the subjects of medico-legal investigation, 13 were published in April last, in another connexion. (Vide *British and Foreign Medico-Chirurgical Review*, No. 82, p. 454.)

The spots or effusions in question, with the few and partial exceptions noticed in the table, were found to vary in size from a pin-point to a large pin-head, and in number from three or four to thirty or forty, in the respective localities.

In 52 of the cases, the blood-spots occurred on the surface of the lungs; in 31, on the heart; in 22, on the inner face of the scalp; in 18, on the pericranium; in 14, on the thymus gland; in 9, on the interior of the pericardium; in 8, on the root of the aorta; in 5, on the liver; in 2, on the skin; and in 4, singly, on the spleen, diaphragm, pulmonary artery, and pleura costalis.

In most of the instances, the minute rounded spots were in greatest numbers on the thymus gland, the lungs, and the heart; their numbers, though still considerable, being, as a rule, fewer on the pericardium and scalp, while they were only met with in threes and fours on the liver, spleen, diaphragm, pulmonary and aortic arteries, and costal pleura. In one of the skin-cases, the ecchymoses appeared in a cluster over the cartilages of the fourth and fifth right ribs; in the other, they were massed in large numbers on the fronts of the neck and chest.

The ecchymoses on the scalp and pericranium differed from the blood-clots not unfrequently met with on turning down the scalp in infants perishing from determination of blood to the head in difficult labours; these last being of irregular forms, and of different sizes, up to half an inch and more in breadth.

The marked preponderance of the instances of these ecchymoses in early life will be seen from the table.

The *post mortem* inspections pointed more or less clearly to the *proximate cause* of death in each of the first 26 cases. Thus, in Cases 1 to 26 inclusive, we find 11 presenting distinct and obvious traces of fatal violence; 4, more or less distinctly deaths by pneumonia; 2, by pulmonary œdema; 2, set down at the time as deaths from cold; 2, deaths by drowning; and the remaining 5 respectively, as deaths by hanging, pulmonary apoplexy, cerebral apoplexy, scarlatina, and heart-disease.*

The evidence pointing to the proximate cause of death in the 6 cases which follow was less satisfactory. It has been put down hesitatingly as bronchitis (?), from the observed amount of mucous fluid in the air-passages and air-cells of the lungs.

Cases 33 to 38 were obviously deaths from suffocation, as this term is usually understood; and, in 4 of them, in the form of it known as smothering.

Passing from these first 38 cases in the table to the last 21: in the absence of any of the usual morbid appearances which indicate the mode of death, we have nothing to guide us as to its cause, beyond the presence in these of the capillary ecchymoses. The light mucous froth, usually white, sometimes red, on which Tardieu is disposed to rely as a corroborative sign, was certainly present in 17 of the cases; as were also the dilated air-cells in 1, and the submucous and subcutaneous contused appearances around the lips in 1—signs which this authority likewise regards as characteristic. But these appearances were equally met with in others of the cases which could not be set down as pure instances of suffocation.

It will be observed that 15 of the last set of cases were new-born infants; and the others, infants of from twelve days to fifteen months, averaging under two months.

The close resemblance of the last set of cases to the 6 set down as *presumably* deaths by bronchitis, deserves also to be noticed; but, for the amount and the extension to the air-cells of the lungs, both sets of cases must have occupied the same place in the table.

It likewise deserves notice here, that although punctiform ecchymoses are noted as present in the cases where suffocation alone could not be justly predicated, it is when we come down to the lowest set of cases in the table, that the blood-spots become the most numerously diffused on the different surfaces.

But, besides the marked preponderance of these appearances, both as to frequency and variety of seat, in the last 20, as contrasted with the cases standing above them in the table, I think it important to state that, as far as my own observation extends, the cases at the top of the list require to be received as rare and exceptional instances of such appearances in the forms of death there noted. For instance, the 2 cases set down were the only instances of ecchymoses encountered in upwards of 200 drowned bodies; the 1 case the single instance in betwixt 40 and 50 hanged persons; while I have never met with ecchymoses after death by strangulation. On the other hand, it is but equally fair to state that I have sought in vain for the blood-spots in nine cases of undoubted deaths by suffocation; all, however, adults.

Without going so far, then, as to deny the occasional though rare occurrence of punctiform ecchymoses after deaths from other causes, or insisting on the necessary presence of these minute effusions of blood in every instance of death by suffocation, I am disposed to conclude that the discovery of such spots in the dead body, in considerable numbers, in well-defined shapes, and limited in size, on the heart, lungs, and thymus gland, especially in infants, either with or without other corroborative tests, and in the absence of other obvious morbid conditions, will afford the strongest presumptive evidence, if not absolute proof, of this special form of sudden death.

CLINICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

HYDATID OF THE LIVER DISAPPEARING UNDER THE ADMINISTRATION OF IODIDE OF POTASSIUM.

(Reported by N. HECKFORD, Esq.)

ABOUT two years ago a young woman, aged 22, came under treatment for what was diagnosed to be a hydatid of the liver. The tumour was undoubtedly connected with this organ, and occupied the whole of the epigastrium and part of the left hypochondrium. It was smooth, globular, dull on percussion, semi-elastic, and indistinctly fluctuating. The parasite was evidently growing rapidly, as the patient had not noticed the enlargement until the previous fortnight. As is usual, there was little constitutional disturbance, some pain and dyspepsia being the only attendant symptoms. She was put under a course of iodide of potassium—thirty grains a day—and at first as a mere matter of form. To the surprise of all, however, the tumour began to diminish, and by the end of five weeks had entirely disappeared. The measurement round the waist decreased to the extent of four inches and a-half during this time.

Here arose another interesting point. The girl, judging from her physiognomy, was, without doubt, the subject of inherited syphilis. Was the case, then, possibly one of syphilitic infiltration of the liver? Unhappily, two months afterwards its true nature was definitely ascertained. The patient, whilst apparently in good health, was seized with acute hepatitis, which terminated fatally. She had frequently recurring rigors, bilious vomiting, local pain, diarrhœa, sweating, and rapid emaciation.

After death, several abscesses were found in the right lobe. With the exception of a small portion of its free edge, the left lobe was wanting, its place being occupied by a shrunken hydatid cyst, which contained some clear yellowish fluid. There was no decomposition of the cyst-wall or its contents. I am of opinion, therefore, that the abscesses were not the result of septic poisoning, and that so far as the hydatid went, she was cured. There were no evidences of pyæmia in the other organs.

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* The blood-spots in No. 16 were probably, and in No. 15 possibly, due to spanæmia (purpura). There were no vibices, however, on the skin in either.

ON THE COMPARATIVE RESULTS OF THE INSPECTION OF RECRUITS BY MILITARY AND CIVIL SURGEONS;

AND ON THE REGULATIONS LAID DOWN FOR THE GUIDANCE OF MEDICAL MEN.*

By J. I. Ikin, F.R.C.S., Leeds.

I HAVE selected this subject to bring before Section E, as it is a legitimate one for discussion, and forms no unimportant branch of Public Medicine. It is also a subject of public interest as well, and deserves more attention on the part of the medical profession than it has yet received. Now that so great a number of our brethren are connected with the army, navy, militia, yeomanry, and volunteers, it is not an inappropriate time to call attention to a few facts and results, which I trust may have some practical effect, and serve to stimulate the civil practitioner to pay more attention to the Regulations laid down by the Army Medical Department for the inspection of recruits, and induce the teachers in our medical schools to pay more attention to military hygiene. My own experience in military duties, and in the inspection of recruits, has been gained since 1853, and it has been somewhat extensive and varied, as shewn by Table No. I; and I trust gives me some right to address the Section on the subject.

It will be seen from the table that I have inspected 12,656 recruits, up to Dec. 31st, 1867, and I have kept a regular register of every man inspected. I may be pardoned for adding, that militia surgeons are placed in a somewhat peculiar and anomalous position. In critical times, like those of the Crimean War and Indian Mutiny, they are liable to be called out for permanent duty. They are compelled to relinquish private practice, or sacrifice a great portion of it, as most militia surgeons did during the Russian War, 1853-54-55. They have to perform their military medical duties, just as it suits the convenience of the public service, attending to the recruiting one-half of the year, performing staff duty all the year, having medical charge of their respective regiments (may be one thousand strong) for forty-two to fifty-six days annually. They have all the militia volunteers for the army or the army reserve to re-inspect; their militia hospitals have to be arranged and fitted up afresh each year, and hospital furniture obtained from, and returned to, the Barrack Department, after almost endless correspondence to obtain what is absolutely necessary, down to the purchase or possession of the most trifling articles; to quote a striking case in point, of a dust-shovel and mustard-pot being sent all the way from the Tower of London to Leeds. Numerous returns are required at the end of each training, and, except during this period, the surgeon is not in receipt of permanent pay, and then it is not equal to that of a surgeon in the line, and he has no prospect or title, like the latter, to any pension or retiring allowance, except under very exceptional circumstances, which scarcely, if ever, arise. Formerly this was not the case, and militia surgeons, after lengthened service, had half-pay or some pension allowed.

As a militia surgeon ranking amongst the seniors of the class, I feel justified in stating, what I believe is the feeling of the profession generally, that such responsible, varied, and uncertain service, as we are called upon to render, does not meet with that support of the state or that scale of remuneration to which it is entitled, and which other branches of the public service, both military and civil, receive. During the Crimean War, our duties were most harassing, and change of quarters frequent. Some regiments were sent abroad; most of them had to perform garrison duty; volunteering into the army was constant; thus doubling the work. No less than five commissions were obtained without payment, in less than eighteen months, out of my own regiment, by young officers taking their seventy or eighty volunteers each into the line, thus receiving the benefit of the labours and judgment of the medical officer.

I merely name these points to prove how the militia surgeon's experience has been acquired, and how, with ordinary attention to his duty, his judgment with reference to the selection of recruits for the service ought to be correct, if not indisputable.

The immediate object of this paper is, however, to draw the attention of the Section, and the civil practitioner in particular, to the sort of stigma that is cast upon his judgment and knowledge by the fact, that so large a proportion of the recruits inspected by him and passed as fit are, on secondary inspection by army and staff surgeons, rejected as unfit for the service.

The prevalent causes of the rejection of recruits are tabulated for your information (*vide* Table No. V appended), compiled from the Statistical Returns of the Army Medical Department, 1865, so ably edited by Deputy Inspector-General Dr. Balfour, of the War-Office. The other Table II (appended), on the causes of rejection, is made out from my own register, and was prepared for a paper read before the Social Science Association at its York meeting. The leading facts and deductions brought out by these statistics are sufficient to elucidate the precise nature of the duty under discussion, and I shall not further dwell on the causes of rejection.

TABLE V.—*Causes of Rejection of Recruits during* 1865. (*Total number inspected*, 24,891.)

	Number rejected.	Ratio p. 1000.
Syphilis	328	13.18
Other zymotic diseases	52	2.09
Scrofula	237	9.52
Phthisis	124	4.98
Brain, spinal cord, and nerves	15	.60
Other constitutional diseases	172	6.91
Eyes and eyelids	1072	43.07
Diseases of nose and mouth	37	1.49
Diseases of ears	44	1.77
Deafness	34	1.37
Impediment of speech	48	1.93
Disease of heart	465	18.68
Arteries (aneurism)	14	.58
Veins (varix)	876	35.19
Lungs (except phthisis)	86	3.45
Malformation (chest and spine)	678	27.24
Loss or decay of many teeth	402	16.15
Hernia	315	12.66
Tendency to hernia (laxity of abdominal rings)	222	8.92
Hæmorrhoids	82	3.29
Urinary organs (not syphilis)	10	.40
Varicocele	583	23.42
Hydrocele	18	.72
Other diseases of genital organs (not venereal)	70	2.81
Muscular tenuity	586	23.54
Debility	164	6.59
Defects of upper extremities (contractions, fractures, etc.)	192	7.71
Ditto of lower ditto ditto	808	32.46
Diseases of joints	107	4.30
Other affections of bones and muscles	89	3.58
Ulcers, wounds, and cicatrices	249	10.00
Affections of cutaneous system	116	4.66
Weakness of intellect	53	2.13
Malformation of ears	2	.08
Malformation of nose and mouth	3	.12
Malformation of chest and spine	225	9.04
Malformation of urinary and genital organs	33	1.32
Marks of punishment: letters D. or B.C.	78	3.13
Unsound health	600	24.10

TABLE II.—*Causes of Rejection out of* 5186 *Recruits inspected for Line and Embodied Militia.*

	Number rejected.	Ratio p. 1000.
1. Malformation of trunk and limbs	341	65.76
2. Age, ulcer-marks, varicocele, syphilis, and other causes	261	50.32
3. Muscular tenuity	178	34.32
4. Pulmonic and cardiac disease	136	26.22
5. Varicose veins	133	25.65
6. Unsound or delicate constitution, cupping-marks, etc.	126	24.29
7. Skin-disease	97	18.70
8. Hernia	89	17.16
9. Scrofula, disease of bones, glands, etc.	85	16.39
10. Defective or loss of teeth	72	13.90
11. Defective sight	65	12.53
Total	1583	305.24

I keep, also (as I dare say most of my militia brethren do), a statistical table of the state of education of every recruit I inspect, as shown in Table IV. When the British Association for the Advancement of Science met at Leeds, there was a warm discussion before the Statistical Section on the defective state of the medical returns of the army, and of the health and educational statistics. I had occasion to vindicate the accuracy of these returns, and to reply to some severe criticism upon them, made by public actuaries of note then present, who were scarcely cognisant of the facts, or acquainted with the labours of the Army Medical Department, and with the exact mode adopted by it in framing these returns. I was requested, at that meeting, to bring my educational statistics before the Association at some future meeting, but I have not yet had the opportunity of doing so. I am sorry to say they shew a sad want of education, or even knowledge of reading and writing, amongst recruits.

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* Read before the Public Medicine Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

What do the returns of the Army Medical Department shew to be the result with regard to the inspection of men by civil surgeons, as compared to those inspected by military medical officers? Now, in 1860, 27,853 recruits were examined at the head-quarters of the various recruiting districts; of these, 7,128, or 256 per 1000, were found unfit for the military service. On secondary inspection, 178 per 1000 of those inspected by civil surgeons were rejected, and 90 per 1000 of those previously inspected by military medical officers—just double the number of rejections to those who had been examined by army surgeons.

In 1861, only a small number of men were required for the army, and only 12,161 were inspected at the head-quarters of the recruiting districts; of this number, 4600 were found unfit; and the same ratio of rejections, on secondary inspection, as in the previous year; viz., 90 per 1000 of those examined by the army surgeon, and 178 per 1000 of those inspected by the civil surgeon.

In 1862, again, the number inspected at the head-quarters of recruiting districts was small, amounting only to 7684; of these 3081, or 401 per 1000, were found unfit for military service. The ratio of rejections on secondary inspection was 155 for army surgeons, 259 per 1000 for civilians.

In 1863, 11,487 recruits were inspected at head-quarters of recruiting districts; of these, 441 per 1000 were rejected as unfit for service. The ratio in secondary inspection was in the proportion of 151 per 1000 for the army surgeon, 331 per 100 for the civilian. The returns for this year (1863) of the inspections made at head-quarters of recruits and depôts, as distinguished from the final inspection at the head-quarters of the recruiting districts, are still more discreditable to the civil practitioner, for I find they were 38 per 1000 for the army surgeon, and 265 per 1000 for the civil surgeon.

The return for 1864 I am not able to furnish, as I could not lay my hand on the *Blue Book* for that year.

The last return issued, that for 1865, shews that the total number of recruits inspected, including those at head-quarters of recruiting districts, at regimental head-quarters, depôt battalions, and by civil practitioners, was 24,891. Out of these 9289 were rejected as unfit for service. The ratio of rejections at the secondary inspection was for those inspected by the army surgeon 38 per 1000, by the civil practitioner 149 per 1000, and the editor of the *Army Medical Report* very justly states "that these rejections necessarily involve a considerable expense, which might be saved by a little more strictness on the part of the civil medical practitioner, or perhaps a more practical knowledge of the requirements of military service." For clearness I have tabulated these results. (*Vide* Table No. VI.)

TABLE VI.—*Rejections on Secondary and Final Inspections.*

	Ratio p. 1000 of those prev. inspected by army surgeons.	Ratio p. 1000 of those prev. inspected by civil surgeons.
1860	90	178
1861	90	178
1862	155	259
1863	151	331
1865	38	149

The facts brought before your notice are unquestionably sufficient to prove the justice of the remark just quoted, and are sufficient to show that civil surgeons are bound to exercise more caution in their inspection of recruits, and to study the regulations laid down for their guidance with more attention. It is the carelessness on the part of medical men in this respect that has a tendency to make the experienced army and staff surgeon treat the opinion of the civil surgeon in military medical matters often with a sort of contempt and indifference which otherwise might be undeserved and unwarranted. When in charge of troops, as I have been for years together, including every branch of the service, I have frequently had occasion to reject men previously passed as fit that one would have thought no medical man holding a diploma could possibly have considered physically qualified for the service, the causes of unfitness being so palpable and transparent. For the credit of our profession, and to obtain the influence it ought to be able to exercise in every department of the public service, in any way connected with sanitary matters, the sooner such a state of things is remedied the better. In justice, however, to the civil practitioner, I am bound to add, that this want of practical knowledge in the recruiting branch of the service, is not confined to him. I have known surgeons and assistant-surgeons in the army who had little or no experience in this duty, sent to important stations, and have known them pass men totally unfit for the service, and afterwards rejected by medical boards. In consequence of this, and in their anxiety to escape responsibility, they have declined to pass men often fit, but as in their judgment there might be a little doubt, they have naturally decided to give themselves the benefit of the doubt, in order to avoid an official letter of explanation from the head of the department, and save further trouble; consequently eligible men were lost to the service. The establishment of the Military Medical School and Hospital at Netley will doubtless have the effect of furnishing superior army surgeons; but regimental practice and the charge of a depôt battalion furnish the best opportunities for gaining the practical experience that is essential.

A word as to the regulations themselves. They are very clear and precise; indeed, those just issued (May 1868, which I hold in my hand) by the War Office, referring to the army and militia reserve, are too particular and exact for any except a very small proportion of men out of any average, or even crack regiment, to pass the ordeal; let me for a moment refer to the "New Regulations for Militia Reserve, issued May 1868, by the War Office." [These were quoted by the author, who continued.]

It is well for the young surgeon to know that a sharp commanding officer and a zealous adjutant can scrutinise a recruit with such shrewdness and discrimination, as to detect causes of disqualification that medical men have even overlooked. To see a medical man inexperienced in the duty of inspecting recruits perform this duty before a sharp recruiting sergeant accustomed to enlist men, is really a humiliating, if not ridiculous, exhibition.

Before concluding, let me ask why, if the volunteers are to be considered as part of our army of reserve, should they be exempt from medical inspection? Many good reasons no doubt could be assigned for dispensing with it, and perhaps it would not be submitted to, but I do not feel certain that it is prudent to consider and count men as soldiers merely because they are entitled to wear a uniform, and attend parades and reviews when they feel disposed, when perhaps on medical inspection they would be found unfit for any length of service, and deficient in the physical qualifications that soldiers in all countries are required to possess.

As an old sanitary reformer, I rejoice to see the Association appropriating a section to the consideration of public medicine. On observing this in the programme, I penned these remarks, and determined to place them at its disposal. The facts now prominently brought before the profession (which is not in the habit of consulting the statistics of the Army Medical Department) come fairly within the scope of public medicine, and merit consideration. It is gratifying to all labouring in the cause of public hygiene to find it rapidly gaining a position in the state with such an able representative as yourself at its head. I feel confident it is destined hereafter to hold a higher position in this country than it does at present.

UNILATERAL HYPERÆMIA IN HEMIPLEGIA.

By T. HENRY GREEN, M.D.LOND., M.R.C.P.,
Lecturer on Pathology at Charing Cross Hospital.

It is now well known that, in hemiplegia, cases are occasionally met with in which the temperature of the paralysed limbs is higher than that of those which are not paralysed. M. Gubler was one of the first to draw attention to this in 1856. (See paper in *Gaz. Heb. de Méd.*, 1856.) He says that this elevation of temperature is accompanied by hyperæmia, which may declare itself by the occurrence of catarrh, excessive flow of saliva, increased action of the skin, or hypersecretion of the axillary glands, on the paralysed side. In one case, he found that the saliva of the affected side was alkaline, whilst that of the opposite side was acid. Dr. Brown-Séquard in 1863 observed, in a case of hemiplegia, dilatation of the vessels, elevation of temperature, increased action of the skin, and hemicrania, all limited to the paralysed side. M. Chevallier during the past year published some most careful thermometrical observations on five or six cases of hemiplegia. (See *De la Paralysie des Nerfs Vaso-Moteurs dans l'Hémiplégie*, par Paul Emile Chevallier.) In one of these, there was a difference of 2.30° cent. between the two sides. In another case, the return of power was accompanied by a corresponding return of the temperature to the normal standard, the parts falling in temperature in the same order in which they regained their power; that is to say, the temperature of the two lower extremities became equal first, then that of the two sides of the trunk, then the two upper extremities, and, lastly, the two sides of the face.

The following case, partly observed in University College Hospital, where the patient was for some time under the care of Dr. Hare, who has kindly allowed me to publish it, also exhibits in a marked degree a hyperæmic condition of the affected side in hemiplegia.

A man, aged 33, who had for some months suffered from occasional pains in the right side of the chest extending down the right arm, suddenly became paralysed in the right side whilst sitting at dinner, and was unable to speak. He did not fall from his chair; and, though he was rather confused for a moment, there was no marked loss of consciousness. From this attack he recovered almost completely in two days. Five days after this, he had another attack precisely similar to the first, but rather more severe; in this, also, consciousness was but slightly affected. The patient now for the first time came under observation. He presented the ordinary signs of hemiplegia from slight lesion in the left optic thalamus and corpus striatum. In addition to this, the right side of the face was flushed, and covered with large drops of perspiration; the left was of a natural moisture; and a distinct line of demarcation existed between the two, running down the centre of the forehead, nose, and chin. There was the same difference between the two sides of the chest and abdomen; but here the sweating was not so profuse, and the flushing was limited to slight redness at the upper part of the chest on the right side. The right arm was also distinctly moister than the left; but between the legs the difference was very slight, and only just sufficient to be appreciable. On wiping the perspiration from the right half of the forehead, it reappeared in less than two minutes. The temperature in the right axilla was 100° F.; that in the left, 98.5° F. A physical examination of the chest yielded pretty conclusive evidence of an aneurism of the ascending and adjacent part of the transverse arch of the aorta. The pupils were equal. The right radial pulse was scarcely perceptible. The amount of moisture of the right side varied considerably; but it was always decidedly in excess of that of the left, and was increased by the least exertion on the part of the patient, or by drinking warm fluids. When the sweating was profuse, the temperature in the right axilla was invariably higher than that in the left; the excess being usually as much as 1° F., and often as much as 1.75° F. The less the amount of perspiration, the more nearly did the temperature of the right side approximate to that of the left. The unilateral sweating and flushing always bore a direct ratio to one another; they occurred first immediately after the first attack of hemiplegia.

The patient quickly regained the power in his limbs, and the faculty of speech was more gradually and somewhat less completely restored. The sweating became less and less frequent and profuse; and, in one month from the date of his second attack, the difference between the moisture of the two sides was not to be appreciated, and the temperature of the right axilla was identical with that of the left. The man now appeared so well that he would, had he been allowed, have resumed some light occupation. He continued in this state for about two months, when he suddenly lost consciousness completely; the breathing became stertorous, and death ensued in the course of a few hours.

Autopsy.—The vessels on the surface of the brain were distended with fluid blood. The convolutions were somewhat flattened. There was a large quantity of clear serosity in the lateral ventricles. The other parts of the brain were healthy. No thrombus was found; but, from the circumstances of the case, a careful examination was impossible. There was a large aneurism of the aortic arch, not in contact with the posterior thoracic parietes. The left ventricle was hypertrophied.

We may, I think, conclude that the three attacks of hemiplegia in the above case were due to embola obstructing the circulation in the left corpus striatum and optic thalamus; and that these probably originated in the aortic aneurism. Their suddenness, the rapid and complete recovery from the first, and to a less extent from the second, the fatal issue of the last, and the absence of any morbid appearances in the brain, with the exception of well-marked plethora, together favour this view. The elevation of temperature, the flushing and sweating, clearly indicated some change in the vascular system of the paralysed side. The sweating, indeed, was peculiarly well marked—much more so than appears to have been the case in most of the recorded observations.

Upon consideration of these cases, we can, I think, have no hesitation in ascribing the unilateral hyperæmic phenomena to a dilatation of the blood-vessels. We know, at all events, that the vaso-motor nerves play an important part in regulating the circulation; and Brown-Séquard, Bernard, and others have conclusively shown that, in doing so, they also modify the temperature. It must be remembered that these nerves are not made up of sympathetic fibres only, but that they contain also large contributions from the cerebro-spinal system; and it is in this fact that we must look for an explanation of the vascular dilatation that sometimes exists in hemiplegia. The influence of the cerebro-spinal centres upon the circulation is very evident from the dilatation of the vessels and elevation of temperature which result from division or injury of one-half of the spinal cord, in the parts below and on the same side as the seat of injury; and from the production of the opposite effect by its irritation. The majority of the fibres of the cord are continued upwards into the cerebrum, many of them ending in the optic thalami and corpora striata. If those which join the sympathetic, to constitute the vaso-motor nerves, also originate in the cerebrum—and I think the evidence of the cases now under consideration justifies the conclusion that they do—we should expect that lesions in some parts of this centre, interfering either with the origination or transmission of nervous force, would be followed by a similar change in the calibre of the blood-vessels. In the case which has been related above, the exact correspondence of the hyperæmia with the distribution of the cerebro-spinal nerves on the right side was peculiarly characteristic, and naturally leads one to associate the cause of the one with the lesion that interfered with the function of the other. The absence of any increase of the secretions is also important, as showing that hyperæmia does not necessarily affect nutrition, although the nutritive activity of an organ is more easily augmented when its supply of blood is from any cause increased, as is exemplified by some of the cases recorded by MM. Gubler and Chevallier.

Why does this unilateral hyperæmia occur in some cases of hemiplegia, and not in others which in every other respect appear to be precisely similar? This question our present knowledge does not enable us to answer, and it is one well worthy of further physiological and clinical research.

CASES OF UTERINE HÆMORRHAGE.

By W. DRAPER, M.R.C.S., etc.,

Resident Surgeon to the York Dispensary; late Resident Obstetric Officer to the Middlesex Hospital.

THE following somewhat interesting cases of hæmorrhage occurred to me, among many others, during my term of office as resident obstetric officer to the Middlesex Hospital in 1866.

In obstinate cases of *post partum* hæmorrhage, in which the ordinary means fail to produce contraction of the uterus and to arrest flooding, I strongly advocate the employment of intrauterine injections. I have injected both strong infusion of matico and iced water in many cases with the greatest success, and in no single instance have I seen the treatment productive of harm.

CASE I. *Accidental Hæmorrhage at eighth month, treated by Intrauterine Injection.*—This case was first seen by me at the hospital, when the patient informed me that she was eight months gone in pregnancy, and that during the last few days she had had considerable hæmorrhage, which still continued. A vaginal examination discovered the cervix uteri about two-thirds obliterated, soft, and yielding. The tip of the index finger passed freely into the external os; but the internal os was not dilatable. I ordered the patient home to bed, and to take a draught containing sulphuric acid and laudanum every three hours, with cold to the vulva, and a firm abdominal bandage. In the evening of the same day, I was called to the patient, as she was having great loss. The external os uteri now admitted the finger freely. On passing my hand into the vagina, I was enabled to reach the internal os, which with difficulty admitted the finger-end, but which appeared dilatable. I could feel the fœtal head presenting, but nothing like placenta. As the hæmorrhage was very free, I passed an elastic catheter into the uterus (carefully avoiding the membranes), and injected about two ounces of a strong infusion of matico; and then plugged the vagina. The patient being much exhausted, beef-tea and brandy were given freely.

The following morning, when I removed the plug, as some slight hæmorrhage occurred, I again injected the uterus with infusion of matico, and replugged. The os was rather more dilated. When the plug was again removed, there was no more hæmorrhage. Labour set in naturally some days later, when the case came to a favourable termination; child living.

CASE II. *Post Partum Hæmorrhage: Contraction of the Uterus produced by Intrauterine Injection of Iced Water.*—A student called me to this case some time after the expulsion of the placenta. I found the patient much exhausted, and flooding violently. Having restored her somewhat with brandy, etc., I removed some large coagula from the uterus, gave ergot, applied pressure, etc.; in fact, employed all the ordinary means to arrest the flooding, without avail. I then passed a large male gum-elastic catheter (having a syringe attached) into the cavity of the uterus, and injected several ounces of iced water. The uterus contracted almost immediately; and, pressure then being applied, the contraction was kept up, and no more hæmorrhage occurred.

Case iii. *Hæmorrhage fifteen days after Delivery.*—One of the hospital midwives called me to this case fifteen days after delivery of twins. The patient had suffered great loss before my arrival, and she was still flooding freely. Examination discovered the os uteri dilated sufficiently to admit the index and middle fingers easily. A firm blood-clot was found in the uterine cavity; this was removed, and firm manual pressure was exerted over the uterus; but very slight contraction of the organ was produced. As the hæmorrhage continued, a compress was applied, the vagina was well plugged, and the following draught prescribed every three hours.

℞ Liquoris secalis ♏xv; acidi gallici gr. v; acidi sulph. dil. ♏xx; aquæ menthæ piperitæ ad ʒiss. M.

On the following day, when the plug was removed, the uterus was found to be much diminished in size, and the os well contracted. No more hæmorrhage followed, and the patient made a good recovery.

Case iv. *Post Partum Hæmorrhage from Irregular Contraction of the Uterus.*—I was called to this case some hours after labour, which, as the midwife in attendance informed me, had been a very rapid one. I found the patient flooding violently. Abdominal and vaginal examinations proved the fundus uteri to be tolerably well contracted. At about the middle third of the uterus, there was a firm constriction; below this constriction, the organ was dilated and flaccid, with the lips of the os everted. I removed a large clot from the lower dilatation, and then forced two fingers through the constriction into the upper portion of the uterine cavity, where another clot of considerable size was found. This having been removed, the right hand was made to dilate the uterine cavity; and the uterus was then grasped abdominally by the left hand; and, the other thereby being forcibly expelled from the interior of the uterus, the organ was made to contract uniformly, and no more hæmorrhage ensued.

THE CARBOLIC ACID TREATMENT.

By ALFRED FLEISCHMANN, Esq., M.R.C.S.,

Late Physician-Accoucheur's Assistant to King's College Hospital.

To most practitioners it must have occurred, "how different is the success of the same mode of treatment in different hands!" For instance, in my own hands, hydrochlorate of ammonia in neuralgia, and oxide of silver in menorrhagia, not indiscriminately used, scarcely ever fail. Three half-drachm doses of the first, and half a dozen quarter-grain doses of the second, succeed in nine cases out of ten; and yet I have been assured that others have tried them with an inverse success. Again, many modes of treatment seem to have a temporary success; and fashion in drugs, as in dress, is changeful and arbitrary.

It is a matter of surprise that Professor Lister's theory and practice of the carbolic acid treatment of wounds has engaged so little attention—a fact, I think, explained by the almost miraculous results he has obtained. Paradoxical as it seems, there is such a thing as failure from too great success. Most practitioners must have felt that, when a case of great danger or difficulty has been at once overcome, patients are apt to doubt if these elements ever existed, and think that the surgeon has exaggerated the case, to unduly enhance his own reputation. If Mr. Lister had been a little less successful, more attention would probably have been directed to his method. When we hear of a penetrating wound of the thorax, extending through the diaphragm into the cavity of the abdomen, through which the omentum finds its way externally, and we learn that in a few days the man, without an untoward symptom, returns safe and sound to his trade of bullock-driving, either we read one of the greatest improvements in surgical treatment that the century has yet seen, or we are listening to unscrupulous exaggeration. The judicious fear which prevents men from attending to what may be the hasty proclamation of incomplete results would lead many to the second conclusion, did not the established reputation of the accomplished surgeon point us to the first.

I recently have had an opportunity of putting the method to a crucial test—with what success the following brief account, I trust, will show.

A gentleman, aged 64, was, on the evening of the 22nd of July last, thrown from his carriage. I found him, a few minutes after the accident, supported in a chair, terribly shaken, but fully conscious. The scalp was torn up in a large, jagged, much contused flap, from the whole of the right half of the frontal bone, and from small portions of the temporal bone of the same side. One or two minor flaps, similarly contused and torn, hung over the forehead. There was absolute loss of nearly one-third of the torn-up tissue; the exposed bone was denuded of its membrane, and a portion of bone of the size of a threepenny-piece was chipped off. Owing to the contusion, there was but little hæmorrhage.

Before taking the responsibility of depending upon special treatment, I called in consultation Dr. Rumsey, who was fully prepared to bear me out. After cleaning the wound, I swabbed it with carbolic oil, prepared by adding half an ounce of Calvert's carbolic acid to four ounces of boiled linseed-oil. The parts were placed in apposition, and the whole wound covered (and an inch beyond) with a putty made of powdered chalk and the carbolic oil. Over this paste was spread a piece of lint soaked in the same oil. Half a drachm of Battley's solution and ten drops of tincture of arnica were administered. Ice was freely swallowed, and absolute quiet enjoined. There was some shock, but with favourable reaction.

The next morning, I found that the night had been comfortably passed, with some little sleep. The pulse was 112. There had been abundant oozing, which had caused the parts to crack and loosen. This I repaired, and freely brushed over the lint with the oil. The pulse in the evening was 106, and there was considerable cellular serous infiltration about the eyes and cheeks.

On the morning of the third day, I saw my patient in company with Mr. Newman, who had, up to the time of the accident, been attending him for gout. The pulse was 112; the erysipelas better. There were no head-symptoms—in fact, no bad signs of any kind. There was considerable oozing of thin, bloody, but odourless discharge.

Fourth Day.—The pulse was 93. There were no bad symptoms.

Fifth Day.—I perceived for the first time a slight animal odour, but found it proceeding from an abrasion that had been overlooked. The pulse was 93; the secretions were correct; the tongue clean; the appetite good.

Sixth Day.—Pulse 88. Salmon and sherry were allowed for dinner. The lint was brushed over with the carbolic oil.

Seventh Day.—There was nothing but progress to record. The right hand and knee were painful from gout.

From this date, the days passed and resembled one another up to the morning of August 2nd—that is, eleven days after the accident—when it was decided to remove the dressings. On removing the lint and putty, which easily came away like a thin cast, I honestly confess that I was disappointed; that is, I am afraid I had, in my enthusiasm, looked for extraordinary, and found only natural, results. Perhaps nothing has more retarded progress, and hindered the fruition of great ideas, than the natural tendency to overrate; and I fear that our own profession, from its innate liberalism and noble brotherhood, is a little too apt too attribute to great discoveries attributes of which they may well be shorn. It is very certain that Professor Lister has fructified and reduced to splendid practice a well-known principle; but it is as certain that tissue already dead is dead for ever; and that absolute loss of tissue must be replaced by Nature's liberality, rather than by her necessity. So in my case; the greater flap of torn tissue was so pounded and mashed, that muscular fibre, cellular tissue, vessel, and nerve, were reduced to one homogeneous mass; and, when first seen, were already dead. Again, allowing for retraction of torn muscle, one-third of the torn tissue was absolutely lost. Hence, on pulling off the mask which hid the wound, we found this—that the dead tissue had not come to life, and that the renewal of tissue was incomplete. But we also found, though the dead tissue was two inches square, and though the bone, bared of its nutritive mesh of nerve and vessel, was still bare, that Nature had done her spiriting gently. The line of demarcation between the living and the dead was definite, and a pair of scissors finished what Nature had begun. Again, the bone, though bare of membrane, was moist; and, though to prophesy is to prejudge, I think the dura mater will do her part, and be the alma mater of the denuded bone. I think a mere shell of bone will die; for the rest, the suppuration was next to nothing. The unhealed edges looked the perfection of health; and my first disappointment was, by reflection, changed to congratulation, wherein I was confirmed by my kind friend Dr. Rumsey. By his advice, which I already had anticipated, the open wound was dressed with diluted carbolate of glycerine; and, though the pulse was good, and the functions up to full health-mark, we first began to try the aid of internal medicine, and put him on ter-daily doses of quinine and acid.

I would ask those who read these lines to think of a ghastly injury like this, in an aged man, then under treatment for gout. How does torn tissue, poisoned with gouty virus, usually heal? What action might we, in such a case, have expected the cerebral membranes to take on? How, in nine cases out of ten, would the resultant erysipelas have ended? I will not occupy space by answers. I simply have recorded the case as it already stands. Professor Lister's treatment has been fairly followed, and I leave the profession to say with what success. The anxiety of the profession on this subject is at once my reason and excuse for not waiting for the end; but, should that be otherwise than perfectly satisfactory, I will not fail to record and confess it.

I beg to acknowledge the kind liberality and readiness with which Mr. Newman left the case in my hands, notwithstanding he was the usual family attendant.

P.S. September 17th.—The receipt of a proof-sheet affords me the opportunity of saying that, since the above lines were written (more than a month ago), the recovery has been, in point of fact, almost unretarded, except by frequent attacks of gout. The method in which the vessels of the dura mater vigorously pushed their way to the outer surface of the bone—becoming so superficial and distinct to the eye, that a touch with a pointed probe was sufficient to cause a tiny hæmorrhage—was a physiological fact that attracted the attention and admiration of both Dr. Rumsey and myself. The bone has been so nourished, that a mere shell (if so much) will die; and the artificial scalp, which Nature has nearly formed, will be an admirable substitute for the original outer covering of the cranium.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. MARY'S HOSPITAL.

JAUNDICE: PNEUMONIA: SUDDEN DISAPPEARANCE OF JAUNDICE: ITS RETURN WITH THE DECLINE OF PNEUMONIA.

(Under the care of Dr. CHEADLE).

F. B., a girl, aged 6½ years, was suddenly seized with vomiting, which recurred for several days. She became languid and feverish, and lost appetite. The child did not complain of any pain, nor was any tenderness of her right side observed. On the third day, the skin was first noticed to be yellow. She was then placed under medical treatment, and for four weeks the jaundice gradually declined. During the fifth week, however, vomiting again came on, and she became more yellow than before. She was then admitted an out-patient under Dr. Cheadle's care, on January 6th, 1868. At this time, her skin was of a bright lemon colour, and she was very thin, having lost flesh from the commencement; but the tongue was clean, the pulse quiet and regular, and she seemed in fair general health, although languid and weak. The urine was reported to be bilious, and the stools clay-coloured. Three weeks' treatment with nitro-muriatic acid and occasional doses of grey powder, produced no change. She remained as deeply jaundiced as at first, and did not appear to gain much flesh or strength. On the 28th, four days after her last visit to the hospital, the mother came alone in great distress, stating that her child was much worse, having been seized two days before with high fever, and become very restless and short of breath, complaining of tenderness and pain in the left side of the chest. She mentioned also that on the following day the skin, which up to this time had retained its deep yellow tint unchanged, had suddenly regained its natural colour. The child was at once visited at home, and, on examination of the chest, marked dulness was found at the upper part of the left lung, both in front and behind; under the clavicle the beating was intensely tubular, and at the upper part of the scapula fine crepitation was distinctly audible. The skin was excessively hot and pungent. The stools were stated to be still light coloured, and the urine dark, but none could be obtained for examination. As the mother had stated, with the exception of slight yellowness of the conjunctiva, the jaundice had entirely disappeared. Ten minims of antimonial wine in decoction of senega were ordered to be given every four hours, mustard poultices to the chest, and a liberal quantity of beef-tea and milk. The pneumonia gradually abated, but it was observed that, as the pulmonary inflammation subsided, the jaundice returned, and in the course of a fortnight the skin had again become decidedly yellow The pulse became very weak, and even irregular, for a few days, but from this time the patient steadily improved, and on the 25th of February, a month after the first access of the pneumonia, the lung was found to have almost recovered its normal condition, and the only trace of jaundice which remained was a slight tinge of the conjunctiva. The child continued to enjoy good health when seen three months afterwards.

This case must be distinguished from those in which jaundice follows pneumonia of the lower lobe of the right lung, as a consequence of a supposed extension of inflammation to the liver. In the present instance, the jaundice was antecedent to the pneumonia, and the seat of the latter, in the upper lobe of the left lung, was far removed from the hepatic mischief. Some general connection, yet unexplained, exists between jaundice and pneumonia. The fact, that many cases of pneumonia are preceded by hepatic disturbance and slight jaundice, has not escaped the notice of Dr. Parkes, who throws out the suggestion that the morbid liver may add something to the blood, which, in combination with a condition of hyperinosis, determines the localisation of the blood-disease, or excites by its irritating properties the inflammation of the lung. The case here recorded may help to furnish a clue to the true explanation of the relation in which these two diseases stand to each other, which must be followed out by extended observation.

The sudden disappearance of jaundice on the advent of pneumonia, and its return with the decline of the pulmonary inflammation, may perhaps be explained by the intimate dependence in function between the two organs affected.

If the case were one of hepatic catarrh, as supposed, the condition would be as follows. Bile or sugar would be produced in the liver, probably in normal quantities; but, while the latter would pass into the blood-vessels and lymphatics without difficulty, the former would be hindered from escaping into the intestine by the tumid condition of the lining membrane of the ducts, clogged perhaps with viscid mucus. Instead, therefore, of a portion only of the bile being absorbed in the intestine, the whole quantity would be absorbed in the liver and pass into the blood-current. According to Liebig, the normal portion of bile absorbed in the intestine passes out by the lungs as carbonic acid or water; but the excessive quantity taken into the blood in the present case would not be oxidised as rapidly as it was supplied, and jaundice would be the result. Upon the advent of pneumonia however, the condition would be changed. The febrile state has been shewn by Bernard to arrest the formation of hepatic sugar. There would now, therefore, be a deficiency in the regular supply of fuel from the liver, and at the same time greatly increased combustion. The increased heat must be kept up by fuel from some source; and it seems probable that the first material seized on would be the excess of combustible elements of the bile present in the blood, a certain quantity of which is normally consumed in this manner, before the tissues suffered, as they do when there is a similar failure in the supply of carbon from the liver in other states of pyrexia, or in starvation. Not only, however, would the elements of the bile be more readily burnt up, but their quantity would probably originally be less, since the materials furnished by the waste tissues of the body would be fully oxidised at once in the blood-current, and therefore not available for the formation of bile. Thus the jaundice disappeared suddenly; but, as the fever subsided, the liver resumed its sugar-making function, and, more materials from waste tissue escaping full oxidation, more bile would be secreted and pass into the blood-current, where it would not be oxidised so rapidly as before, and, accordingly, the jaundice gradually returned as the pneumonia declined.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

CASES OF INJURY OF THE EYE.

(Under the care of MR. HULME and MR. SPENCER WATSON.)

CASE I.—W. R., aged 16, applied on January 3rd, 1868, in consequence of having received, the day previous, a sweeping blow over the eye with an old broom, wielded by one of his companions. Enormous swelling and ecchymosis had ensued, and, as it was impossible to examine the eye, he was admitted, and ordered cold lotions and aperients. Four days afterwards, the eye having been found to be uninjured, the boy was made an out-patient. On his attending, the seventh day afterwards, the eye was thoroughly examined. Complete ptosis was present; and, on the lid being lifted up and the movements of the eye tested, it was found that, in addition to the paralysis of the levator palpebræ, the boy could not move his eye upwards; the pupil was fully, although irregularly, dilated, and quite insensible to light; he could, however, see to read No. 2 Jæger, at ten inches, well. Two small wounds, at the extreme edge of the tarsal cartilage, were observed, but these had united. The other movements of the eye were perfect. Under a tonic treatment, the boy has been gradually improving; the levator and superior rectus have almost assumed their normal actions; and the iris, though still sluggish in its motor power, shows considerable action in the stimulus of light. The paralysis in this case would seem to have been due to the extensive blood-effusion and consequent pressure deep in the orbit, about the region of the lenticular ganglion, involving that branch of the third pair which supplies the levator palpebræ and superior rectus; for, besides the injuries to the tarsal cartilage, there was no other external wound to be discovered.

CASE II.—J. W., aged 22, in the summer of 1859 received an injury to the right eye, from the explosion of a percussion-cap, a portion of which entered the cornea, and perforated the iris at its upper and inner part. An attempt at its removal was made by an eminent ophthalmic surgeon, but unsuccessfully, and it was deemed expedient to leave things alone.—He retained excellent sight with this eye, and recognised no difference between the vision of the two eyes, and the accident was almost forgotten by him.

In December 1867, he contracted syphilis, for which he was treated with mercury, etc. Three months afterwards, he was attacked with iritis of the left eye; all this time the vision of the right, or injured, eye remained perfect. The iritis yielded to treatment, and he regained good vision with that eye. About the end of April the sight of the right eye became defective, irritable; pain, photophobia, and all the symptoms of severe sympathetic inflammation set up to an extreme degree. This was subdued for a time by atropine and quinine; but as the vision of the left eye began to be impaired, and as recurrent sympathetic disease began to manifest itself in the right eye, and seriously affecting the patient's general health, he gladly availed himself of the proposition for its removal, which was at once effected. The following is the examination of the eye, by Mr. S. Watson, immediately afterwards.

Section across the equator, showed the retina to be healthy, and the vitreous body normal. The lens was cataractous, with traces of lymph in the ciliary region. There was perforation of the iris at the upper and inner part. The cataract was quite soft; the capsule of the lens was much thickened, and more so at one point along its margin, adherent to lymph-deposits on the posterior aspect of the iris. On removing the choroid and ciliary processes from their attachments, a small black foreign body was found lying loose in the sclerotic, about the ciliary region, as if it had fallen out of some portion either of the iris or the ciliary body. The pupil was partly closed by lymph and the iris adherent to the capsule.

The peculiarity of this case is the retention of good vision so long after the original accident, nine years ago. Evidently, the portion of the cap had become encysted, and for that period had failed to excite any irritation. Under the influence of the necessary treatment for the specific disease, the lymph appears to have become absorbed; and the foreign body, set free in the ciliary region, (a region, of all others, most prone to sympathetic action), had excited that destructive action which caused the loss of one eye and, for a time, seriously threatened the other.

NEWMARKET HOSPITAL.

UNUSUAL CASE OF DISLOCATION OF THE HUMERUS.

(Under the care of GEORGE B. MEAD, M.D., L.R.C.P. Lond.)

J. G., aged 75, was admitted into the second male ward on July 13th, 1868. About an hour before admission, he had been engaged pumping at an engine and stumbled; in falling, his hand was forcibly and violently upraised, from his effort to save himself by clinging to the machinery. When raised from the ground, he complained of violent pain in the right shoulder.

On examination, the natural roundness of the shoulder was found to be lost; the acromion process was unusually prominent, with well marked vacancy under it. The fibres of the deltoid were straight, flat, and very tense. In the axilla the head of the bone was distinctly felt, becoming very prominent on abduction of the elbow. The arm was elongated. The elbow could not be brought voluntarily to the side. Pressure inwards at the elbow caused great pain and sensation of numbness. There was loss of motion of the joint, and slight soft crepitus. The whole of the muscles about the joint felt remarkably rigid; those of the left side were quite natural.

The patient stated that it was of no use meddling with the shoulder, as it always had been out. On inquiry, it appeared that the old man, who had been a soldier, having served at Waterloo and in the French and Spanish campaigns, had, for some years acted as ferryman at "Five miles from anywhere," a ferry on the Cam, a few miles from Cambridge, much frequented by the students. As he was a jolly old fellow, and not at all averse to a drop, the Cambridge men were in the habit of playing all sorts of pranks with him. One favourite amusement with them was seizing him by the shoulders and, either singly or with assistance, throwing him over their heads into the water. On one occasion, after being treated rather more roughly than usual, considerable inflammation followed about the right shoulder. When it had subsided, which it did without any medical treatment, he found that the power of abduction had become very limited, and the action of the biceps was attended with severe pain. He could move the arm backwards and forwards, but was unable to raise the slightest weight; in short, the action of the joint was so interfered with that he was unable to row, and consequently lost his situation. This was about five years since.

Dr. Mead, having placed the patient in a proper position, proceeded with assistance to attempt the reduction by the heel on the axilla. The head of the humerus was with some difficulty raised from its position in the axilla, but it was found impossible, by any effort, to direct it into the glenoid cavity. It appeared to rise in the direction of the acromial end of the clavicle. The extreme hardness and rigidity of the muscles were also great obstacles to the reduction.

Under these circumstances, Dr. Mead requested the presence of Mr. Gamble, who coincided in the propriety of the renewal of the effort, the patient being placed under the influence of chloroform. The previous history of the joint was discussed. The patient, who appeared to think that it was an "old wound", and that nothing could be done for it, only very reluctantly consenting to the renewal of the attempt at reduction.

The patient was readily brought under the influence of chloroform. Mr. Gamble making extension with the heel on a pad in the axilla, Dr. Mead took charge of the head of the humerus, which, by a powerful effort, was raised from the axilla and again made its way to the acromial end of the clavicle. Dr. Mead then, with both fists doubled, pressed the head and upper third of the humerus downwards and outwards. The bone slowly moved in the desired direction, with a feeling to the operators as if the head travelled over two particularly prominent tubercles or rather ridges of bone, and passed into the glenoid cavity without any snap or jerk. The head of the humerus stood out more prominently under the acromion than natural. The usual bandages were then applied and rest enjoined. No inflammation followed; and fourteen days afterwards the bandages were removed, the head of the humerus remaining *in situ*.

The patient is now able to move his arm very much more freely than he had been for years, and is able to move his elbow nearly as high as his shoulder. He cannot, except with the assistance of the other hand, raise his hand to his head; but all the movements of the joint are much improved, and the power of raising the elbow is regained, though but partially.

What was the exact nature of the accident, or rather series of accidents, to which the joint had been subjected? Is it not probable that the first accident was dislocation upwards—a form described by Pirrie as being "so rare as not to be mentioned by many surgical authorities"? In a case reported by Mr. Soden of Bath, opportunity was afforded, after death, of examining an old injury of the right shoulder, caused by receiving the whole weight of the body on the elbow in falling backwards. After the subsidence of the inflammation, it was found, when the man stood erect with his arms dependent, that the bone appeared to be drawn too much up in the glenoid cavity. The capsular ligament was found to be but slightly ruptured; the tendon of the biceps was dislocated from its groove and placed on the lesser tubercle of the humerus. There is also at Aberdeen a preparation of a similar case. Sir W. Lawrence mentions cases where the head of the humerus was thrown out of the glenoid cavity towards the front, the bone lying between the subscapularis muscle and the surface of the scapula; and sometimes the head being found a little below the margin of the clavicle. In these cases, Sir William is disposed to think that the displacement was secondary; the head of the bone being in the first place thrown out of the articulation at the under part, towards the axilla, and that the action of the muscles subsequently carried it upwards and forwards into the neighbourhood of the clavicle.

In dislocations of orbicular joints, it is well known that the surface accommodates itself with remarkable facility to the orbicular head of the displaced bone; a new cavity being formed in which it can play, allowing movement of the limb with considerable facility. In the case of the humerus, the motion is never sufficient to allow the arm to be elevated sufficiently to reach the head. Obliteration, more or less complete, of the glenoid cavity also follows, and the head of the humerus undergoes partial absorption. It may be owing to the latter fact, that the prominence of the bone noticed under the acromion was not more marked; and it also may have rendered its return possible, to which otherwise the partial filling of the glenoid cavity might have presented an insuperable obstacle. There was a remarkable depression of a cup-shaped form to be distinctly felt under the clavicle; this is gradually becoming less distinct. Whatever may have been the original accident, it is satisfactory to find that the result bore out the propriety of the treatment, and that Dr. Mead and Mr. Gamble were fully justified in not resting satisfied with replacing the bone in the position which it had probably occupied prior to the second accident, but continued their efforts until it again occupied the normal position. Sédillot and Malgaigne sanction attempts at the reduction of dislocations being made after the lapse of one year; but the report of the Hôtel-Dieu in Rouen, as published in the *Parallèle de la Chirurgie Anglaise avec la Chirurgie Française*, gives an almost invariably unfavourable report as the result of the experience of French surgeons in the reduction of old dislocations.

Though it might have been unadvisable to interfere with the joint had no further dislocation occurred, yet, when the adhesions were ruptured by the second accident, the way was paved for the successful result attained.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 26TH, 1868.

THE CHEMISTRY OF DISEASE.

NO. I.

THE recent Report of the Medical Officer of the Privy Council contains, in an Appendix, a Report (chiefly introductory) by Dr. Thudichum on "Researches intended to promote an improved Chemical Identification of Diseases." At the very commencement of such an inquiry, it is evident that, in the study of so complex a subject as the chemistry of animals, and especially of man, too great pains cannot be taken to ensure accuracy in the solution of the intricate problems which may be presented. In inorganic chemistry, we have had much light thrown on the constitution and combinations of elementary bodies by numerous eminent men; of late years, too, organic chemistry has been in some of its branches rescued from that chaotic state in which it used to be found, but even here the advances have been made only in the simpler parts of the subject. The chemistry of the animal body has still remained in much darkness; not so much from want of zeal, as from the difficult nature of the observations, the numerous fallacies whch arise, and the imperfect instruments at our disposal.

If this be true of physiological chemistry, it will be readily understood that, when we apply the methods of investigation which we have at hand to the study of pathology, the fallacies are more numerous, and the obstacles to be overcome are sufficient to daunt the most energetic mind. Dr. Thudichum comments upon this in the first part of his report. He mentions the difficulties attending physiological chemistry—the chief of these being the changeable nature of the objects of investigation, and the complexity of the compounds formed by animals.

"Far more intricate is the problem of pathological chemistry. It deals with the deviations of these substances which are infinitely complicated, one penetrating the other. It deals with processes which (so far as we know them) are ever tending to become normal, and which (if they do not kill) terminate in definite times. The objects of the research occur for the most part only accidentally, fitfully, with all sorts of admixture, and not at such times and places as to favour investigation. . . . . . I define pathological chemistry as the science of the deviation of atoms from their normal function."

This is, perhaps, as much as can at present be said; but we can hardly call it a definition.

The first part is taken up with an abstract of elementary chemistry; and a page and a half is occupied with a list of the different elements, their symbols, dynamicities, and atomic weights, according to the modern system of notation. A definition of some of the terms used is given. "All atoms (*i.e.*, the smallest quantities of elements which can exist in chemical combination) possess chemism, polarity, and dynamicity.

"'Chemism' is the liability, or the cause of the liability, of matter to undergo interchange, movement, or combination, and to transform into chemical movement such physical influences as those of sunlight. Polarity, on the other hand, determines the relative place of each atom in the forthcoming combination, and fixes the molecule"—a molecule being the result of the combination of two or more atoms, and being the smallest quantity of an element or compound which can exist in the free state, or enter into combination. . . . . . "The 'dynamicity' of a given atom is the varying quantity of its combining power under varying conditions; for instance, the atom of iodine in monodynamic in hydriodic acid, where it combines with a single atom of monodynamic hydrogen; tridynamic in terchloride of iodine, where it combines with three atoms of tridynamic chlorine. The 'dynamis' is exercisable in multiple directions, but not separable as to seat."

In the second part, Dr. Thudichum gives a sketch of chemical physiology, and of its points of contact with pathology. A general survey of the chemistry of digestion, and particularly of the bile, is first taken. In speaking of Pettenkofer's test for the presence of biliary acids, by the production of a splendid purple colour with sugar and sulphuric acid, Dr. Thudichum remarks that other acids, such as lithofellic and cerebric, yield a similar result; but that by means of the spectroscope they may be distinguished, as the biliary acids give two bands, and the cerebric acid only one.

Some interesting observations are made with regard to the red blood-corpuscles. Cruorine or hæmatocrystalline is the name given to those crystals which may be obtained as tetrahedra, octahedra, or as feathery bodies from various animals; a solution of this in water, when examined by the spectroscope, shows obscuration of the blue and violet rays, and two bands of absorption in the yellow and green. When deprived of oxygen, as in venous blood, only one band is observable. Hæmatocrystalline can be split up into an albuminous body and hæmatine—the latter retaining the colouring power and iron. A knowledge of the optical and chemical phenomena of hæmatocrystalline and hæmatine is applicable to medico-legal research. A diminution of hæmatocrystalline constitutes chlorosis or anæmia; either as a specific ailment or as a sequence of chronic or acute diseases. The blood-corpuscles contain also cerebric acid; at least, it seems to be the same body as that which can be extracted from the brain.

Carbonic acid alters the colour and appearance of the blood-corpuscles, but the gas is in the serum only, partly in combination, and partly dissolved. Dr. Thudichum thinks that in cholera the serum of the blood, changed in constitution by the alvine flux (by which term we suppose he means the discharge *into*, and not merely that *from*, the intestines), exhausts water and other matters from the corpuscles, and the latter thereupon cease to carry oxygen; oxidation ceases, hence the temperature falls, and the algide condition is produced. Hæmatocrystalline also undergoes changes in yellow fever, intermittent hæmaturia, pyæmia, and under the influence of various poisons.

In the third part, Dr. Thudichum gives some illustrations of the tentative character of the researches which he has undertaken.

He first describes the results of his inquiries into tetanus. From the similarity of the symptoms to those of strychnia-poisoning, he was led to make a chemical examination of extracts from a variety of organs of six patients who had died of tetanus, with the view of ascertaining whether any substance similar to or identical with strychnia was formed in the body. In none of the cases was any such substance met with; but various matters were extracted, some apparently recognisable as known substances, while others seemed to be hitherto unknown.

Among the substances having known properties, was found one having many of the qualities of cerebric acid; but this compound is also present in various parts of the healthy body. On continued examination of the extracts from tetanus organs some fluorescent substances were found, but they did not respond to the same tests as "animal quinodine," which was lately announced by Drs. Dupré and Bence Jones to exist in all healthy animal structures. Dr. Thudichum gives an outline of some researches which he has been making on the chemistry of brain-matter; and remarks that his investigation of the question whether the fluorescent substance obtained from tetanus-organs has a causative influence in the production of the symptoms, or is itself a mere symptom or accident, is as yet incomplete. He remarks, however,

"That there is in tetanus the most rapid change which occurs in any disease whatever, is shown by the enormously high temperature which we observe in that disease. In no other disease does the body reach the temperature of 44 deg. centigrade (111 deg. Fahr.); and in those diseases in which we observe the next higher temperatures, namely, typhus fever, typhoid fever, yellow fever, and others, the lowest of 42 deg. (nearly 108 deg. Fahr.) is never exceeded without fatal results."

This part of the report contains also an account of researches on cruorine, with reference to the changes which take place in typhoid and other febrile processes.

The first thought which naturally arises on reading the report is, the mass of information afforded; the second thought is, whether all this can be depended upon. There is always a tendency, when a fact is observed, to rush into generalities, and deduce conclusions which often prove to be erroneous; and so, when we read of numerous compounds which are discovered, of difficulties easily removed, of rough places made plain, we may well be careful lest we have travelled too hastily over the ground, and missed some most important landmarks. Directly a certain reaction is produced, it is with some at once assumed that the substance presenting it exists in the body in that state, when its existence may be due to the reagents employed, or to chemical changes set up after removal from the body. As an example, we may refer to the chemistry of pus. "Pus", we are told at p. 178, "probably in its corpuscles, contains cerebric acid and cholesterine; the latter is deposited on standing." It is, however, a question whether cholesterine exists in newly formed pus; it is found in chronic abscesses, and after pus is taken from the body; but here the microscope shows the corpuscles disintegrated and fatty, and evidently chemical changes have taken place. A pus-cell passes through several phases of existence, and its whole history must be taken into account before any conclusions can be formed.

Pathological chemists—from the absorbing nature of the object of their study, and the earnestness with which they give themselves to its investigation—are very apt to endeavour to make chemical action explain every phenomenon, and to ignore other forces which act on the system.

The history of an animal being is the aggregate history of its component parts. In the early formation of a cell, phenomena—movements, subdivision, nutrition—occur, which cannot be entirely explained by chemistry. When, however, the cell becomes older, and is moved farther and farther from its nutrient centre, we find evidence that physical and chemical changes have been taking place; an epithelial cell, newly formed, is very different from the horny substance which it afterwards becomes. A bone in its cartilaginous state is the seat of active growth; and, as it developes, the parts farthest from the cells are the seat of calcareous deposits due to chemical change; but surely we should much err if, in looking at the history of bone, we attended merely to the chemist's view of its formation; nor should we be less wrong if we saw it only with the eye of a microscopist. In truth, we must take a wide view of the phenomena of the living body; and, if we would understand them, we must abstain from over-rating one branch of science and ignoring the other. Chemistry will explain an immense deal of what is now mysterious, but not all.

Dr. Thudichum, in the beginning, mentions the imperfect nature of some of his observations. He says: "If the researches should appear to spread over a very large area, it must be remembered that none claim to be considered complete which are not expressly put forth as such. And the method upon which all the researches are conducted is to be judged only from the finished portions; it being implied that a similar completion is to be given in the future to subjects appearing at present only in outline."

It may be well, for the purpose of shewing the wide range of the application of chemistry to pathology, and the difficulties of the investigation, that a report which professes to be chiefly introductory should contain an outline of all the researches undertaken, whether the results be determined or not. But, as regards future reports, we are inclined to think it advisable that what is reported, however little, should be in itself as complete as it can be made—all unfinished investigation being held back. We should make less apparent advance; but our knowledge would rest on a surer basis.

In a future article, we shall continue our notice on other parts of this report.

M. Broca has been appointed Professor of Clinical Surgery in the Faculty of Medicine in Paris.

The *Bolton Chronicle* says that a cheque for £1,000 will be granted to the Bolton Infirmary and Dispensary after October 6th by the Mansion House Relief Committee, out of the balance remaining of the Cotton Relief Fund.

THE QUEEN'S HEALTH.

We regret to say, that the paragraph in last Saturday's *Lancet* respecting the health of Her Majesty has very little foundation. The health of the Queen has, we hope, received some benefit from the change of air and scene, and rest from her onerous public duties; but, while Her Majesty will continue, as heretofore, to regulate public business, the Queen will not, we fear, be able to bear the fatiguing excitement of a lengthened residence in London, and of the continued receptions attendant on such circumstances.

THE PRINCE OF WALES AT GLASGOW.

His Royal Highness the Prince of Wales has consented to lay the foundation stone of the University of Glasgow. It is expected that His Royal Highness will visit Glasgow for that purpose on October 8th.

THE NEW INFIRMARY, EDINBURGH.

Numerous and influential local committees are being formed in various parts of the south of Scotland to carry out house to house visitation, with the view of obtaining subscriptions towards the erection of the new Infirmary building. A considerable sum, it is expected, will be raised by this means.

THE NEW ST. THOMAS'S HOSPITAL.

The hospital walls are considerably advanced. The long range of buildings in the rear is progressing rapidly; and the separate blocks of the hospital proper are now beginning to assume large proportions, and give one some idea of the magnificent building which is in future to adorn the south bank of the river.

THE NEW WING AT ST. GEORGE'S HOSPITAL.

The new wing of this hospital is now completed. It is a lofty block, consisting of five floors, each communicating and on a level with the corresponding floor in the old hospital. This wing is also provided with a large, open, and well-lighted staircase. The first four floors contain each one ward of twelve beds. The wards are large, cheerful, and well-ventilated. They are lighted from both sides. The windows are on the Middlesex Hospital pattern, which had previously, however, been partially adopted by the hospital. At the further end of each ward are a bath-room and lavatory in one corner, and water-closet and urinal in the other. The ward is heated by a large stove in the centre. A sister's room and scullery are attached to each floor. On the fifth floor are the nurses' dormitories, seven in number; they vary in size, and will contain two or three beds each.

THE SOCIAL SCIENCE ASSOCIATION.

The twelfth annual meeting of the National Association for the Promotion of Social Science will commence in Birmingham on Wednesday next, September 30th, and will terminate on October 7th. The Earl of Carnarvon is the President of the Association for the year: and Dr. Rumsey will preside in the Section of Health. In this section, the following questions will be specially discussed. 1. Can the public Hospitals and Dispensaries of this country be so administered as to conduce more to the welfare of the community? 2. What ought to be the functions and authority of Medical Officers of Health? 3. What is the relation of the Water Supply in large towns to the Health of the Inhabitants?

IMPROVEMENTS AT THE MIDDLESEX HOSPITAL.

THIS hospital has been for many months undergoing a thorough repair. The ventilation, hitherto a marked feature of the hospital, has been still more improved by the adoption of a very ingenious ventilator of Dr. Andrew Stephens, the resident medical officer, the chief feature of which is, that the air enters from above and from both sides, but not in front. The Roman cement covering the front of the hospital, which had begun to fall off in large pieces, has been replaced by the more durable Portland cement; and the face of the old clock has been enlarged and illuminated. The Home for Nurses, which we lately noticed, is being commenced, and will be pushed forward as fast as possible.

SUICIDAL POISONING.

DR. JULIUS LEVY writes as follows to the *Times*.

"The following case came recently under my personal observation. A woman, supposed to be in a fit, was brought to a metropolitan hospital. The medical officer discovered that she was suffering from poison, which he removed from her system. The patient being cured, she confessed having taken laudanum with suicidal purpose. The hospital doctor sent for a constable, and desired him to take the woman into custody. The policeman declined to take the charge on his own responsibility, requiring that the physician should give her in charge; and alleging as some reason for this course, 'that the charge came from a public institution.' The doctor declined to consider himself a public prosecutor, deeming such conduct no part of his professional duty. In these cases of poisoning, the practitioner cannot decide whether the poison has been administered by another, or drunk by accident, or imbibed during a fit of insanity, or swallowed with suicidal intentions. The reform that I would venture to suggest is, that the law should give to the medical man the power, by stating the fact of poison being found in the system of a person, to require the case to be thoroughly investigated by the legal authorities."

The want of a public prosecutor, on which this case hinges, has often been felt and expressed. This case affords another instance in point.

THE LEPERS OF JERUSALEM.

WE have been favoured, through the courtesy of Dr. Benisch, the editor of the *Jewish Chronicle*, with two manuscript reports by Dr. London, chief Physician of the Rothschild Hospital in Jerusalem. They are for the two quarters, ending February 29 and May 31 of the present year. We extract from them some notes of interest relating to the lepers of Jerusalem, of whom it seems that not one is an Israelite. Dr. London says: I find it remarkable in a medical, as well as in a social point of view, that, among the numerous patients whom I have hitherto had an opportunity of observing in Jerusalem, I have not observed one case of *lepra orientalis*. Although we find leprosy *(Tsaraath)* fully mentioned and described in the Holy Scriptures, in the 13th and 14th Chapters of Leviticus, and although this must have been a disease of very frequent occurrence among the Jewish people in the time of Moses, so that, by its periodical spread, it had a marked influence on the legislation and customs of ancient and modern people; and although the account given of oriental leprosy in the writings of Hippocrates and Celsus agrees with the description of *Tsaraath* in the books of Moses, and even more recent medical writers describe a Mosaic leprosy *(Alba Hebræorum*, *Baras* of the Arabians), I have not found, in the lepers' huts in the neighbourhood of the gate of Zion, a single Israelite suffering from this terrible disease. Careful researches instituted by me have shewn that, even in the four largest towns of Palestine, which are inhabited by Israelites—Jaffa, Hebron, Tiberias, and Saphet—there is not a single Israelite suffering from oriental leprosy. I have found in the leper-house at Jerusalem almost all the forms of lepra; viz., 1, *lepra herpetica*, appearing in the form of vesicles and pustules; 2, *lepra tuberculosa*, in the form of reddish blue knobs of about the size of a nut; 3, *lepra squamosa*, in the form of whitish yellow round scaly scabs; and finally, 4, *lepra ulcerosa*, characterised by serpiginous ulcers. From my frequent visitation of the lepers' quarter, and a careful investigation of the patients there admitted, I am unable to agree with Dr. Drunner that many sufferers from syphilis and elephantiasis are scattered by mistake among the patients who have leprosy. Unfortunately, through the want of public sanitary administration, these miserable creatures, the lepers, excluded from human society, languish pitiably in their huts. Truly the English mission in Jerusalem, which spends large sums of money, would do a work of benevolence, and one conducive to humanity and civilisation, if it would attend to the numerous unhappy lepers.

BOYS WHO SMOKE.

DR. DECAISNE (*Bull. Général de Ther.*), in the course of investigations on the influence of tobacco on the circulation, has been struck with the large number of boys, aged from nine to fifteen years, who smoke; and has been led to inquire into the connection of this habit with impairment of the general health. He has observed 38 boys, aged from 9 to 15, who smoked more or less. Of these, distinct symptoms were present in 27. In 22, there were various disorders of the circulation—*bruit de souffle* in the neck, palpitation, disorders of digestion, slowness of intellect, and a more or less marked taste for strong drinks. In 3, the pulse was intermittent. In 8, there was found on examination more or less marked diminution of the red corpuscles; in 12, there was rather frequent epistaxis; 10 had disturbed sleep; and 4 had slight ulcerations of the mucous membrane of the mouth, which disappeared on ceasing from the use of tobacco for some days. In children who were very well nourished, the disorder was, in general, less marked. As to the ages, 8 of the boys were from 9 to 12 years old; 19 from 12 to 15. The duration of the habit of smoking was: in 11, from six months to a year; and in 16, more than two years. The ordinary treatment of anæmia in general produced no effect as long as the smoking was continued; but, when this was desisted from, health was soon perfectly restored, if there were no organic disease.

HOW TO STOP THE ADULTERATION OF MILK.

DR. CHARLES A. CAMERON, Professor of Hygiene in the Royal College of Surgeons, and Analyst to the City of Dublin, writes to us:—

I am very glad to learn that Dr. Lankester is analysing the milk supplied by the London dairymen. For some time past, the milk on sale in this city has been examined on a pretty large scale. The officers of the Lord Mayor purchase samples, and submit them to me for examination. If I find them to be adulterated, the vendors are summoned before the Lord Mayor, who invariably fines them. About sixty convictions have taken place during the last twelve months. At first, the cases of adulteration were very numerous and very bad. In fact, there was hardly any pure milk on sale; and the proportions of added water varied from 16 to 60 per cent. Now, a large proportion of the samples analysed are found to be pure; and the amount of water in excess of the normal proportion of that constituent is never more than 25 per cent.

I have never found any foreign matters in Dublin milk. The only frauds practised upon it are the addition of water and the subtraction of cream.

In testing milk, the lactometer cannot be relied upon; for, although its indications are in general pretty accurate, they are often far from the truth. I have found some pure samples of milk to give only 7 deg. of cream; whilst, on the contrary, a mixture of 2 milk + 1 water, has yielded 13 deg. of cream in the lactometer.

The general price of milk here is 1s. per gallon; but some dairymen charge 1s. 4d., often without giving a better article.

NEW YORK PHYSICIANS' MUTUAL AID ASSOCIATION.

AN organisation under the above title has been started in New York, the object being to afford relief to the heirs of its deceased members. The plan is, that upon the death of any member of the Association, all the other members shall be assessed one dollar each, the sum total thus collected to be applied for the benefit of the heirs of the decedent. The expenses of the Association are to be paid from the initiation fees of the members—two dollars in each case. Any regular member of the profession in actual practice, or engaged in teaching medicine, may become a member, with the assent of the Board of Trustees, by paying the initiation fee and signing the Constitution.

WATER-SUPPLY OF NEW YORK.

THE new water-supply to New York, averaging 60,000,000 gallons *per diem*, or 60 gallons for each inhabitant, will prove of immense benefit to the city. Instead of containing 20 to 125 grains of solid matter per gallon as before, it will now be reduced to about four grains per gallon.

LIBERALITY.

THE *Union Médicale* says that Mustapha Fazil Pacha has secured an annual pension of 18,000 *francs* (£720) to the widow and eight children of his late medical adviser, Dr. Diamanti, Professor of Therapeutics in the Cairo School of Medicine.

CRIMINAL ABORTION.

AT a recent meeting of a medical society in the State of Illinois, one of the members read a paper on Criminal Abortion, in which he said: "The subject of criminal abortions is worthy the consideration of our national, state, and county medical societies. We ask the members of this society, if they have not often been importuned, and large fees offered, if they would procure abortions, and thus hide the shame of unfortunate young girls. Every physician should resolve not only to discourage this crime, but in all cases where the evidence is positive, expose irregular doctors, druggists, and female accoucheurs who engage in the business. Every true physician should be upright, just, and honest, and thus secure an honourable position amongst all good citizens." He further stated, that the country was flooded with journals, reviews, and circulars, in which plans were proposed by which conception could be prevented, and abortions procured without danger to the female. He wanted it distinctly understood by all, that the medical profession was opposed to those who thus operate and aid in depopulating the earth. This subject was fully discussed by most of the members; and resolutions for inquiry into cases of abortion were unanimously adopted.

REGULATION OF THE MEDICAL PROFESSION IN CANADA.

THE *Canada Medical Journal* recommends strongly that an uniform law should be introduced, bearing on the practice of the profession of medicine in Canada. "We fear that perfect uniformity is not attainable, inasmuch as all questions pertaining to education are left in the hands of the local legislatures. We would wish to see a medical act introduced before the Dominion Parliament, having a similar tendency and bearing to that which is in force in Great Britain. A general council of medical education and registration for the Dominion, with powers of supervision to inspect the method of teaching and examination in all our educational institutions, would do more to elevate the character of those institutions and their various exercises, than a continuance of the present varied system of licensing. The General Council should have the power of recommending for registration all graduates or licentiates of those universities or colleges whose curriculum and method of examination shall be deemed sufficient. They should not be an examining body, but a corporation holding a higher office than that of either teacher or examiner. All colleges and universities should examine their own pupils; but if their curriculum or examinations are deemed by the Medical Council to be insufficient or irregular, their graduates or licentiates should not be entitled to enregistration. The Canadian colleges and universities are seeking recognition from the General Medical Council of Great Britain, and the chief obstacle to that end is the want of supervision. We doubt not that, with a general law, which should be operative in all the provinces, giving us a council with similar powers and authority, such supervision and control would be deemed sufficient by the home authorities, and we would at once secure to our graduates and licentiates that desirable recognition which would place our institutions, educationally, on a par with those in the mother country. The time has arrived when we should come out from our shell, and make known to our friends on the other side of the Atlantic that we have in Canada the men and the means of imparting knowledge in our colleges equal to some, at least, of the institutions of Great Britain, and, furthermore, that our test of proficiency in our students will bear the light of day."

THE NEW MEDICAL SCHOOL BUILDINGS AT ST. GEORGE'S HOSPITAL.

THE new buildings of the St. George's Hospital Medical College are now finished. We formerly noticed the plan adopted by the Board and Medical Committee, and the progress of the works: and we now propose to give a short description of the building in its complete state.

It is situated in the rear of the hospital, partially embraced by the new wing, and is built on a piece of ground presented by the Marquis of Westminster on the west side of the court-yard. It forms a low square block, built on a level considerably below that of the hospital. This has admitted of more lofty rooms being built without obstructing the view of the houses in the immediate neighbourhood—a point which had to be carefully studied by the architect. The entrance is from the court-yard behind the hospital. On entering the building, the central hall is reached by two flights of steps. This hall is large, airy, and well lighted by skylights; as, indeed, are all the rooms. The walls are adorned with busts of John Hunter and Hawkins on one side, and Brodie and Baillie on the other. The hide of the famous cow from which Jenner obtained his first vaccine lymph is suspended on the wall. The hall leads, at the further end, into the museum, a large and handsome room, surrounded by a gallery, and with curator's and several smaller rooms attached. A bust of Brodie has been placed here also. There is now ample room for the fine pathological collection, which has hitherto been hidden from view in the less commodious museum of the old school. It has been catalogued by Mr. Holmes, and arranged by Mr. Hawkins, who has taken great pains to make it as useful as possible to the school. On the right of, and entered from, the hall, are the lecture-room and chemical laboratory. The lecture-room is capable of containing a very large audience. A fair medallion of John Hunter adorns the wall. The laboratory is rather small, but well arranged. A private room for the lecturer is attached. The left of the hall is formed by the north wall of the dissecting-room. This room, however, is entered from the left of a passage which runs across the entire building at right angles to the hall on entering the school. The dissecting-room is capable of containing a considerable number of tables. The architect appears to have succeeded in ensuring good ventilation; the foul air being carried away by means of a large pipe, carried up the wall of the new wing. On the wall at the further end of the room, and close to the ceiling, is the dark and dismal-looking bay-window of what we were told was the demonstrator's room. This room, or rather *cul-de-sac*, is built aloft, and entered by a staircase from the dissecting-room. It would, to most unprofessional people, suggest dark deeds and all sorts of dreadful things, increased tenfold by the dismal-looking bay-window. It is a perfect eyesore, and entirely out of keeping with the open and cheerful character of the whole building. There is another small room attached, for injecting the bodies. Opposite the dissecting-room door, on the other side of the passage, are two rooms, one of which will be used as a luncheon-room for students. To the right of the passage, again, is the chemical lecture-room, capable of containing about thirty or forty students. The passage then winds round the back of the large theatre, behind which are small compartments for lockers, cloaks, etc. It then opens on the left into the library—a lofty and cheerful room, situated between the lecture-room and chemical laboratory, and with an ample supply of books, and medical and other periodicals. The floor is of tasteful tessellated bricks. At hand are lavatories and other conveniences. The passage then continues through the curator's room into the museum.

Altogether, we congratulate St. George's Hospital on the general success of the building. It was partially in use during the summer session. It will, however, be formally opened on Thursday next, at 2 P.M., with an introductory address by Dr. Acland of Oxford, and by a dinner at the Grosvenor Hotel in the evening, when Mr. Charles Hawkins, treasurer of the hospital, will take the chair.

MEDICAL SCHOOLS AND HOSPITALS IN IRELAND.

University of Dublin: School of Physic.—Regius Professor of Physic, Dr. W. Stokes, F.R.S.; Regius Professor of Surgery, Dr. R. Adams; University Professor of Anatomy and Surgery, Dr. B. G. M'Dowel; University Professor of Chemistry, Dr. J. Apjohn, F.R.S.; University Professor of Botany (Vacant); Professor of Surgery in Trinity College, Dr. R. W. Smith; University Anatomist, Dr. E. H. Bennett; University Lecturer in Operative Surgery, Dr. R. G. Butcher; University Examiner in Surgery (1868-9), Dr. J. H. Wharton; King's Professor of Institutes of Medicine, Dr. R. Law; King's Professor of Practice of Medicine, Dr. W. Moore; King's Professor of Materia Medica and Pharmacy, Dr. Aquilla Smith; King's Professor of Midwifery, Dr. E. B. Sinclair; Professor of Medical Jurisprudence, Dr. R. Travers. —The Winter Session will commence on October 1st, by the opening of the Dissecting-Room. Lectures will commence on November 2nd. Practical Anatomy—Dr. Bennett; Tues. Thurs. Sat., 12. Anatomy—Dr. M'Dowel; Tues. Thurs. Sat., 1 P.M. Chemistry—Dr. Apjohn; Thurs. Fri. Sat., 2 P.M. Surgery—Dr. R. W. Smith; Mon. Tues. Wed., 2 P.M. Medicine—Dr. Moore; Mon. Wed. Fri., 3 P.M. Midwifery—Dr. Sinclair; Mon. Wed. Fri., 4 P.M. Heat, Electricity, and Magnetism—Mr. Galbraith; at the commencement of each term. The Courses consist of 56 Lectures each; attendance on at least 42 Lectures in each Course is required. Two Medical Scholars are elected annually by the Board of Trinity College, at the Previous Medical Examination, held at the end of June; subject to conditions stated in the College Calendar. Each Scholarship is worth £20 per annum, and is tenable for two years. The Professors of the School of Physic give Three Exhibitions annually, amounting altogether in value to £40; subject to conditions prescribed by the Professors.

School of Surgery, Royal College of Surgeons of Ireland.—The Dissecting-Rooms open on Oct. 1.—The Winter Courses will commence on Monday, October 26th, as follows. Anatomy and Physiology—Dr. Mapother; daily, except Sat., 2 P.M. Descriptive Anatomy—Dr. Beavan and Mr. Morgan; daily, 12 noon. Surgery—Mr. Hargrave and Mr. Hughes; Tu. Thurs. Sat., 3. Practice of Medicine —Dr. Benson; Mon. Wed. Fri., 3. Chemistry—Dr. W. Barker; Mon. Wed. Fri., 1. Midwifery—Dr. Sawyer; Mon. Wed. Fri., 4.—The Dissections are under the direction of the Professors of Descriptive Anatomy, assisted by the Demonstrators, Mr. Croly, Dr. Stoney, Dr. M'Alister, Dr. Hewitt, Dr. Roe, Mr. S. Hewitt, Dr. Stoker, Mr. Kelly, and Mr. Scott.—A public Course of Lectures on *Comparative Anatomy* is delivered by the Professor of Anatomy and Physiology at the commencement of the Session, and additional Lectures on the same subject are delivered at intervals during the Winter. Practical instruction in *Operative Surgery* is given by the Professors of Surgery separate from the Surgical Lectures.—The Professor of Chemistry receives Operating Pupils into the Chemical Laboratory.—*Prizes* in Anatomy, Physiology, and Surgery, will be given to Students of each year. In the Summer Session, the following courses will be delivered. Materia Medica, Mr. Macnamara; Medical Jurisprudence, Dr. Geoghegan; Botany, Dr. Minchin; Practical Chemistry, Dr. W. Barker; Hygiene, Dr. Cameron. Fee for each Course, £3: 3. Comparative Anatomy and Hygiene are free.

Carmichael School of Medicine.—This School is in the immediate vicinity of the Richmond, Whitworth, and Hardwicke Hospitals, and is connected with these Institutions, as well as with the Mater Misericordiæ and Jervis Street Hospitals, by its Teachers. The student is thus furnished with every facility for completing his professional education. The Winter Courses of Lectures will commence the first week of November. The following Lectures will be delivered. Surgery, and Operative Surgery —Mr. W. Stokes; Medicine—Dr. Cruise and Dr. Gordon; Anatomy and Physiology—Mr. Curran; Anatomy, Descriptive, Practical, and Surgical—Dr. Corley; Chemistry—Dr. Davy; Midwifery and Diseases of Women and Children—Dr. Jennings. Dissections are superintended by the following gentlemen, who attend constantly in the rooms. Mr. Curran, Dr. A. H. Corley, Dr. Purser, Mr. Shaw, Mr. T. W. Madden, Mr. R. St. J. Mayne, and Mr. P. Conolly. The Dissecting Rooms are open on October 1st. The Museum comprises a valuable collection of Anatomical and Pathological preparations. There is also an extensive Museum of Materia Medica. *Carmichael Premiums*, the value of £60, are awarded yearly, each year's class having its own Premiums allotted. The *Mayne Scholarship* will be awarded for proficiency in purely Practical Medicine, Surgery, and Anatomy, as tested by Clinical Examination, Operations, and Dissections. During the Session, Mr. Stokes will give Courses of Demonstrations and Illustrations in Operative Surgery. In the Summer Session, the following lectures will be delivered. Botany —Dr. Campbell; Materia Medica and Pharmacy—Dr. Frazer; Medical Jurisprudence—Dr. O'Reilly; Practical Chemistry—Dr. Davy. *Carmichael Premiums* will be awarded in each of these classes also, at the termination of the Session.

Catholic University, Dublin.—The following Courses will be delivered during the winter. Anatomy and Physiology—Dr. Hayden and Dr. Cryan; Surgery—Mr. Tyrrell; Medicine—Dr. Lyons; Chemistry—Dr. Sullivan; Midwifery—Dr. Byrne; Practical Anatomy, with Demonstrations—Dr. Hayes, Dr. Fennelly, and Dr. Laffan. Fee for each course, £3: 3. Two Exhibitions, each of the value of £20, are offered for competition in the combined subjects of Physiology, Chemistry, and Botany, Surgery, Medicine, and Midwifery, respectively. There is in connection with the School, a College, with a Library of select medical class-books for the accommodation of medical students.

Ledwich School of Surgery, Dublin.—The Lectures will be delivered by the following Teachers: Anatomy and Physiology, Mr. E. Ledwich and Mr. T. P. Mason; Surgery, Mr. James H. Wharton and Mr. J. K. Barton; Practice of Medicine and Pathology, (vacant); Midwifery, Dr. John Ringland; Materia Medica, Dr. B. F. M'Dowel; Medical Jurisprudence, Dr. R. Travers; Botany, Mr. T. D. T. Maunsell; Chemistry, Dr. C. Cameron; Demonstrations and Descriptive Anatomy, Mr. S. Bright, Mr. R. Glanville, Mr. M. J. Kilgariff, Mr. W. H. O'Leary, and Mr. W. H. Corry.—All the Courses of Lectures required by the various Licensing Bodies to entitle the Student to present himself for Examination are delivered in the Theatre of the Institution, and are fully recognised.—The School is in a central situation, and in the immediate vicinity of four great Medical and Surgical Hospitals.—Demonstrators will be present in the Dissecting-rooms at all hours.—At the termination of the Session, Prizes will be awarded to the best Answerers.

Dr. Steevens's Hospital and Medical College, Dublin.—Clinical Instruction is given at the Hospital by Mr. Wilmot, on Saturday at 10; and at 8.30 A.M. as follows: Dr. Freeke, Monday; Mr. Colles, Tuesday; Mr. Hamilton, Wednesday; Mr. M'Donnell, Thursday; Dr. Burke, Friday; Dr. Hardy, Saturday.—Operations at 10 on Saturdays.—Pathological Demonstrations by the Lecturers as opportunity offers.—The following Lectures are given in the Medical School: Anatomy and Physiology, and Morbid Anatomy, Mr. Hamilton, daily, except Saturday, 10 A.M.; Practice of Medicine, Dr. Freke, Monday, Wednesday, Friday, 11; Surgery, Mr. Colles, Tuesday, Thursday, Saturday, 11; Midwifery and Diseases of Women and Children, Dr. Hardy, Monday, Wednesday, Friday, 12; Chemistry, Dr. Aldridge and Dr. Cameron, Tuesday, Thursday, Saturday, 12; Descriptive Anatomy, Mr. M'Donnell, daily, 1 P.M.; Dissections, superintended by the Lecturers on Anatomy and the Demonstrators, 7 A.M. to 8 P.M.—A perpetual Fee of £78 15s., payable in two instalments, enables the Student to attend all the Lectures and Hospital Practice required by the Colleges of Surgeons, Halls, and the Public Service.—Each Course of Lectures, £3 3s.; Hospital Practice, 6 months, £7 7s.; 9 months, £9 9s.; Dresserships, winter 6 months, £21; summer 6 months, £15 15s.—The Reading Room and Museum are open daily.—There is also a lending Library.—Arrangements have been made with persons of respectability to provide pupils with lodgings in the neighbourhood, on reasonable terms.—Senior, Middle, and Junior Exhibitions are awarded, at the end of the Session, for general proficiency.—There are also two Prizes, each £10 10s., for the best reports of the cases in the Hospital during the Session.—Two Midwifery Assistants are each year selected by competitive examination; salary, £30 *per annum*.—There is accommodation in the Hospital for two Medical and six Surgical Resident Pupils.

Adelaide Hospital, Dublin.—*Physicians*—Dr. Henry H. Head; Dr. James Little. *Surgeons*—Dr. A. J. Walsh; Dr. J. K. Barton; Mr. B. Wills Richardson; Dr. A. Macalister. *Ophthalmic and Aural Surgeon* —Dr. J. H. L. Stoney. *Assistant-Physician*—Dr. W. G. Smith.—Attendance daily: Surgeons, 9 to 10 A.M.; Physicians, 10 to 11.—This Hospital contains 100 beds. There are two wards for infants and children, and a detached Fever Hospital. The Students are instructed in the use of the Stethoscope, Laryngoscope, and Microscope. There is a complete annual Course of Lectures on Diseases of the Eye and Ear, for which a special certificate is given. Two Resident Pupils are selected half-yearly from the Students. Certificates of attendance upon this Hospital are fully recognised by all the Licensing Bodies. *Fee*—Nine Months, £8: 8; Six Months, £6: 6; Summer Three Months, £3: 3; Perpetual Pupil (paid at entrance), £21.

City of Dublin Hospital.—*Physicians*—Dr. C. Benson; Dr. T. E. Beatty; Dr. J. H. Benson; Dr. D. B. Hewitt. *Surgeons*—Dr. W.

Hargrave; Dr. Thomas G. Geoghegan; Mr. Jolliffe Tufnell; Dr. H. G. Croly. *Ophthalmic Surgeon*—Dr. A. H. Jacob. *Consulting Physicians*—Professor Apjohn and Dr. C. P. Croker. *Consulting Ophthalmic Surgeon*—Dr. A. Jacob. *Dental Surgeon*—Mr. F. McClean, junr.—The Clinical Lectures will be delivered on three days in the week by the Physicians and Surgeons; and Special Courses on Diseases of the Eye will be given by Dr. Jacob. The certificates of attendance are received as qualification by all the Colleges, Halls, and Boards.

Coombe Lying-in Hospital.—*Masters*—Dr. Ringland and Dr. Sawyer. *Assistant to Masters*—Dr. G. H. Kidd. *Supernumerary Assistant*—Dr. T. P. Mason. *Consulting Physicians*—Sir D. J. Corrigan, M.D., Dr. C. P. Croker, Dr. J. T. Banks, Dr. A. Hudson. *Consulting Surgeons*—Dr. J. G. Wilmot, Dr. G. H. Porter, Mr. R. G. H. Butcher, Dr. J. S. Hughes. *Consulting Accoucheurs*—Mr. H. Carmichael, Dr. W. Jameson, Dr. F. Churchill, Dr. E. B. Sinclair. *Medical Officer of the Dispensary*—Sir W. Carroll, M.D. *Locum tenens of Dispensary Medical Officer for* 1868—Dr. Quinlan.—The Hospital contains 40 beds; and clinical instruction is given twice weekly. Clinical Clerks are selected half-yearly. Prizes in Practical Midwifery are given at the end of each session. There is accommodation for eight intern pupils. *Fees*—Hospital Practice, intern pupils, 6 months, £10 10s.; extern pupils, £4 4s.—including Clinical Lectures in both cases. Registrar's fee for Diploma of Hospital, 10s. 6d.

Jervis Street Hospital is one of the oldest of the Dublin Infirmaries. Clinical lectures are delivered by Drs. McSwiney and Martin, and Messrs. O'Reilly, Stapleton, Hughes, Forrest, Corley, Meldon, and White.

Mater Misericordiæ Hospital, Dublin.—*Physicians*—Dr. J. Hughes; Dr. Thomas Hayden. *Surgeons*—Mr. P. O'Reilly; Dr. F. R. Cruise; Mr. H. Curran; Dr. H. J. Tyrrell.—The portion of this Hospital now completed contains one hundred beds. Two Clinical Lectures will be delivered in each week, in addition to the daily bedside instruction given by the Physicians and Surgeons. Connected with the Hospital is an extensive Dispensary. Special instruction will be given on Diseases of the Eye, and on the Use of the Stethoscope, Microscope, Laryngoscope, Endoscope, etc. Two Resident Pupils are elected twice yearly. Certificates of Attendance upon this Hospital are recognised by all the Licensing Bodies.—*Terms*—Nine months, £8 : 8 ; six winter months, £6:6; three summer months, £3:3. Instruction in Compounding Medicine is given in the Pharmacy.

Meath Hospital and County Dublin Infirmary.—*Physicians*,—Dr. Stokes, University of Dublin; and Dr. Hudson. *Surgeons*—Dr. H. Porter; Dr. M. H. Collis; Mr. J. H. Wharton; Dr. P. C. Smyly; Dr. Rawdon Macnamara; Dr. Strange. Clinical Lectures, of which four will delivered weekly, and instructions in Medicine and Surgery, will be given on alternate days. The Physicians and Surgeons will visit the Hospital at 9 A.M. The Hospital, which contains 120 beds, and to which an extensive Dispensary (open daily) and Lending Library are attached, is within a few minutes' walk of the College of Surgeons and the Ledwich School of Medicine. There is an additional Ward for the reception of Children. Certificates of attendance at this Hospital are recognised by all the Universities, Colleges, and Licensing Bodies in the United Kingdom. Four Prizes will be given at the termination of the Winter Course in the respective classes. The office of Resident Pupil is open to Pupils as well as Apprentices.

Mercer's Hospital, William Street, Dublin.—Winter Session, 1868-9.—Visited punctually at 9 A.M. each day.—*Physicians*—Dr. T. P. Mason; Dr. H. Eames. *Surgeons*—Mr. Ledwich; Mr. E. S. O'Grady; Mr. J. Morgan; Dr. Benjamin F. McDowell. *Consulting Surgeon*—Mr. A. Read.—Two new wards for the reception of Fever and Contagious Diseases are open; and its Chronic Wards are filled with patients from the Dispensary. Systematic Clinical Lectures and catechetical instruction will be given. Dressers will be selected from the most attentive of the Students; and the Dispensary affords ample opportunities of acquiring dexterity in manual operations in Minor Surgery. The appointment of Resident Pupil is open to any Student through the medium of a Competitive Examination, and at the termination of his office he will be entitled to a Special Certificate, should his conduct have met with the approval of the Physicians and Surgeons. —*Terms of Attendance*—Six months, £6 : 6 ; nine months, £8:8; perpetual pupils, £21.

Richmond, Whitworth, and Hardwicke Hospitals, Dublin. —*Consulting-Physician:* Sir D. J. Corrigan, Bart., M.D. *Physicians:* Dr. J. T. Banks; Dr. B. G. M'Dowel; Dr. S. Gordon; Dr. R. D. Lyons. *Surgeons:* Dr. R. Adams; Mr. J. Hamilton; Dr. R. W. Smith; Mr. William Stokes.—These Hospitals contain 312 beds; 110 for Surgical, 82 for Medical, 120 for Fevers and Epidemic Diseases. The Truss Establishment, for the distribution of trusses to the ruptured poor of Ireland, is connected with these Hospitals. There is an extensive Pathological Museum, containing above 4,000 drawings, casts, and preparations. There is also a well-selected Medical and Surgical Lending Library. Medical and Surgical Clinical Lectures are delivered in the Hospital Theatre, and Bed-side Clinical Instruction is given daily by the Physicians and Surgeons. There will be a distinct Course of Lectures and Clinical Instruction on Fever. Mr. Purser will give Microscopical Demonstrations, and Mr. Wilson will give Instruction in Diseases of the Eye, and the Use of the Ophthalmoscope. Surgical Operations are performed on Wednesday mornings only, except in cases of emergency. Practical Pharmacy is taught under the superintendence of the Apothecary of the Hospitals. Eight resident Clinical Clerks and the Dressers are selected each half-year from among the best qualified of the Pupils, without the payment of any additional Fee. At the termination of the Session, Premiums will be awarded in Clinical Medicine and Surgery. The Richmond Institution for the Insane, containing 700 beds, adjoins these Hospitals. Fee for attendance, £1 1s.—Fees: Winter and Summer Session (nine months), £9 9s.; Six Winter Months, £7 7s.; Perpetual Pupils, £25 paid on entrance.—The Practice of these Hospitals is Free to the Medical Officers of the Navy and Army.—The Carmichael School of Medicine is in the immediate vicinity of these Hospitals.

Rotundo Lying-in Hospital.—*Consulting Physician*, Dr. C. P. Croker; *Consulting Surgeon*, Dr. R. Adams; *Master*, John Denham; *Assistant-Physicians*, Dr. J. Guinness-Beatty and Dr. T. W. Madden. This Hospital, the largest and only Chartered Clinical School of Midwifery in the British dominions, contains 130 beds, fifteen of which are appropriated to the Diseases of Females.—An Obstetrical Museum, containing upwards of 500 Preparations, and a Library, are attached to the Hospital.—Clinical Instruction in Midwifery, and the Diseases of Women and Infants, is given daily. The pupils are privileged to attend the Cow-Pock Institutian. The Lectures are recognised by the Licensing Bodies of the United Kingdom.—The Diploma is recognised by the Poor-law Commissioners in Ireland as a qualification in Midwifery.—The Intern Pupils have each a separate bedroom, with the use of a sitting-room.—Two Courses of Lectures are given yearly—the first commencing early in November, the second early in May. *Fees:* Intern Pupils—Six Months, £21; Three Months, £12 : 12; Two Months, £8 : 8. Extern Pupils—Six Months, £10 : 10; Three Months, £6 : 6; Two Months, £4 : 4.

St. Vincent's Hospital, Dublin.—*Medical Advisers:* Dr. J. M. O'Ferrall, Dr. F. B. Quinlan, Dr. E. D. Mapother, Mr. W. H. O'Leary, Dr. R. Cryan. *Surgeon-Dentist*, Mr. Doherty. The Hospital, which is on the principle of the hospitals in Paris, contains one hundred beds. There is a large ward, on the plan of the *Enfans Malades.* Connected with the Hospital is an extensive Dispensary. Medical and Surgical Clinical Lectures will be delivered three times a week during the Session, and Clinical Instruction will be given daily. Operations admitting of delay are performed on Fridays at 10 A.M. Certificates of attendance on the Practice of this Hospital are recognised by all the Licensing Bodies. Dr. O'Ferrall will, at the end of the Session, award a Prize to the pupil who shall produce the series of cases containing the most accurate description of Diseases of Children. At the end of the Session Prizes will be awarded to the pupils who shall give the most satisfactory evidence of proficiency in Medico-Chirurgical knowledge acquired at the bedside.

Sir Patrick Dun's Hospital, Dublin.—*Consulting Physician*—Dr. Stokes, F.R.S.; *Consulting Surgeon*—Dr. R. Adams. *Clinical Physicians*—Dr. R. Law; Dr. Moore; Dr. Aquilla Smith. *Midwifery Physician*—Dr. E. B. Sinclair. *Clinical Surgeons*—Dr. B. G. M'Dowel; Dr. R. W. Smith; Dr. E. H. Bennett. *University Lecturer in Operative Surgery*—Dr. R. G. Butcher.—The Hospital is visited daily, at Nine o'clock, by each of the Physicians and Surgeons on duty.—*Clinical Lectures* are delivered in the Hospital Theatre, at ten o'clock, on the following days. Mondays, the Clinical Physician on duty; Tuesdays, the Clinical Surgeon on duty; Thursdays, Dr. Butcher; Fridays, Dr. Sinclair.—*Fees*—The payment of £3 : 3 to the Registrar entitles any student to attend the Clinical Teaching for Twelve Months. In addition to the Hospital Fee, the following payments must be made for permission to attend the Weekly Lectures of the Clinical Physicians and Surgeons, which are delivered in the Hospital Theatre. First year, £9:9; second year, £6:6; third year, £3:3. The Medical Scholars of Trinity College are entitled to Twelve Months' Residence in the Hospital, on conditions laid down by the Governors.—Silver Clinical Medals will be awarded to the Students who shall pass the best Examinations on the Medical and on the Surgical cases treated in the Hospital during the year. The written part of the Examination shall consist of five cases recorded by each candidate. The Examinations for the Clinical Medals will be held in the first week of July in each year.—*Sir Patrick Dun's Maternity.*—Maternity Fee, for Six Months' instruction in Practical Midwifery, £3 : 3. Students of Trinity College are not liable to any other payment for instruction in Practical Midwifery. Other Students are required to pay £3 : 3 each, to the King's Professor, for Six Months' practical instruction, in addition to the Hospital Maternity Fee.—The Secretary of State for War has authorised the formation of a class of Midwives for Service in the Army, in connection with Sir P. Dun's Maternity.

Westmoreland Lock Hospital, Dublin.—*Surgeons*—Dr. B. M'Dowell; Mr. J. Morgan.—The Hospital contains 150 beds. Two Clinical Lectures will be delivered each week, commencing the first Monday in November. Fee for Hospital attendance, including Clinical Lectures: Winter Session, six months, £4 : 4; Summer Session, three months, £2 : 2.

Queen's College, Belfast.—Faculty of Medicine. The Winter Session of 1868-69 will commence on Monday, November 2nd. Anatomy and Physiology, Dr. Redfern; Chemistry, Dr. Thomas Andrews; Practice of Medicine, Dr. James Cuming; Practice of Surgery, Dr. A. Gordon; Materia Medica, Dr. J. S. Reid; Midwifery, Dr. R. F. Dill; Medical Jurisprudence, Dr. J. F. Hodges; Zoology, Dr. Wyville Thomson, LL.D. The Demonstrations on Anatomy are delivered by Dr. Burden. The Anatomical Rooms are open for the entire day; and Students are aided in their Dissections by the Professor of Anatomy and the Demonstrator.—*Fees:* Anatomy and Physiology—1st course, £3; each subsequent course, £2. Anatomical Demonstrations and Practical Anatomy—each course, £3. Practical Chemistry, £3. Other Medical Lectures—1st course, £2; each subsequent course, £1.—The Examination for Medical Scholarships, tenable for one year, and of which two are awarded to the Students of each year of the Medical Course, will commence on Thursday, October 18th. The Matriculation Examination will commence on the same day.

Belfast General Hospital.—Physicians, Dr. Drennan, Dr. Smith, Dr. Ross, Dr. Cuming; Surgeons, Dr. Browne, R.N., Dr. Murney, J.P., Dr. Gordon, Dr. W. MacCormac. The Malcolm Exhibition, value £20, founded by the widow of the late Dr. Malcolm, is awarded annually, by competitive examination in April, to Students attending this Hospital. The Charters' Medical Exhibition, value £50, will be awarded this year by competitive examination, to be held at the end of the Session. All medical students of at least two years' standing can compete. Fees for Clinical Instruction—Winter Session, £5 5s.; Summer Session, £2 12s. 6d. This Hospital, being the only one for the reception of accident and other surgical cases occurring in the large manufacturing town and seaport of Belfast, affords unusual facilities for acquiring a knowledge of Practical Surgery. Three resident pupils are appointed by examination.

Belfast Lying-in Hospital.—Fee for the Session, £3 3s.

Queen's College, Cork.—Faculty of Medicine. Professors: Anatomy and Physiology, and Practical Anatomy, Dr. J. H. Corbett; Practice of Medicine, Dr. D. C. O'Connor; Practice of Surgery, Dr. W. K. Tanner; Materia Medica, Dr. Purcell O'Leary; Midwifery, Dr. J. R. Harvey; Natural Philosophy, Mr. England; Chemistry and Practical Chemistry, Dr. Blyth; Zoology and Botany, Dr. J. R. Greene. The Lectures will commence on November 4th. The Course of Practical Anatomy will be conducted under the direction of the Professor of Anatomy and Physiology, assisted by Drs. Shinkwin and Jones, Demonstrators. Eight Scholarships will be awarded to Students in Medicine, thus: Two Junior Scholarships, of £25 each, to Students commencing their first, second, third, and fourth years. Clinical Medicine and Clinical Surgery at the North and South Infirmaries, by the Physicians and Surgeons of these institutions. Clinical Midwifery at the Lying-in Hospital.

Queen's College, Galway.—Faculty of Medicine: Chemistry, Dr. T. H. Rowney; Natural History, Dr. A. G. Melville; Anatomy and Physiology, Dr. J. Cleland; Practice of Medicine, Dr. N. Colahan; Practice of Surgery, Dr. J. V. Browne; Materia Medica, Mr. S. M'Coy; Midwifery, Dr. R. Doherty; Medical Jurisprudence, ———. The First Matriculation Examination for the Session 1868-9 will be held on Friday, October 23rd. The Examinations for Scholarships and Exhibitions will commence on Thursday, October 22nd. Eight Scholarships, of the value of £25 each, will be offered for competition; viz., two to Students of the first, second, third, and fourth years respectively. In addition, four Exhibitions of £10 each will be offered; two to Students of the first and second years respectively; and two Exhibitions of £20 each—one to Students of the third and fourth years respectively. All Scholars are exempt from payment of a moiety of the fees for the classes attended.

ASSOCIATION INTELLIGENCE.

WEST SOMERSET BRANCH: ORDINARY MEETING.

An ordinary meeting of the above Branch will be held at Clarke's Castle Hotel, Taunton, on Wednesday, Sept. 30th, 1868. Dinner at 5 o'clock; after which, papers or cases will be communicated.

Gentlemen intending to be present at the dinner, or to read papers after, are requested to give notice to the Honorary Secretary,

Taunton, Sept. 8th, 1868. W. M. Kelly, M.D.

SOUTH MIDLAND BRANCH.

The autumnal meeting of the above Branch will take place at the Town Hall, Luton, Bedfordshire (Dr. Prior, President), on Friday, October 2nd, at 2 p.m.

Gentlemen intending to read cases or papers, are requested to send the names or titles of the same, without delay, to Dr. Bryan, Northampton.

J. M. Bryan, M.D., Northampton } *Hon. Secs.*
G. P. Goldsmith, Esq., Bedford }

Northampton, September 8th, 1868.

CUMBERLAND AND WESTMORLAND BRANCH.

The autumnal meeting of the above Branch will be held at the Board Room of the Infirmary, Howgill Street, Whitehaven, on Wednesday, October 14th, at 1 p.m. The Infirmary will be visited at 3.30 p.m.; and dinner ordered at the Black Lion for 4 p.m.

Gentlemen intending to be present at the dinner, or to read cases or papers, are requested to give notice to the Honorary Secretary,

Carlisle, Sept. 19th, 1868. Henry Barnes, M.D.

CORRESPONDENCE.

WHAT ARE DISEASES?

Sir,—The Journal of August 8th contains a paper by Dr. Wilks, in which he has noticed a recent communication of mine bearing the above title. Anything proceeding from Dr. Wilks's pen demands careful consideration; and I can only thank him very truly for his friendly criticism. It may, however, be worth while to state briefly the points where we agree, and those where our opinions diverge.

1. I agree entirely with him in reprobating to the uttermost an indiscriminating "keeping up treatment." More than once I have, in published lectures, protested against this too fashionable procedure. In opposition to those who hold that all disease is debility, I have advocated again and again the judicious employment of depressants, as antimony, mercury, colchicum, not forgetting such old fashioned remedies as blisters and leeches. I recognise the existence of sthenic disease, not in the sense with which some have, I think unfairly, credited the term, of implying an excess of vital power, but simply as descriptive of a condition in which the principal functions—and notably the circulation—present phenomena widely different from those which are observed in asthenia. That the nervous system and the heart do really possess, and exert, much more power in the one case than in the other, can scarcely, I think, be questioned; and, if so, then, comparing the one with the other, the terms sthenic and asthenic seem to me convenient and appropriate. It is very true, that pneumogastric and vasomotor paralysis may be essential factors of both states; but this does not alter the clinical fact, that the phenomena are very different, and, what is more, require very different treatment. The existence of such difference as I have adverted to, is attested by such names as Graves, Latham, Symonds, C. J. B. Williams; and my own experience leaves me no doubt that they are right.

2. I must say that I have been more fortunate than my friend in my experience of those *confrères* who have asked my co-operation. Once only in my life have I found a practitioner who could hardly be withheld from giving aperients in a case of peritonitis, and he lived far from London. I really think the public runs very little risk of malapraxis, at any rate, from practitioners of average standing and ability.

3. My friend credits me with holding the view that the patient is to be treated, and not the disease. I do not deny the imputation; but I have nowhere in the least admitted that diagnosis is unimportant. On the contrary, what I contend for is, that such diagnosis as is implied in a mere name is altogether insufficient; and I urge a deeper penetration

into the nature and quality of the morbid action, such as, perhaps, can only be gained by cautiously testing the system with different agents. My objections are especially levelled against any routine procedure—against treating any disease, not excepting typhoid fever, in any stereotyped fashion. I am generally best pleased myself when my typhoid patients' bowels are "locked up", agreeing in this with Todd and Murchison; but I can quite understand that, if there be much intestinal hyperæmia, a moderate diarrhœa may be beneficial, and, instead of being arrested, should rather be promoted by saline aperients. In renal dropsy, attended with severe dyspnœa, preventing sleep, I have seen opium of marked benefit, though the drug certainly was contraindicated theoretically.

4. I cordially join with Dr. Wilks, in contending for a careful observation of the effects of therapeutic agents, as well as of the true nature of pathological processes. The two must go hand in hand. Without some correct appreciation of the latter, an intelligent administration of remedies is impossible. It seems, also, pretty certain that our knowledge of the beneficial action of a drug in a certain condition may lead us to use it advantageously in analogous states. Bromide of potassium is a good example. Starting from its having been found beneficial in epilepsy, the therapeutist has extended its employment with satisfactory results to insomnia, melancholia, asthma, and certain laryngeal affections, in all of which hyperexcitability of nervous tissue has been a prominent feature.

I will conclude with the old saw, "in medio tutissimus ibis"; and I am sure, when we meet in consultation, we shall both agree to treat the patient and the disease.

I am, etc., C. HANDFIELD JONES, M.B., F.R.S.
London, September 1868.

SIR,—The subject opened for discussion by Dr. Handfield Jones (JOURNAL for July 11th, 1868, p. 29), under the title, "What are Diseases?" and which has been called by Dr. Wilks, who followed him (JOURNAL for Aug. 8th, 1868, p. 136), the most vital question in the whole domain of medicine, has not been exhausted, notwithstanding that it has been treated by these two thinking men and able physicians: the less so, perhaps, as Dr. Wilks has not addressed himself exactly to the point raised by Dr. Handfield Jones, and seems, indeed, to have in some degree misapprehended the tendency of his teaching.

The question is stated by Dr. Handfield Jones as follows. "We want to know whether the signs of distress and disorder which arrest our attention, or which we discern on search, can be trusted to direct our minds into such an intelligent comprehension of the morbid process going on as shall enable us to take the best measures practicable for its relief. We want to know whether similarity of phenomena perceptible to the senses implies necessarily similarity of productive action." His answer, although it is to the effect that diseases are inconstant and varying processes, and that in assigning a name we do not necessarily indicate the treatment, will scarcely bear the interpretation put upon it by Dr. Wilks, "that we must not treat something which we call disease, but we must treat the patient." The very essence of Dr. Jones's communication is to enforce recognition of the fact that beneath all existing symptoms, local and general, there may lie conditions determining the character and tendency of the morbid process; and his teaching is not that treatment is to be guided by the mere surface-phenomena, which are usually considered sufficient indications of the state of the patient, but that the fullest investigation of the *disease*, not only as to its seat and extent, but as to its causation and quality, is required.

I find it possible to agree with almost every word said by both Dr. Handfield Jones and Dr. Wilks; and it seems to me that they have the same end in view—*i.e.*, to bring treatment to turn upon an intelligent comprehension of the morbid process against which it is directed; the latter entering an energetic protest against the prevailing want of purpose in treatment; the former endeavouring to render the purpose clear and comprehensive.

The following questions are proposed, with the same aim; and if, in the discussion of them, the terms of Dr. Handfield Jones's problem are exceeded, the new points introduced will be found to have a close relation with its subject. What constitutes an intelligent comprehension of disease? How far is such a comprehension attainable in the present state of medicine? How far is treatment directed by a real knowledge of the morbid process, and of the influence of remedies upon it?

To the first of these questions I should reply: A perfect comprehension of a given disease would consist—1. In a knowledge of the living morbid anatomy; 2. In a knowledge of the morbid physiology, so to speak—of the starting-point of the morbid process; the factors in its causation, external and accidental, or internal and constitutional; of its tendency, and of the causes which determine its duration, and bring it to an end.

The loose system of therapeutics, which has justly excited Dr. Wilks's indignation, arises in great measure from the fact that no effort is made to realise mentally either the morbid anatomy or the morbid physiology. No man in his senses would treat symptoms in acute abdominal disease, if he took the trouble to try and form a distinct idea of the anatomical conditions.

Our means of ascertaining the desired knowledge respecting disease are mainly signs and symptoms; and the true use of symptoms to the physician is to guide him to a conclusion as to the nature of the disease. The misfortune is, that too commonly symptoms are looked upon rather as indications of the condition of the patient, than as consequences of the disease. When we know a good deal about the disease, we pay little regard to symptoms as such. An elevation of temperature, a rapidity of pulse and respiration, and a degree of oppression of the nervous system, which would otherwise excite alarm, and lead to active treatment, are little heeded when known to be due to measles. We know, again, that, could the disease be arrested, the symptoms would disappear. A whitlow or a gum-boil will give rise to considerable feverishness, headache, restlessness, etc. Very commonly, the relation of symptoms to disease is simply that of the feverishness to the thecal abscess, and treatment of symptoms (or the so-called treating the patient, as distinguished from treating the disease) is as rational as would be an attempt to cure whitlow by drugs.

The second question which I have put is, how far the knowledge attainable in the present stage of medicine is really an intelligent comprehension of disease.

As to living morbid anatomy, our knowledge which is included under the term diagnosis is very satisfactory. This is the one department of medicine in which positive and tolerably complete knowledge has long been possible; and, accordingly, attention has been concentrated upon it; so that it may almost be asserted that no case could now occur which some physician or other would not diagnose. But, if we turn to the questions included in morbid physiology, we are at once in the midst of uncertainties. Let us take, as an example of general disease, acute rheumatism, and examine the state of our knowledge respecting it. We know that, for the most part, it is caused by a chill, especially during perspiration. How does this induce the disease? Is it (*a*) by checking the cutaneous excretion, and throwing in upon the blood poisonous matters, which it is the work of the skin to eliminate? Or is it (*b*) through a depressing or disturbing influence on the nervous system, which reacts on the organic processes? In what, again, does the disease really consist? (*a*) In the presence of a poison in the blood, which requires elimination? or (*b*) in a disorganised or disordered state of the blood, which disturbs its normal relations with the tissues? Again, the attack: Is it (*a*) an effort at elimination? and, if so, is the eliminating agency to be found in the local inflammations, or in the general febrile action? Or (*b*) are we altogether mistaken in thinking the process one of elimination? A right understanding of acute rheumatism would imply an answer to all these questions, and to many more. There are some who would unhesitatingly give the required replies; many more would have been ready to do so a short time since; but the popular theory of rheumatism has been rudely assailed and sorely shaken.

If we take an example of acute local disease—simple, frank pneumonia, for instance (if there be such a case), following exposure to cold—a similar series of questions might be asked. What is here the mode of causation? (*a*) Repelled perspiration and attempted vicarious action? or (*b*) driving in of blood upon the internal organs from the skin? or (*c*) a reflex nervous interference with the pulmonary circulation or nutrition? Again, we find the inflammation progressively invading the lung from below upwards. What are the elements of causation in this advance? and why does it stop? We can understand that the inflammation is at an end in any given portion of lung when a certain cycle of change has been completed. But why does it cease to extend? and why sooner in one case than another? Could we answer this, we should have a very satisfactory indication for treatment.

The object of this examination has been to point out the degree of our ignorance, not the extent of our knowledge. To see distinctly our ignorance is a step towards its removal. We understand disease up to a certain point; and such knowledge as we have forms the true basis for treatment. Careful observation of the course of disease, without administration of remedies, or, as it is called, study of the natural history of disease, has other objects than to fix a point of comparison in ascertaining the effects of medicines; it gives the opportunity of learning the sequence of phenomena attending the rise, progress, and decline of the morbid process; and sequence in the phenomena may furnish the clue to causation of process.

The third question is already answered. If our real knowledge of disease is so limited and so imperfect, our treatment cannot be directed by a comprehension of the influence of remedies upon the morbid process. This, too, must be said independently of the further question, What do we really know of the mode of action of remedies? To this we might almost answer, Nothing whatever. The action of the alkalies is perhaps that most definitely understood; but, respecting this, a crowd of questions, as yet insoluble, might be put. It is usually considered a perfectly satisfactory explanation of the good effects of iron to refer to the fact that it is a normal constituent of the blood-corpuscles. But it is in virtue of some property or other of the iron—some relation to the organic matters of the body—that it is there present; and only when this is known shall we really understand the mode in which iron does good. The effects of many medicines are attributed to influence on the sympathetic system, and through this on the capillary circulation. Whenever this is clearly established, it is a step in the right direction; but the action on the sympathetic itself requires explanation. When it has been ascertained that a substance affects the sympathetic system, our knowledge respecting it is about on a level with our knowledge of the action of opium, which affects the cerebrum chiefly. There remains the question, Why and how? And, in the case of opium, the answer we could make to the question, Why does it induce sleep? would even now be little more than an expansion of Molière's sarcasm—because there is in it a soporific virtue.

One more question may be put, not for the purpose of probing our ignorance, but in the hope of eliciting a definite reply. Taking pneumonia again as an example, it may be sthenic or asthenic, rheumatic, uræmic, typhoid, neurotic, etc. The morbid process is similar in all these varieties, whatever may be its *quality*—hyperæmia, exudation, cell-proliferation; there being, of course, great differences in degree. Is there any means of directly influencing the process as such? any line of treatment which in all cases will have a beneficial tendency, without reference to the cause—which we may always employ in conjunction with the special measures suggested by the presumed cause, and rely upon, in the absence of definite evidence as to cause or quality.

The conclusion to which the preceding reflections bring us is as follows. The treatment of disease will be thoroughly satisfactory only when it is based upon a complete comprehension of the morbid process, and a knowledge of the mode of action of the remedy. We are far from this at present; but it should be our aim. Not to hope for its attainment would be to despair of medicine as a science. In the meantime, we must rely on experience, which has taught us how to combat most diseases with a considerable degree of success. But, while trusting to experience as our guide in treatment, it should also be used as the standpoint from which higher ground is to be reached. Experience relates simply to facts; but the human mind is never content until facts are referred to laws. We theorise, whether we think it or not; and our reason for adopting a given treatment is very rarely experience pure and simple, but is usually some conclusion drawn from experience; and, except where the effect is so obvious and striking that there is no room for uncertainty—as, for instance, that of quinine in ague, that of iodide of potassium in tertiary syphilis, etc.—a particular line of treatment obtains general acceptance and holds its ground in virtue of a plausible theoretical basis, rather than of demonstrated superiority in results. We should seek, then, to replace partial and limited and often conflicting generalisations by great general laws, which would give us an intelligent comprehension of the morbid process, and a rational basis for treatment.

I am, etc., W. H. Broadbent, M.D.

London, September 1868.

A PLEA FOR PROVIDENT DISPENSARIES.

Sir,—It seems to me a suitable time to bring under the notice of your readers the subject of Provident Dispensaries, the object of which is to supplement the provident efforts of the poor in medical matters. I have had three years' experience of the system during my connexion, as medical officer, with the Haverstock Hill and Maldon Road Provident Dispensary. When that dispensary was commenced, the *Lancet* objected, in several editorial notices, to some of the rules, and predicted the failure of an institution managed on such principles, ignoring the fact that similar institutions had succeeded in various parts of the country. But, after these years of trial, I can point to our success, as evidenced by the large and increasing numbers on our book, by the satisfaction of the medical officers and the patients with the working of the dispensary, and by the continued support which we receive from the benevolent. The chief points in our institution are these:

The Funds.—We have an "Honorary Fund", supported by the well-to-do residents; and a "Free Members' Fund", formed by the small monthly payments of the benefited (or free) members. The Honorary Fund defrays the working expenses—rent, furniture, coals, light, dispenser's salary, etc.; and is charged also with the quinine and cod-liver bill, and supplements, as will be shown, the midwifery fee. The Free Members Fund pays the drug-bill, with the exception of quinine and cod-liver oil; and the remainder is divided among the medical officers, in proportion to the number of members who enter under each.

Medical Officers.—There are three medical officers, any one of whom the patients may select; and each of these attends at the dispensary two days a week, and visits the patients at their own homes when necessary.

Free Members.—A man with a family, earning not more than thirty shillings a week, is considered a suitable case for admission. The application must be made one month before the patient is passed by the Committee; but, in certain cases, persons who are ill are admitted on payment of an entrance-fee of five shillings. The payments, which are made monthly, are entered on a card, which the patient brings to the dispensary when he requires advice. Adult males and married women pay 6d. a month; self-dependent women and young men between fourteen and eighteen, 4d.; a man and his wife, 8d., which is increased when they have children, but is never higher than 1s. 4d. When a member is in arrear not more than three months, he is readmitted on payment of a small fine.

Midwifery.—The medical officers receive for each case £1:—15s. from the patient, and 5s. from the Honorary Fund. But, if the member prefers it, she may be attended by the midwife of the institution for 5s., and, in cases of difficulty, may be assisted by one of the medical officers, who receives 10s.—3s. from the patient, and 7s. out of the Honorary Fund.

The Management.—The dispensary is managed by a Committee of the honorary subscribers, of which the medical officers are members *ex officio.*

It will be seen from this that we consider partial independence better than entire dependence. We cannot make our institution self-supporting at once; so we do the next best thing, by helping those who help themselves. If there must be poverty, the provident plan, at all events, aims at discouraging it, and, for that reason, deserves the support of society. From a more strictly medical point of view, it has many advantages. Thus the continued observation of cases gives the medical officer a clearer insight into his patient's constitution, habits, etc.—in fact, all the valuable knowledge which, in higher grades, the "family doctor" acquires. Facilities are also afforded by the provident system for the prevention and registration of diseases.

Although I agree with the opinion expressed by Dr. William Ogle at Oxford, that the system, as a whole, suffers by its restriction to the classes just above pauperism, yet the main fruits of important changes do not appear at once; and I think it would be a step in the right direction, if the profession would recognise the principle more generally by adopting some plan similar to that which I have ventured to sketch here.

I am, etc., J. Ford Anderson.

Belsize Park, N.W., September 1868.

EDUCATION IN OXFORD.

Sir,—Will you afford me the space to bring before the fathers of our Association who are bringing up their sons as medical practitioners, the advantages which are now open to them at Oxford under the new statutes. As far as my observation goes, our ranks are largely recruited by the sons of medical men. As a rule, a medical practitioner brings up one or two of his sons to his profession. By the new statutes at Oxford, permitting students to live in lodgings and diminishing the fees, the expenses for three years need not be more than £45 a year. Mr. G. W. Kitchen gives this scale (*Times*, Sept. 17):

	£	s.	d.
1. Entrance fee	5	0	0
2. Yearly fees at £3 : 10 *per annum* for three years ...	10	10	0
3. Fees for professors' lectures, say	10	0	0
4. Tuition at £3 : 3 per term for nine terms	28	7	0
5. Fees for entrance to examinations ...	3	12	0
6. Board and lodgings for three years of eighteen weeks a year, at £1 : 8 per week	75	12	0
7. Fees at B.A. degree	7	10	0
Total	140	11	0

Or a little over £45 a year.

It is unnecessary to say how advantageous it would be for a young man, being educated under his father's eye at home, to spend, from 18 to 21, three-quarters of each year at Oxford, in a three years' course of the general education of a gentleman; whilst, at the same time, he could attend to some branches of medical study and hospital practice, and thus shorten his London course afterwards.

This would improve his mind and his manners, and he would naturally fall into the best set of students at the London hospitals— most important point, both in his morals and subsequent success. He would afterwards enter private practice with the *prestige* of an Oxford education and degree.

This would also tend to raise the status of our profession. In future, except in larger cities, the old race of pure Oxford and Cambridge physicians will be extinct; and, therefore, a considerable number of men in general practice with Oxford degrees will tend to keep up our status as one of the learned professions.

Fathers sacrifice anything they can possibly afford in the education of their sons; and I doubt whether they could spend £45 a year for three years more advantageously, both for their sons and themselves, than by sending them to Oxford. In how many cases does not the sudden removal of a father throw the whole support of the family on the son, and perhaps just as he is entering life; and in how many more cases are not well educated sons the best partners of their fathers.

I am, etc., AN OLD MEMBER.

HYDROPHOBIA.

SIR,—Judging from letters which have lately appeared in the daily prints, there would seem to be a belief that there is no marked distinction between tetanus and hydrophobia. Indeed, Mr. Holmes Coote states (*Times*, 21st inst.) that hydrophobia, strictly speaking, is not a disease, but only a symptom of tetanus. These views seem to me to indicate a retrogression in clinical knowledge. During my hospital practice in India, I observed more or less closely two hundred and eighty-nine cases of tetanus, and watched carefully ten cases of hydrophobia; and the conclusion to which this experience led me was, that there is so little in common in the symptoms of the two diseases, that an error in diagnosis ought to be very rare. In my judgment, the difference between tetanus and hydrophobia is as well marked as that between tetanus and epilepsy. The pathological distinction is also equally clear. In tetanus, the nervous disturbance is exclusively expended on muscular fibre normally moved by volition. The fibre concerned in organic functions, and normally moved by reflex action, is not implicated. The sensorium is also exempt. In hydrophobia, the nervous disturbance is chiefly, if not entirely, confined to the circle of the eighth pair, and to the sensorium.

I shall not further occupy your space by repeating what has already been long since fully written in my *Clinical Researches*.

I am, etc., C. MOREHEAD, M.D.

Edinburgh, September 1868.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

THE ANNUAL REPORT OF THE POOR-LAW BOARD.

THE subjoined extracts are taken from the Twentieth Annual Report of the Poor-law Board (1867-68).

INSANE PAUPERS.—We have caused the lists of lunatics, idiots, and other persons of unsound mind, chargeable to the poor-rates on 1st January, 1867, to be tabulated. It appears from these returns that in 664 unions and single parishes under Boards of Guardians, there were 41,276 insane paupers, of whom 30,905 were lunatics and 10,371 idiots. The number of paupers, inclusive of the insane, was on the same day 963,200. In regard to the sexes of the insane paupers, 18,157 were males, and 23,119 females. These paupers were maintained in the following establishments, viz.:—23,173 in county or borough lunatic asylums; 1,206 in registered hospitals, or in licensed houses; 10,324 in union or parish workhouses; 1,005 in lodgings, or boarded out; 5,568 resided with their relatives.

PROCEEDINGS UNDER THE METROPOLITAN POOR ACT, 1867.—The difficulty which had previously stood in the way of the establishment of a uniform system of administration of relief to the poor from the different provisions of the Local Acts passed at various times and on no fixed principles, and from the existence of different bodies constituted under those Acts, which governed the administration of the law in the large metropolitan parishes, was removed by sections 73 and 74 of the Act referred to. Those sections required the Board by their order, notwithstanding anything in such Local Acts, to direct the election of a Board of Guardians according to the General Poor-law Acts, and conferred upon those Guardians the same powers and authorities, and subjected them to the same orders, regulations, and restrictions as Boards of Guardians elected under the Poor-law Acts.

We accordingly proceeded, in the first instance, to issue in succession orders for the election of Boards of Guardians for the important parishes of St. Pancras; St. Mary, Islington; St. Marylebone; St. George, Hanover Square; St. Mary, Newington; St. Margaret and St. John, Westminster; St. Leonard, Shoreditch; St. James, Clerkenwell; St. Luke, Middlesex; St. Giles-in-the-Fields; and St. George, Bloomsbury. By these orders the number of Guardians to be elected for each of the parishes is 18, with the exception of St. Margaret and St. John, Westminster, for which 16 only are elected; and the qualification prescribed for the office is an assessment to the poor-rate of a rateable value of not less than £40.

With regard to the unions and parishes already under the provisions of the Poor-law Amendment Act, we have thought it desirable to make the following alterations. We have taken the parish of St. Anne, Soho, from the Strand Union, and have added to the Union in lieu of that parish the parish of St. Martin-in-the-Fields. We have also thought it desirable, in consequence of the great increase of the population of the Greenwich and Lewisham Unions, to form a new union termed the Woolwich Union, consisting of the parish of Woolwich, taken from the former Union, and of the parishes of Charlton-next-Woolwich, Kidbrook, and Plumstead, taken from the Lewisham Union. We have also formed a union of the parish of St. James, Westminster, hitherto governed under a Local Act, and of the parish of St. Anne, Soho, taken from the Strand Union, called the Westminster Union. It is satisfactory to state that the orders for the election of Boards of Guardians in the parishes hitherto governed by Local Acts have been duly carried into effect, and the Boards of Guardians elected under them have proceeded to appoint the requisite officers, and to carry into execution upon an uniform system the administration of relief to the poor, under the general regulations of the Board. These are in accordance with the regulations in force throughout the rest of the kingdom.

Of the salutary results produced by this change of system, a remarkable illustration is afforded by the parish of St. Pancras. A valuable report has recently been made by the chairman of the Board of Guardians of that parish, which shows that great improvements have been effected in regard to the relief of the poor, and that they have been accompanied by a considerable diminution of expenditure.

One of the principal objects of the Act being to improve the administration of relief to the sick and insane poor, the provisions relating to this subject have had our earliest attention.

We have by an order, dated the 18th June, 1867, combined the whole of the unions and parishes in the metropolis into a district, termed the Metropolitan Asylum District for insane, fever, and small-pox cases. Under this order a Board of Management has been constituted, consisting of forty-five members elected by the Guardians of the several unions and parishes in the district, and of fifteen members nominated by the Poor-law Board under the power granted to them for this purpose by the 11th section of the Act. The managers have since been actively engaged in carrying into effect the objects for which they were appointed. They have decided on erecting two asylums for the insane, each to accommodate 1,500 patients, one situated at Leavesden near Watford on the north side, and the other at Caterham near Croydon on the south side, of the Thames. Sites have been purchased for both, and plans for the buildings have been approved by us. The managers have also determined to erect three asylums for fever and small-pox patients, one for the north-west, another for the north-east, and a third for the southern district. For two of these asylums very eligible sites have been secured; for the north-western in the parish of Hampstead, and for the north-eastern at Homerton; and the managers are in treaty for a site at Stockwell for the southern district.

We have also formed the following sick asylum districts.

1. The Rotherhithe Sick Asylum District, consisting of the St. Olave's Union, and the parishes of St. Mary Magdalen, Bermondsey, and St. Mary, Rotherhithe.

2. The Newington Asylum District, comprising the St. Saviour's Union, and the parishes of St. George-the-Martyr, Southwark, and St. Mary, Newington.

3. The Kensington Sick Asylum District, comprising the parishes of St. Mary Abbotts, Kensington, and St. Margaret and St. John, Westminster.

4. The Poplar and Stepney Sick Asylum District, comprising the Poplar and Stepney Unions.

5. The Central London Sick Asylum District, comprising the Westminster and Strand Unions, and the parishes of St. Giles-in-the-Fields, and St. George, Bloomsbury. These asylums will be superintended by managers, of whom some are chosen by the Guardians, and others nominated by the Poor-law Board, as in the case of the Metropolitan Asylum District already described.

We have addressed letters to the Guardians of the following unions and parishes, requiring them to provide infirmaries on sites detached from the workhouse. St. Matthew, Bethnal Green; St. Giles, Camberwell; St. Luke, Chelsea; St. James, Clerkenwell; Fulham Union; St. George-in-the-East; St. George, Hanover Square; Hackney Union; Holborn Union; St. Luke, Middlesex; St. Mary, Lambeth; St. Marylebone; Mile End Old Town; Paddington; St. Leonard, Shoreditch; Wandsworth and Clapham Union; and Whitechapel Union. The Guardians of all these unions and parishes have given the subject their consideration, and proceedings have either been already taken, or are to be taken at an early period, for carrying the measures which we have recommended into effect.

When all the measures which we have described shall have been completed, the removal, from the workhouses to suitable buildings provided for them, will be effected of the patients suffering from fever and small-pox, of the harmless and chronic lunatics and idiots, of the children, and of the paupers suffering from acute disease, and we do not doubt that ample room will then be left in the workhouses for the due relief, classification, and management of the able-bodied poor of both sexes and of all classes, and of the aged and infirm.

With the view, however, of preventing overcrowding at the present time in the workhouses pending the provision of additional permanent accommodation, the Boards of Guardians in several cases have erected, hired, or otherwise provided temporary buildings for certain classes of the poor.

SPECIAL INSPECTIONS OF WORKHOUSES.—We have caused special inquiries to be made by our inspectors into the state of some of the workhouses upon which unfavourable reports had been published by medical gentlemen connected with some of the medical journals. These were the workhouses of the Cheltenham Union, the Farnham Union, and the Walsall Union. The report of our inspectors on the last two of these union workhouses have been laid before Parliament, and may be found among the sessional papers of the House of Commons, 1867-68. They are too voluminous to be embodied in the present report, and we must therefore refer to these papers for full information as to the result of the inquiries.

The result of the inquiry made by our inspectors, Mr. Graves and Dr. Smith, into the condition of the workhouse of the Cheltenham Union, appeared to us to show that the arrangements of the workhouse were in many respects defective; and that the insufficiency of the accommodation was such as could only be remedied either by the erection of an entirely new workhouse for all classes, or of a separate building for the children on another site.

We instructed Mr. Graves to attend the Board of Guardians and bring before them the various points connected with the present state of the workhouse which required special attention on their part, and also more particularly the question of the erection of a new workhouse.

We have the satisfaction of stating that after full deliberation on the subject, the Guardians have decided on erecting a separate school for the children, and have proceeded to provide a suitable site for the purpose. When the building shall have been completed, the removal of the children from the present workhouse will, we doubt not, leave ample accommodation for the other classes of inmates, and will enable the Guardians to place the arrangements for the sick on an entirely satisfactory footing.

The general reports of the inspectors on the workhouses in their several districts (omitting the Metropolitan District) have appeared to us to show that in the great majority of cases they provide adequately for the due relief of the classes of inmates for whom they are intended. But we regret that in some instances, and particularly in parts of the manufacturing district, defects and abuses of a serious kind are shown to have existed. These defects and abuses appear to have been principally occasioned by the inadequacy of the workhouses in point of size, arising from the rapid increase of population in certain localities, by the pressure of commercial or manufacturing distress, and in some cases by a failure in the discharge of their duty by the officers of the workhouse, and by neglect of the regulations laid down by the Board. There is reason too, to fear, that in certain cases there has been a want of proper supervision on the part of the Guardians and the Visiting Committees.

TREATMENT OF THE SICK POOR.—We desire, with reference to the sick wards of the workhouses, to point out that they were originally provided for the cases of paupers in the workhouse who might be attacked by illness, and not as State hospitals into which all the sick poor of the country might be received for medical treatment and care. So far indeed is this from being the case, that at least two-thirds of the sick poor received medical attendance and treatment in their own homes.

It is also a very general practice on the part of the Guardians of unions to subscribe annually, under the provisions of 14 and 15 Vict. c. 105, s. 4, to the hospitals and infirmaries in their neighbourhood, with the view of sending to them the most serious cases of accident or illness, so that the paupers suffering under dangerous and difficult diseases may have the benefit of the combined skill and complete appliances for medical or surgical treatment which are afforded by those institutions. It is nevertheless highly important that the workhouses should be supplied with all reasonable and proper appliances for the treatment of diseases of every kind; and there can be no question of the necessity of cleanliness, sufficient space, good nursing, and of the adoption of everything which may tend to promote a cure or alleviate suffering. To secure these important objects our earnest endeavours will at all times be directed; and we do not doubt that we shall have the willing co-operation of the Guardians.

DIETARY.—We insert in the Appendix, p. 39, the report of our medical officer, Dr. Smith, on uniformity of workhouse dietaries, and we desire to draw attention as well to that document as also to his report on cooking in workhouses, which was inserted in the Appendix (p. 395) to our last report. We have transmitted copies of both these reports to the Boards of Guardians throughout the country, aud we have received communications from the Guardians of several unions requesting our sanction to alterations which, after considering the statements and recommendations in those reports, the Guardians had decided upon making in the dietaries of the workhouses.

The expediency of establishing in workhouses a dietary approximating to uniformity, so far as it can be accomplished with due regard to the different habits of the labouring population in various parts of the country, and the different kinds of food consumed by them, cannot be doubted; but at any rate, whatever varieties there may be in the actual food provided, the principles upon which the dietaries should be formed should be the same in all cases. The food should be plain and wholesome, the quantity sufficient without being excessive, and the composition and cooking such as to render it palatable, so that waste may be avoided, either from the allowance being more than the inmates require, or from the food being distasteful to them. The detailed observations of Dr. Smith on this subject appear to us to deserve the attentive consideration of Guardians.

We have taken measures, under the advice of the medical inspector of the Metropolitan District, with the object of establishing an uniform dietary in the workhouses of that district, in which the habits of the labouring population do not so far differ as to place any obstacle in the way of such an arrangement.

THE COCKERMOUTH WORKHOUSE.

SIR,—In your last week's remarks as to the accommodation of the Cockermouth Union Workhouse, it is stated that the lying-in ward contains only seven beds; and that at the time it was visited by the inspector, Mr. Hedley, there were thirty-five women in it. This is a mistake; though, I believe, it occurred in some of the local newspapers, from which, probably, you copied it. The ward in question does contain only seven beds, and is much too small for the requirements of the House; but I never saw it occupied by more than nine women at the same time.

I am, etc., H. DODGSON, M.D.

⁂ The statement to which Dr. Dodgson refers, was copied from a local report of some remarks made by Mr. Hedley, the Inspector.

CONSUMPTION OF SPIRITS.—In the first half of the year 1868 the quantity of home-made spirits returned for consumption in the United Kingdom as beverage amounted to 9,571,842 gallons, a decrease of 605,315 gallons compared with the quantity in the first half of 1867. In England the quantity was 5,317,574 gallons, a decrease of 42,425 gallons; in Scotland, 2,048,640 gallons, a decrease of 217,135 gallons; in Ireland, 2,205,628 gallons, a decrease of 345,755 gallons. In the same half-year, in addition to these 9,571,842 gallons of home-made spirits, 1,454,198 proof gallons of foreign brandy were entered for home consumption, an increase of 4111 gallons over the corresponding period of 1867; and 1,896,168 proof gallons of foreign rum, a decrease of 216,614 gallons.

DR. THOMAS C. BRINSMADE, of Troy, United States, died of heart disease on June 22nd, while attending a meeting in behalf of the Rensselaer Polytechnic Institute. Dr. Brinsmade was born in New Hartford, Litchfield county, Connecticut, in 1803, and, after graduating at Yale College, went to Lansingburgh, where he remained until 1832, when he moved to Troy. In 1848-9, he was elected President of the Rensselaer County Medical Society, and in 1857-8, successively Vice-President and President of the State Medical Society. In 1866, he was chosen Vice-President of the American Medical Association, and in 1867, was appointed delegate to the International Medical Congress at Paris. He was in the act of reading his report when he was seized with a sudden faintness, and became unable to proceed. Immediately a messenger was dispatched for medical assistance, but ere this arrived, Dr. Brinsmade had become unconscious, and all pulsation had ceased. He died without a struggle, and his body was borne home by four of the Troy police. The disease of which he died was angina pectoris, of which he must have been a secret sufferer many years.

OBITUARY.

GEORGE GORDON McLEAN, M.D.

We regret to record the death of Dr. G. Gordon McLean, late Professor of Hebrew in Marischal College, Aberdeen, at the age of seventy-three. He was a graduate of medicine, and served as assistant-surgeon in the army for some time, and afterwards as a country practitioner. He, however, gave up the practice of medicine, and entered the Scotch Church, after studying at the Universities in Aberdeen, and for several years with the most celebrated oriental scholars in France. He was shortly appointed Professor of Hebrew in Marischal College and University. He was a man respected by every one as a conscientious Christian and thorough gentleman.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from 16*th to* 22*nd Sept.* (*both inclusive*).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.70
Highest reading of do. (corrected & reduced), on 16th, 10 A.M.	29.98
Lowest ditto Ditto on 19th, 2 P.M.	29.51
Range of pressure during the week	00.46
Mean temperature of air in shade	60.5
Mean temperature of evaporation	58.3
Mean temperature of dew-point	56.4
Mean degree of humidity (saturation=100)	87.
Mean maximum temperature of the week	67.8
Mean minimum temperature of the week	51.6
Calculated mean temperature of the week	59.7
Maximum temperature of air in shade, on 21st	70.9
Minimum temperature (protected), on 16th	47.0
Minimum temperature (exposed on grass), on 16th	38.7
Range of temperature during week	32.2
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 16th	127.9
Lowest ditto ditto on 20th	89.5
Mean amount of clouds (0—10)	4.3
Total rainfall (which fell on 18th, 19th, and 20th)	.58 inc
Mean amount of ozone (0—10)	1.5

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	1	2	2	1	0	0	0	1	2.3
2 P.M.	0	1	2	1	2	0	0	0	0	2.6
10 P.M.	0	1	2	2	0	0	0	0	2	1.8

Mean force of wind (0—12) 2.2

The weather of the week has been on the whole fine. Atmospheric pressure has been rather less than last week; the range has been moderate. Temperature has decreased a little. On the 18th, there was lightning and thunder, with a rainfall of .45 inch. Winds have been chiefly easterly, and of moderate force. Humidity has increased; and on the mornings of the 19th and 21st there were dense fogs. General health good.

Kew, September 23rd, 1868.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, Sept. 17th, 1868.

Hart, Walter, King's College Hospital
Hill, Philip Edward, 14, Cumberland Place, Bayswater (St. Mary's)
Lovett, Samuel Robert, 23, Southampton Street (King's College)
Norton, George Everitt, Middlesex Hospital
White, William Leavens, Dundee Royal Infirmary

At the same Court, the following passed the first examination.

Hopkins, John, St. Mary's Hospital
Taylor, William Bramley, Camberwell (Guy's)

MEDICAL VACANCIES.

The following vacancies are declared:—

BANDON UNION, Co. Cork—Medical Officer for the Templemartin Dispensary District.
CHELTENHAM COLLEGE—Surgeon.
CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square—Physician.
DENTAL HOSPITAL OF LONDON—Assistant Dent .. Surgeon.
GLASGOW ROYAL INFIRMARY—Surgeon; Two Assistant-Physicians; and and Two Assistant-Surgeons to the Dispensary Department.
HAMBLEDON UNION, Surrey—Workhouse Medical Officer and District Medical Officer.
LOCHGOILHEAD AND KILMORICH, Argyleshire—Parochial Medical Officer.
MACCLESFIELD DISPENSARY—House-Surgeon.
MIDDLESEX HOSPITAL—House-Surgeon.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
ROYAL CORNWALL INFIRMARY, Truro--House-Surgeon, Secretary, and Dispenser.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician.
ROYAL SOUTH LONDON DISPENSARY, St. George's Circus—Two District Surgeons for Blackfriars and Southwark.
SHEFFIELD GENERAL INFIRMARY—Physician.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Physician; Physician-Accoucheur; Surgeon.
ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street—Surgeon.
ST. PANCRAS PARISH—Medical Officer for Males at the Workhouse; Vaccination Officer.
SWINFORD UNION, co. Mayo—Medical Officer for the Kiltamagh and Bohola Dispensary District.
TRINITY COLLEGE, Dublin—Professor of Botany.
UNIVERSITY OF ABERDEEN—Three Examiners for Graduation in Medicine.

MEDICAL APPOINTMENTS.

Army.

Anderson, Staff-Assistant-Surgeon R., to be Assistant-Surgeon 3rd Hussars.
Arden, Surgeon G. B. F., 48th Foot, to be Surgeon 20th Foot, *vice* R. W. Carter.
Best, Surgeon-Major P., 68th Foot, to be Staff-Surgeon-Major, *vice* Staff-Surgeon E. M'Gill, M.D.
Carter, Surgeon R. W., 20th Foot, to be Surgeon 48th Foot, *vice* G. B. F. Arden.
Close, Staff-Assistant-Surgeon C. S., to be Assistant-Surgeon Royal Artillery, *vice* S. H. Halahan, M.D.
Conyers, Staff-Assistant-Surgeon J. S., M.D., to be Assistant-Surgeon 8th Foot.
Crowe, Staff-Assistant-Surgeon J. D., to be Assistant-Surgeon 21st Foot.
Ferguson, Staff-Assistant-Surgeon F., M.D., to be Assistant-Surgeon 15th Foot, *vice* J. D. Healy.
Gore, Staff-Assistant-Surgeon A. A., M.D., to be Staff-Surgeon.
Halahan, Assistant-Surgeon S. H., M.D., Royal Artillery, to be Staff-Surgeon, *vice* Staff-Surgeon-Major P. S. Laing.
Hinde, Staff-Assistant-Surgeon G. L., to be Staff-Surgeon, *vice* Staff-Surgeon-Major J. Crerar, placed on half-pay.
Lewis, Surgeon J. R. M., M.D., Royal Artillery, to be Surgeon-Major, having completed twenty years' full-pay service.
Longmore, Deputy Inspector-General T., C.B., to be Honorary Surgeon to Her Majesty, *vice* Deputy Inspector-General A. Melvin, deceased.
M'Gill, Staff-Surgeon E., M.D., to be Surgeon 68th Foot, *vice* Surgeon-Major T. Best.
Minty, Staff-Assistant-Surgeon A., M.B., to be Assistant-Surgeon 90th Foot, *vice* C. J. Weir, M.B.
Orton, Staff-Assistant-Surgeon R. J. W., to be Assistant-Surgeon Royal Artillery, *vice* A. K. Rickards.
Randall, Staff-Assistant-Surgeon J. G., to be Assistant-Surgeon 14th Foot.
Rickards, Assistant-Surgeon A. K., Royal Artillery, to be Staff-Surgeon, *vice* T. McSheehy, M.D., and subsequently to be Surgeon 87th Foot, *vice* C. W. Woodroffe.
Scott, Staff-Assistant-Surgeon R. J., M.B., to be Assistant-Surgeon 62nd Foot.
Weir, Assistant-Surgeon C. J., M.B., 90th Foot, to be Assistant-Surgeon 75th Foot.
Woodroffe, Surgeon C. W., 87th Foot, to be Staff-Surgeon, *vice* A. K. Rickards.

To be Staff-Assistant-Surgeons.

Anderson, R.
Brown, A. L.
Burford, H. H.
Campbell, W. J.
Conyers, J. S., M.D.
Craig, R. M.
Dobson, G. E., M.B.
Eagar, O. S.
FitzGerald, R. G.
Fraser, J., M.D.
Frazer, P. T.
Garde, W. H.
Gasteen, W. C., M.B.
Geoghegan, W., M.B.
Jackson, T., M.B.
Jennings, C. B.
Jones, C. E.
Kirwan, A.
Knox, M.
Latchford, J., M.B.
Leader, J.
Lewis, T., M.B.
L'Estrange, A. H.
L'Estrange, F. A.
L'Estrange, G. W.
Macrobin, A. A., M.B.
M'Swiney, E. V., M.D.
O'Brien, A. J., M.D.
Parke, D.
Rahilly, J. R.
Reynolds, J. H., M.B.
Ryan, G.
Samuels, W. F.
Thornton, D.
Ussher, J. H., M.B.
Waghorn, F., M.D.
Walker, J., M.B.
Williamson, N. A., M.D.

Royal Navy.

Jameson, Thomas, M.D., Assistant-Surgeon (additional), to the *Fisgard*, for the Woolwich Marine Infirmary.
Mitchell, Alexander, M.D., Assistant-Surgeon, to the *Excellent*.

Volunteers.—(A.V., Artillery Volunteers; R.V., Rifle Volunteers.)

Buchanan, S., M.D., to be Assistant-Surgeon 105th Lanarkshire R.V.
Buchanan, T. D., Esq., to be Surgeon 105th Lanarkshire R.V.
Cumming, J. S., M.D., to be Assistant-Surgeon 1st Renfrewshire A.V.
Gibbs, J. H., M.D., to be Honorary Assistant-Surgeon 8th Devon A.V.
Hayman, P. C., Esq., to be Honorary Assistant-Surgeon 1st Devon Light Horse Volunteers.
Farquharson, D., M.D., to be Honorary Assistant-Surgeon 2nd Clackmannanshire R.V.
Strachan, J., M.D., to be Honorary Assistant-Surgeon 1st Clackmannanshire R.V.
Wilson, W. A., Esq., to be Surgeon 1st Administrative Brigade Renfrewshire A.V.

BIRTHS.

GRAHAM.—On September 23rd, at Lamberhurst, Kent, the wife of *T. H. Graham, Esq., Surgeon, of a daughter.

LANGSTON.—On September 1st, at the Broadway, Westminster, the wife of *Thomas Langston, L.R.C.P.Ed., of a son.

SANSOM.—On September 23rd, at 29, Duncan Terrace, N., the wife of *Arthur Ernest Sansom, M.D., M.R.C.P., of a daughter.

MARRIAGE.

*DAVIES, T. W. H., Esq., Surgeon, of Gloucester Road, Bristol, to Ellen Matilda, youngest daughter of Charles LAMBERT, Esq., of Fillwood House, St. George's, Gloucestershire, at St. Michael's Church, Two Mile Hill, Gloucestershire, on September 17th.

◆

M. MOUNERET, Professor of Chemical Medicine in the Faculty of Medicine in Paris, died suddenly on the 15th instant.

MR. T. W. RANSOME, F.R.C.S., of Darlaston, has committed suicide with prussic acid. He had been unwell for some weeks, and it is supposed that his brain was affected.

ABORTION AS A CAUSE OF INSANITY.—The superintendent of the Michigan Insane Asylum says in his report just published: "Mental derangement has generally occurred as a result of local injury, and the serious impairment of general health, directly traceable to the criminal act. In a few cases it has operated directly as a moral cause, as, for instance, when the unfortunate sufferer has borne a child which has been permitted to remain with her only long enough to show the unhappy mother the priceless value of the gift she had previously refused to accept. In these cases the immediate cause of insanity is remorse. Unless this most disastrous practice be speedily arrested by the efforts now being used to suppress it, and by more stringent laws, severely punishing all parties implicated, it will materially increase the number of female patients annually presented for treatment."—*New York Medical Journal.*

ALLEGED POISONOUS PROPERTIES OF LOCUSTS.—The Indiana papers caution the public against eating the bass fish, until the locust season is over. The locusts falling into the water are eaten by the fish, and become poisonous, and unwholesome in consequence. A number of families are mentioned as having suffered severely from eating locust-fattened bass.

ATOMIC WEIGHT.—After a long period of indecision and confusion, as regards the atomic weights of a majority of the elements, it is gratifying to find that, at the present moment, an almost complete unanimity prevails amongst chemical teachers. Out of upwards of 900 papers, worked in all parts of the United Kingdom, at a recent examination connected with the Science and Art Department, the old atomic weights were employed in less than twenty cases. It is much to be regretted that this unanimity does not extend to notation and nomenclature; as regards the latter, a much greater uniformity prevails in France and Germany than in this country, and it is greatly to be desired that efforts should be made to bring about a better understanding on this subject. To the student a uniformly recognised nomenclature is perhaps of more importance than a generally accepted notation. For the present, the realisation of the latter appears to be impossible, but by a little mutual concession on the part of teachers, and especially of authors, there would be good hope of soon accomplishing the former.—*Professor Frankland's Address to Chemical Section of British Association.*

PRESERVATION OF WINES.—M. Dumesnil has devised a new process for preserving wine. The cask of wine uncorked is placed under an iron bell and the air exhausted; two hours' work is necessary before the noise occasioned by the exit of the air ceases. A vacuum being created, the gases contained in the wine are released from atmospheric pressure, and, as they are essentially elastic, they expand sufficiently to break the cells of vegetable fibrine enclosing them, and escape. These gases are dissolved to such an extent that the withdrawal of a large quantity occasions no sensible decrease of liquid. The theory of the decomposition of grape juice and other organic substances rests on the power of double decomposition. Gaseous products of fermentation are most active in inducing decomposition; they alter wines indefinitely when enclosed in the fibrine-cells, which M. Pasteur calls mycoderma. M. Dumesnil allowed the wines of 1865 to ferment till March, 1866, so as to allow of the conversion of all the sugar and extractive matter into alcohol. At this period he substituted for the usual operations the treatment by the vacuum; fermentation ceased entirely. The wines thus treated arrived at their destination in good condition; with other samples treated in the usual way the result was very different. Notwithstanding four rackings, and possibly four clarifications, the wines have continued to ferment during the whole of the year 1866 and also the commencement of 1867, and they probably still contain gases which will affect them more slowly.—*Chemical News.*

STATISTICS OF BIRTHS AND DEATHS IN FRANCE.—The tables of births and deaths for the year 1865 have recently been published; and from them M. L. de Lavergne, member of the Institute, makes the following remarks upon their results. The returns in question show that the year 1865 was one of the worst of which the statistics have yet appeared; the causes which had arrested the progress of the population had apparently diminished since 1861, but they reappeared with renewed force in 1865. The return of births and deaths for that year give the following results:—Births, 1,006,753; deaths, 921,887; excess of births, 84,866. During a certain period preceding 1848, the average annual excess of births amounted to 180,000; since 1848 it has averaged 100,000; and 1865 falls below that rate. M. de Lavergne states that the diminution does not arise so much from a falling off in the number of births, as in an increase in the deaths; these exceeded 900,000 in 1865, a number only reached in 1849, 1854, 1855, and 1859. The Mexican war was probably a principal cause of the large total in 1865. In thirty-one departments, forming more than one-third of the whole of France, the deaths were actually in excess of the births; and this list includes some of the richest portions of the country, such as the Bouches du Rhone, the two Charentes, Côte d'Or, Gironde, Manche, Marne, Seine-et-Marne, Seine-et-Oise, Var, Vaucluse, Yonne, Eure, and Calvados. The departments in which the excess of deaths was greatest were Bouches du Rhone and Var, where the cholera raged during 1865. In the case of the former department, the deaths were in relation to the births more than 18 to 15, and in the case of the Var 10½ to 7. In the Nord, on the contrary, the most thickly populated of all the departments, the deaths were less than 33 to 46, leaving an excess of 13,293 births. After the Nord, the departments which gained most were those of Brittany, the Pas de Calais, and the Rhine. The same returns show that the number of marriages have been steadily decreasing during the five years ending 1865; in 1861 they amounted to 305,203; in 1865 they had fallen to 298,838. The diminution was, however, less in 1865 than in either of the three previous years; in 1863 it amounted to nearly 2,200, while in 1865 it was 1,700.—*Journal of the Society of Arts.*

SCHOOLS OF SCIENCE.—In his address, as President of the Chemical Section, at the recent meeting of the British Association for the advancement of Science, Professor Frankland said, that the great science schools of the continent have no parallels in this country. The discouraging way in which scientific studies are being introduced into our older universities, the lack of the necessary funds for the proper endowment of professorships, and for the provision of suitable buildings and apparatus in our modern institutions, and the insignificance of the rewards offered to successful students in science, have naturally operated most injuriously upon the extension of chemical culture. Whilst in Heidelberg, Zürich, Bonn, Berlin, Leipzig, and Carlsruhe magnificent edifices have been raised, replete with all the newest contrivances for facilitating the prosecution of chemical studies, we are here still compelled to give instruction and conduct research in small and inconvenient buildings utterly inadequate to the requirements of modern chemistry. The large sums spent by the governments of Germany and Switzerland upon these establishments sufficiently testify to their opinion of the national value of chemistry in education. The laboratory at Zürich cost £14,000, that of Bonn £18,450, the one now nearly completed in Leipzig will cost £12,120, whilst the estimates for the Berlin laboratory, with its seventy-four rooms, amount to no less than £47,715. Such being the comparatively discouraging circumstances under which chemistry is prosecuted in this country, it is not surprising that neither the number of investigators, nor the amount of new facts added to our knowledge during a given time will bear a favourable comparison with the chemical activity of other and more favoured nations. In 1866, 1273 papers were published by 805 chemists, being at the average rate of 1.58 paper for each investigator. Of these Germany contributed 445 authors and 777 papers, or 1.75 paper to each author; France 170 authors and 245 papers, or 1.44 paper to each author; the United Kingdom 97 authors and 127 papers, or 1.31 paper to each author; whilst other countries furnished 93 authors and 124 papers, or 1.33 paper to each author. Our case is even worse than it appears to be from these figures; for a considerable proportion of the papers contributed by the United Kingdom were the work of chemists born and educated in Germany, but resident in this country. I am not aware how far a like comparison as regards activity in research obtains in other sciences; but if the United Kingdom takes a similar position in them, it is nothing less than a national disgrace that a country which perhaps more than any other owes its greatness to the discoveries of science should do so little towards the extension of scientific research. Fortunately, however, this national apathy has not been shared by individual chemists, and the year has not passed without several important additions to our knowledge.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY....	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Corespondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

THE HASTINGS MEDAL.—Competitors for the Hastings Medal may receive their essays on application to the General Secretary, T. Watkin Williams, Esq., Newhall Street, Birmingham.

PRACTICAL SURGERY IN THE UNIVERSITY OF EDINBURGH.—We are informed by the Secretary to the Senatus Academicus, that instruction in Practical Surgery is given in the University of Edinburgh by Professor Spence. This fact was not noticed in the official programme from which we compiled our statement of the Medical School of the University in the Educational Number.

CARBOLIC ACID IN ENTERIC FEVER.

SIR,—There can be no doubt as to the great value of carbolic acid as a disinfectant in various epidemics. I wish to call the attention of your numerous readers to its use as a remedial agent in enteric fever.

More than a year ago, a medical friend asked me to see his child, under two years of age, suffering from a severe attack of fever of the enteric type. The diarrhœa was excessive, and of the usual character. We could not bring it under control by the usual remedies, and our patient appeared to be sinking, when I suggested the use of Calvert's crystallised acid in half-grain, afterwards increased it to two-thirds grain, doses every three hours. The child took the medicine in sugar and water without difficulty. In less than twenty-four hours, the character of the stools was changed: they became much darker in colour, and of a more consistent nature. In a day or two, we had no more trouble with the diarrhœa; and our patient, after having been considered hopeless by more than one medical man, recovered.

Two older children were attacked; the acid was at once administered; and the disease was not nearly so severe or prolonged as in the first case.

My object in giving the carbolic acid was, that it might act locally on the glands and mucous membrane of the small intestines; from the immediate change in the character and frequency of the stools, I have no doubt it did so. In the next two cases, I think it checked the disease, and prevented its running its full course. Since then, I have used it in several cases; and I have a strong impression that it cuts short the disease.

Of course, it is difficult to prove that the cases in which the drug were given would, if left to themselves, have ran the usual course of typhoid fever. This, however, I must say, that they presented all the symptoms of the early stages of the disease, and were, in my opinion, cut short by the use of the carbolic acid.

I write this, that my experience may be tested by others, as it is only by the use of the medicine in a large number of cases, that its value can be ascertained.

Several months ago, Mr. Dun, druggist here, made me some capsules, containing each two and a half grains of carbolic acid. I find them very useful; they are still as perfect as when first made. I am, etc.,

Glasgow, September 1868. ANDREW FERGUS, M.D

G. P. R.—All travellers passing St. Cross, Winchester, can claim a horn of ale and a slice of bread. We are unable to say whether the custom is observed at Exeter College, Oxford.

REMUNERATION OF CLUB SURGEONS.

SIR,—Mr. Leacroft seems to be unaware that by many surgeons four shillings per head for attendance on members of sick societies would be considered a liberal remuneration, and would be hailed with delight. The maximum sum received by the medical men of this town is half-a-crown per member; and the majority of the clubs only pay two shillings. Out of this small sum, they require a yearly contribution to their fund, sundry bowls of punch at their festivals, and the prestige of our presence in their processions. Still, I trust, we are "respectable medical men", waiting for the good time coming—the five-shilling era—which I hope the Midland Counties movement will expedite. I am, etc.,

Congleton, September 1868. B.

CHARCOAL PIPES.

SIR,—Would some chemist inform a smoker whether or not any possible harm could result from smoking the recently introduced charcoal pipes? They certainly absorb better than any others; but, when heated to a certain point, might they not give off dangerous fumes? I am, etc.,

London, September 1868. A LOVER OF TOBACCO.

APPEAL TO THE BRITISH MEDICAL ASSOCIATION AS A COURT OF HONOUR.

SIR,—Some weeks ago, the *Lancet* attacked an institution of whose committee of management I am a member. Being at a loss to understand what justification the *Lancet* could show for charges affecting seriously and injuriously the members of our profession who give their services to the institution, and those who are responsible, like myself, for the conduct of its affairs, I wrote a short note, requesting a specification of the grounds on which the most objectionable assertion in the article alluded to was made. After a delay of a week, my note was inserted, with the appendage of a column of editorial comments. An attempt at justification, a reiteration of the former charges, and the coinage of fresh aspersions, were contained in these comments. To all the arguments and allegations of the *Lancet*, I then replied in full; and so effective, evidently, was my reply, that the ostentatious motto, "audi alteram partem"—the *habeas corpus* of correspondents to the *Lancet*—was suspended, and the reply suppressed. A stoical philosopher would have remained satisfied with the complete victory which he had gained at the office of the *Lancet*, in spite of that victory being converted by suppression into an apparent defeat before the outer world. But, sir, my letter contained a challenge to the editor, or to any member of his staff, to meet me in fair discussion before an *impartial* jury of our professional brethren—the Metropolitan Counties Branch of the British Medical Association. As this challenge was a serious one, I now ask you to allow me to repeat it in the columns of the JOURNAL of the Association; and I do so the more confidently, because its founders contemplated that it might usefully discharge the function of a Court of Honour and Appeal for the reconciliation of professional differences, for the promotion of honourable conduct on the part of medical brethren towards each other, and for the advancement of the interests of justice and of truth. I am, etc.,

WALTER RIVINGTON, M.S.Lond., Assistant-Surgeon, London Hospital.

P.S.—I have delayed this letter on account of the discussion on the Medical Council.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Londonderry Sentinel, Sept. 18th; The Wiltshire County Mirror, Sept. 23rd; The Cambridge Independent Press, Sept. 19th; The Lincolnshire Chronicle, Sept. 19th; The Japan Times' Overland Mail, July 25th; The News, August 29th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. T. Watkin Williams, Birmingham; Dr. J. I Mackenzie, Sidmouth; Dr. H. C. March, Rochdale; Mr. J. S. Turner, Alfreton; Messrs. Robertson and Scott, Edinburgh; Sir H. Thompson, London; Mr. T. Langston, London; Dr. Blumer, Sunderland; Dr. Synnott, Halifax; Dr. Crossby, Nice; Mrs. M. A. Baines, London; Mr. T. Gilbert, Edinburgh; The Medical Officers and Lecturers of the Middlesex Hospital Medical College, London; Mr. T. Brown, Belloram, Fortune Bay, Newfoundland; Mr. H. Terry, jun., Northampton; Messrs. Corry and Co., Glasgow; Messrs. Wyman Brothers, Calcutta and Allahabad; Dr. C. A. Cameron, Dublin; Dr. D. Hooper, London; Dr. Eade, Norwich; Dr. H. Dodgson, Cockermouth; Messrs. Adams and Francis, London; Mr. F. Flint, Birmingham; Mr. R. MacPherson, Birmingham; Dr. Sansom, London; Mr. J. L. Morgan, London; and Dr. P. H. Watson, Edinburgh.

LETTERS, ETC. (with enclosures) from:—

Dr. Joseph Bullar, Southampton; Dr. W. H. Broadbent, London; Dr. J. Fayrer, Calcutta; Dr. S. Haynes, Salisbury; Dr. Hugh Norris, South Petherton; Dr. Cobbold, London; Dr. Rooke, Cheltenham; Dr. Beales, Congleton; Dr. T. H. Green, London; Dr. C. Bäumler, London; Mr. Alfred Fleischmann, Cheltenham; Dr. H. Barnes, Carlisle; Mr. A. J. Moore, Reading; Mr. D. Faulkner, London; Mr. J. D. Hill, London; Mr. W. Rivington, London; Mr. R. A. Whythan, Glasgow; Dr. Bristowe, London; Dr. Ogston, Aberdeen; Mr. W. Draper, York; Dr. F. Anderson, London; Surgeon-Major H. B. Hinton, London; Dr. Bryan, Northampton; Mr. T. Nunneley, Leeds; Mr. J. I. Ikin, Leeds; Mr. Osman Vincent, London; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; The Registrar-General of England; The Registrar-General of Ireland; Dr. John Murray, London; Dr. Treutler, Kew; Mr. G. Croxton, London; Dr. W. B. Dalby, Chester; Dr. C. Morehead, Edinburgh; Mr. T. H. Graham, Lamberhurst; Mr. Smallpeice, Guildford; and Dr. Macalister, Dublin.

BOOKS, ETC., RECEIVED.

On Asthma: its Pathology and Treatment. By H. Hyde Salter, M.D., F.R.S. Second edition. London: 1868.

Dover as a Health Resort. By Charles Parsons, M.D.Edin. London: 1868.

Pharmacopœia of India. By E. J. Waring, M.D. London: 1868.

The Philosophy of the Bath. By Durham Dunlop, M.R.I.A. London: 1868.

The Forty-first Report of the Coombe Lying-in Hospital for the Year ending September 16th, 1867. Dublin: 1868.

Holden's Manual of the Dissection of the Human Body. Edited by Luther Holden and John Langton. Third edition. London: 1868.

On Varicose Diseases of the Lower Extremities, and its Allied Disorders, etc. By J. Gay. London: 1868.

Injuries and Diseases of the Jaws. The Jacksonian Prize Essay of the College of Surgeons, 1867. By Christopher Heath. London: 1868.

The Church of Christ a Broad Church; or, the Unity of Christendom. By a Physician. London: 1868.

Clinical Lectures on Disease of the Liver, Jaundice, and Abdominal Dropsy. By Charles Murchison, M.D., F.R.S. London: 1868.

Observations on Amputation of the Thigh. By William MacCormac, M.A., M.D., F.R.C.S. Dublin: 1868.

LECTURES
ON THE
PRINCIPLES OF SURGICAL DIAGNOSIS:
ESPECIALLY IN RELATION TO SHOCK AND VISCERAL LESIONS.

Delivered at the Royal College of Surgeons of England.

By F. LE GROS CLARK, F.R.C.S.,
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LECTURE VI.

Lesions of Spinal Cord.—Analogy with those of Brain.—Resistance of Spinal Column.—Fracture; Mode of Production.—Dislocation.—Diagnosis of Sprain; Extravasation of Blood; its Varied Position.—Simple Concussion.—Railway Concussion.—Shock.—Morbid Appearances.—Punctured Wounds.—Double Fracture.—Dislocation in Upper Cervical Region.—Complication of Encephalic and Spinal Injury.—Conclusion.

MR. PRESIDENT AND GENTLEMEN,—Whilst the physiology of the *spinal cord* is, in some respects, more defined than that of the encephalon, the complexity of its functions, as a centre of nerve-force, and as a conductor of that derived from the brain, together with the concentration, so to speak, of those functions within a very limited space at any given point, enhances the difficulties of identifying its special injuries. As surgeons, we generally have to deal with the spinal cord as a whole; the lesions to which it is obnoxious from violence rarely affect it partially, but implicate more or less completely all its texture, and consequently all its functions. Some of these effects are sudden, absolute, and speedily fatal; others are deferred, insidious, prolonged in their endurance, and destructive of health, and ultimately, perhaps, of life. But the pathological condition is the same in each, modified only by the element of time; arrested function from grievous injury in one case, and deteriorated organisation, with its long train of disastrous sequelæ in the other, leading to the same issue.

In some respects there is, as might be expected, a close analogy between the consequences of injury to the spinal cord and those of the brain; whereas, in others, the contrast is remarkable. Both are liable to concussion, to compression, to irritation, to apoplexy, and to organic changes resulting from inflammation; but the consequences of organic lesion, both immediate and remote, differ materially in the two, and are not similarly under the control of surgical treatment. We have seen that extensive lesions of the encephalon may occur without immediate material disturbance of function; nay, that loss of texture is not necessarily a fatal injury; and that, in compression, the removal of the offending cause, as in the uplifting of a depressed fragment of bone, may afford even permanent relief to the sufferer. Not so, however, in spinal injury. In the cord, every segment is, if I may be allowed the expression, a representative of the whole; and violence attended by organic lesion thus produces a concentrated effect, which renders these injuries so little amenable to surgical interference, and so commonly fatal.

In the skull, as in the pelvis, strength, and resistance to the effects of violence are due to solidity and form; in the spine, as in the chest, for obvious reasons, the important element of yielding elasticity is introduced, and constitutes the chief security against harm. It would be difficult to select, even in organic mechanism, a more beautiful exemplification of the adaptation of contrivance to a special and complicated purpose, than is presented by the spinal column; combining, as it does, free mobility with economy of muscular power, and security of the tender organ enclosed within its canal. The mechanism is perfect, and yet the security is not complete; and we here observe, as is still more noticeable in the shoulder-joint, that necessary defects are compensated for in the most admirable way; but that no miracle is wrought to reconcile incompatibilities. In the scapulo-humeral articulation, security against dislocation is important; yet freedom of movement is a still more urgent desideratum; and, consequently, the former is sacrificed to the latter. The bony configuration of the joint, and its lax capsule, afford every facility for free movement, and also for displacement: but this imperfection, as regards safety, is counterbalanced by the mobility of the scapula enabling it to follow the more extended movements of the humerus, and by the attachment, close to the fulcrum, of the rotator muscles. Nevertheless, dislocation of this joint is a common occurrence. And so likewise with the spine; if this long elastic lever is bent beyond its capacity of resistance, it yields and snaps. But, even in these injuries, it evinces the perfection of the arrangement existing for the preservation of its integrity: for it is the arch and body of the vertebra which, as a rule, give way; and dislocation and rupture of the intervertebral substance is the exception to that rule.

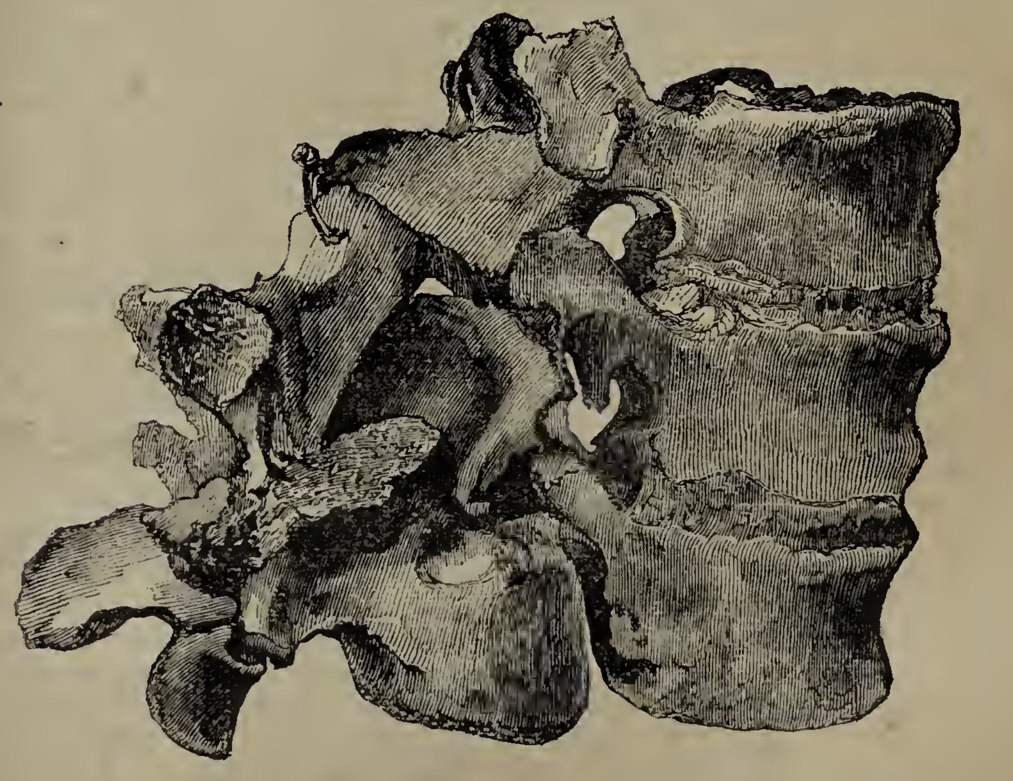
I fear that the brief time allotted to these lectures will not allow of my expatiating, at any length, on the various forms of injury to the spinal column: and I am not aware that it would subserve any good end in assisting me to classify the diagnostic indications of injuries to the cord. I may, however, remark that the inferior half of the cervical region, and the lower extremity of the dorsal, are the parts of the column most obnoxious to fracture—a generally admitted fact, I believe, and certainly borne out by my own experience. This is due to several causes: the mobility and relatively small development of the cervical vertebræ, and the horizontal facing of their oblique processes, tend to facilitate fracture and displacement in this part of the column; and the converse obtains in the lumbar region—a development which compensates for the enhanced liability to fracture at that part, dependent upon extended length of leverage. But this source of weakness tells upon the lower dorsal and upper lumbar regions, where the additional security obtained from the lateral support of the ribs is suddenly withdrawn. As regards the comparative immunity of the cord from concussion, no doubt it is in part due to the layer of cerebro-spinal fluid which is interposed between the arachnoid and pia mater; and I believe there is another important source of protection, which, I trust, some investigations in which I am engaged will enable me, at some future time, to demonstrate.

The manner in which fracture of the spinal column is produced, has a more important bearing upon the character of the injury which is sustained by the cord. Direct or indirect violence may break the backbone; but, in my experience, the latter is much more frequent than the former: the application of violence by which the column is bent forcibly forwards, is the most common cause of fracture. I have scarcely ever seen an instance of simple dislocation below the second cervical vertebra, though I have examined many such combined with fracture: indeed, such complication of dislocation and fracture in this region is the type of the majority of cases which have come under my observation.

I believe that my experience in this respect differs from that of some other observers, who have published statistical records of this class of injuries. It is true that the amount of fracture is, in many instances, limited to a thin segment of the body of one of the vertebræ involved, or, it may be, to the edge of the oblique process. But, I repeat that, in the many cases I have examined and have records of, some fracture, be it little or great, has complicated the dislocation in this region, in almost every instance.

In the dorsal and lumbar regions of the spine, simple dislocation is almost a physical impossibility; and rupture of the intervertebral substance, without fracture of the body of one or both of the vertebræ implicated, is of rare occurrence.

The preparation I have on the table is a remarkable example of this form of injury; and its singularity is enhanced by the history which was forwarded with it from the country, when it was sent to the Museum of St. Thomas's Hospital.



Fracture of Fourth Lumbar Vertebra, with dislocation backwards of Fifth.

It exhibits a fracture of the fourth lumbar vertebra, with complete dislocation backwards of the fifth. The arch of the fourth is broken perpendicularly, and wedged between the spinous and right transverse processes of the third. The fifth is completely severed from its connexion with the fourth, and lies directly behind it, the anterior part of the body of the former being in contact with the posterior part of the body of the latter; the lower border of the fifth does not extend more than a quarter of an inch below the lower border of the fourth.

The patient, a strong man, aged 20, received a blow on the back by the fall of a heavy weight. There was entire paralysis of the lower extremities. At the end of five weeks he had recovered sensation perfectly, and motion partially. He died, exhausted by sloughing of the nates, etc., seven weeks after the accident. His arm and leg had also suffered fracture, and the former had united. Such recovery of function could have occurred only where the lumbar region of the spine was the seat of injury.

Force which tends to produce fracture may, stopping short of that result, severely strain the ligaments of the spine. These cases frequently present themselves in hospital practice, though unfortunately we rarely have the opportunity of watching them beyond the relief of the early symptoms. Most of them recover; but in some few, more enduring mischief results. Local tenderness, defective innervation of the lower extremities, sometimes morbid sensibility combined with loss of power, and general deterioration of health, are symptomatic of the cord itself, or its membranes, being secondarily involved. This condition may be the consequence of violent muscular action, or of sudden twisting of the spine. Thus, I knew it to occur in an engineer, whom I attended with Mr. Pink, of Greenwich, and whose spine was violently twisted in working the engine of a steam frigate: he was unable to walk, and complained of severe pain in the lumbar region, and of acute tenderness at one spot. The pain extended down the right lower extremity, which was partially paralysed. After local depletion and protracted rest, he recovered; but six months elapsed before he was well. Another instance occurred in an acrobat, one of whose feats was to bend himself backwards in a most unnatural way. The same result is met with in some cases of violent concussion in railway accidents. The symptoms I have enumerated are not, however, to be regarded as necessarily implying irrecoverable organic change, or any change at all in the cord; the mischief may be purely meningeal in its nature. I may refer to a very common early concomitant of these injuries, viz.: hæmorrhage from the bladder, as suggesting that the kidney is the seat of inflammation and the source of suffering. I am satisfied, from repeated observation, that such is not the case. No doubt the blood is derived from the kidney, which suffered from compression; but, of the many cases I have witnessed, I have never had reason to suspect that nephritis or organic disease followed.

Extravasation of blood within the theca vertebralis may occur without fracture; but such instances, affording an opportunity of verifying the actual condition, are rare. I have a memorandum of a remarkable case of this kind, which was narrated to me but which I did not see. A man was struck violently on the back with a chain-cable; there were no immediate symptoms of spinal injury, but a paraplegic condition soon supervened, and extending rapidly upwards, destroying life by asphyxia. The theca was found distended with fluid blood, derived from a ruptured spinal artery. Paraplegia, supervening after an injury to the spine, is suggestive of hæmorrhage: and probably, in many instances, the protracted character of the symptoms, indicating concussion of the cord, may be due, as in the brain, to the presence of extravasated blood, which is slowly absorbed. But I am not prepared to say that the symptoms of pressure, in *fracture* of the spine, are *usually* in any degree due to extravasation of blood, either external to or within the substance of the cord. I am inclined to think not; although the red appearance, occasionally seen on section of a recently injured cord, is suggestive of the presence of effused blood, rather than of the consequences of inflammation. Certainly I have seen instances of fracture unattended by primary, or indeed any, symptoms of the cord being implicated. I have a record of several cases in which depression, mobility, and crepitus had indicated that there was fracture of the spinous process or arch of one or more vertebræ; and yet the patients have recovered without harm being done to the cord.

The following case may serve to exemplify this condition. A porter was knocked down by a cab, the wheel of which, he thinks, struck his back. He could walk, but with difficulty. His chest was contused, and he was suffering from general symptoms of shock; but there was no paraplegia, nor other symptom of injury to the spinal cord. The spinous processes of two of the upper dorsal vertebræ were freely moveable, and crepitus was distinct. This patient made a good recovery. Instances of this class are not very rare; and the injury is generally the consequence of violence directly applied to the spine.

In one case under my care, seven or eight years since, the injury was still more severe; in fact, the nature of the lesion associated with its consequences is, in my experience, unique. A painter had fallen from a ladder, thirty feet high, and was impaled on some spiked area railings. One spike entered the lumbar mass of muscles, just above the sacrum; another entered the gluteal region. There was no indication whatever of any visceral or spinal injury. He had a violent rigor on the fourteenth day, and died on the sixteenth. On examination there was found to be a transverse fracture through the lower part of the second dorsal vertebra; and pus burrowed from this spot beneath the pleura, forming a bulging swelling there; but there was no displacement, the anterior and posterior ligaments being entire. The spinal cord was softened, and showed, under the microscope, exudation corpuscles and other inflammatory products. The softening extended in both directions, but more upwards, and was more apparent in the anterior than in the posterior columns.

I have notes of another case, resembling the preceding in the mode in which the injury was inflicted, the patient being impaled by falling, with his abdomen downwards, on some spikes. He survived forty-eight hours; and, on examination after death, the extremity of one of the spikes, which had entered near the umbilicus, was found lying across the rectum. The centre of the body of the second lumbar vertebra bore an indentation, corresponding to the point of the spike which had been thus broken off, yet this patient had no spinal symptoms.

Simple *Concussion* of the spine occurs as the consequence, usually, of a fall on the nates or back. I say concussion, because the analogy in the symptoms which characterise this condition and so-called concussion of the brain, justifies the use of the expression.

The shock in spinal concussion is not, generally, severe, even when the paraplegic condition is well-marked. The existence of this injury is determined principally, as in concussion of the brain, by negative evidence. The absence of local signs which indicate fracture, the mode in which the injury was produced, and the amount of violence applied, rendering it improbable that the spine is broken, is the negative evidence to which I refer. Yet, in some cases, where the symptoms are persistent, doubt must remain as to the true nature of the lesion, and a cautious prognosis is, therefore, required.

One of the earliest cases which I remember, as well as one of the best marked, occurred to a gentleman who was thrown from his gig, and was landed, in the sitting posture, on a heap of stones by the road-side. The general symptoms of shock were not severe, and the patient's health did not seriously suffer; but he was entirely paraplegic for a time, and did not quite recover until after the lapse of some months.

As the diagnostic indications of this injury are well exemplified in the following instance, I will give the details of the case, which occurred in my hospital practice about two years since. The patient, a man thirty-six years of age, weighing 11½ stones, gave the following account of himself. He was tripped up in the road, and fell heavily on his left hip, and then turned over on his back. On trying to rise he failed, not having any power of movement in either lower extremity. He was at once brought to the hospital. On admittance, he complained of pain in the lumbar region, and there was slight tenderness on pressing the spinous ridge of this part; but careful examination failed to detect any irregularity or other sign of mechanical injury of the vertebral column. There was entire loss of power in his lower limbs; he could not even move a toe; sensation was impaired; he said his legs were numbed. There was slight priapism, and he was unable to micturate. His pulse was 60, but there were no signs of well-marked collapse. On the third day he was able to move his toes a little. On the ninth day sensation was perfect, but he had made very little progress in regaining muscular power. Nearly three weeks elapsed before he was able to dispense with the catheter; and at the expiration of five weeks he was still almost as helpless in moving any part of his lower extremities. He remained in the hospital for four months, his health being tolerably good throughout. He was then able to get about very fairly, but with a shuffling unsteady gait. I have not given any account of the treatment, as it is unnecessary to my purpose. It consisted in rest, which indeed was compulsory, and attention to the bladder and the general health. I have no memorandum of the condition of the urine, which I believe was healthy.

The causative accident in this instance was slight, too trivial to produce fracture, and the symptoms were not those of sprain. There were no physical signs of displacement; yet, the paraplegia was marked; but not including corresponding loss of sensation, which would have been present if a displaced vertebra had pressed on the cord. The slow recovery was a gradual confirmation of the diagnosis, that fracture with displacement was not the injury to which the symptoms were due.

Yet, I must admit I cannot dismiss from my mind the impression that, in these and similar protracted cases, there is something more than simple concussion needed to account for the duration of the symptoms; probably extravasation of blood into the theca or canal, which was slowly absorbed. I do not think that the unequal effects produced on the several columns of motion and sensation forbid this supposition, for this effect is by no means uncommon, being usually in favour of sensation, where the inequality is noticed, and indicating that the anterior half of the cord, and part of the lateral columns, are the parts implicated. A child, 3½ years old, was admitted under my care, who had been run over by a heavy sand-cart, sixteen days previously; the wheel passed over the loins. There was nothing particular noticed at the time, except her inability to walk as well as usual. This disability increased, and, when seen by me, she could scarcely manage, when held up, to shuffle her feet along. She complained of no pain, had no difficulty in passing her water, and the sensibility of the legs seemed to be in no degree impaired. On careful examination there was nothing abnormal to be observed in any part of the spine. The treatment consisted in rest, and friction of the back with liniment of ammonia. She remained in the hospital five weeks, and then left quite well.

A remarkable case was mentioned to me by the late Dr. Dyer, who acted for the Brighton Railway Company. A man was injured in a collision in the tunnel, four or five miles from Brighton. He walked this distance with some difficulty into the town; and within twenty hours became entirely paraplegic. He recovered slowly; and after a lapse of two years was able to walk as well as before the accident. One spot on the back was always tender, and continued so still at times. The analogy between this case and a similar but fatal injury which I have already mentioned, seems to point to hæmorrhage as the probable cause of the protracted symptoms.

In the category which I am now considering a class must be included, which have assumed an adventitious importance, in consequence of the claims of the sufferers to pecuniary compensation for injury received in railway travelling. Although I have seen many such cases, especially when acting on behalf of one of the railway companies, I am free to admit that the multiplication of my notes respecting the various complaints of the patients, has by no means simplified the classification of their ailments, nor facilitated the reduction of their symptoms into such a code as may claim to be justly regarded as diagnostic of this special form of concussion. I speak of it as special, because there certainly are distinctive characteristics attending railway concussion of the spine, which are exceptional, to say the least, in a similar injury otherwise produced. And this exceptional character consists in the curiously diversified results which are met with; sequences which seem to be more allied with general nervous shock, and consequent deteriorated innervation, than upon special shocks or concussion of the spinal cord. Indeed, it is difficult to explain many of the sequelæ of these injuries without supposing that the organic nerves, and therefore functions, are seriously implicated; that the excretory functions are imperfectly performed; that the organic chemistry is deranged; and that the source of life, the blood, is poisoned.

Again, as in hysteria, obstacles beset the surgeon in his honest effort to disentangle the confused web of symptoms, by the admixture of that which is real with that which is imaginary, exaggerated or assumed. The motive for exaggeration is sufficiently strong to induce self-deception, and therefore to raise sceptical surmises in the mind of the surgeon. I have no doubt that mental shock acts an important part in aggravating many, and even in inducing some, of these symptoms; and it is impossible to ignore the fact that the mischief, demonstrated by even physical signs, extends to the encephalon, as in loss of co-ordinating influence over the muscles; or, again, in deterioration of mental power, or of some particular faculty, such as memory or readiness of expression. In some instances the shock is received especially on the spine, as when the sufferer is sitting with his back so placed as to experience in this part the violence of the concussion. When this is the case, the symptoms are usually immediate and decisive, and assume very much the character of spinal shock from other causes. Yet, even in these instances, I have observed that, very often, the sequelæ are more varied and protracted than in ordinary concussion; a circumstance which is probably explained, in a measure, by the influence of emotion; as I think I have noticed it more frequently in women than in men. But in some of the most aggravated cases I have encountered, this direct injury has not been noticed, and could not have occurred, from the position of the sufferer at the time of the accident.

Concussion from a blow on the back is not always immediately followed by spinal symptoms, as is shown in a case which was under my care about four years since. A wheelwright had been knocked down by a severe blow with the fist on the upper dorsal region. There was considerable shock produced; and in some thirty-six hours afterwards he began to complain of pain extending downwards from the point where he was struck; and partial paralysis of both arms gradually supervened, attended by diminished sensibility; the lower extremities retained their natural state. The patient quitted the hospital, at his own request, whilst still very helpless.

In another case, reported in one of my clinical lectures, a young sailor was thrown violently down by catching hold of the revolving wheel of a carriage which struck him. When brought to the hospital, he made light of his injury, and complained only of a little tenderness on percussion over the upper dorsal region. His breathing was peculiar, a long inspiration followed by a rapid expiration. He soon after vomited; and, during the night, had a succession of epileptiform fits, attended by violent emprosthotonos and unconsciousness. He had never had a fit before. Yet, in the course of a few days he expressed himself as feeling quite recovered, and requested to be dismissed.

I have referred to these cases as presenting some features allied to the consequences of railway injury; and yet others in marked contrast with each other. The age of the former patient was sixty-four; that of the latter, twenty-two; an important element in its influence on the sequelæ of these injuries.

In order to exemplify what I have been saying respecting this class of railway injuries, I will enumerate the principal symptoms I have observed in the instances which have come under my notice, and make a few remarks on them. I think this will be preferable to occupying your time by the detail of particular cases. Spinal concussion may be immediate and well-marked; or the indications of spinal mischief may not supervene until after the lapse of some time. General shock is often, but not always, in excess of that which accompanies simple concussion; in some instances the collapse is great, accompanied by insensibility, but without evidence of injury to the head. Reaction, under such circumstances, is tardy and irregular. Numbness and tingling, sometimes local, sometimes universal, is complained of. Other symptoms are, rigor, continued sickness, intermittent fits of numbness, excito-motor spasm in the limbs, violent throbbing sensations, or sense of heat or cold in the head or other parts, want of sleep or continued drowsiness, confusion of intellect, enfeebled muscular power, deafness, defective sight accompanied by ocular spectra, hyperæsthesia in some parts, but especially in the spine; great emotional excitability. Besides these I could enumerate other more especial symptoms; but they have been peculiar to isolated cases. With rare exception, extreme sensitiveness of the spine is present in these cases, and more frequently located at some particular part, than distributed over the whole column. Again, this pain on pressure is sometimes referred to the lumbar muscles, at others to the spinous ridge. In some of these cases the patients entirely recover after a longer or shorter interval; in others, the health is permanently enfeebled, and a life of protracted discomfort is entailed; or the sufferer sinks, emaciated and exhausted, into a premature grave; or becomes the victim of some acute disease, the destructive tendency of which his defective organism is incapable of resisting.

It will be perceived that many of the foregoing symptoms and signs may be referred to what we are accustomed to regard as concussion of the spine, but many also are due to general rather than special nervous shock. In some instances there is probably meningeal mischief; but the indications in others clearly point to organic change in the cerebro-spinal centre.

I have already shown, in a preceding lecture, how powerful an influence emotional shock or physical concussion may exercise on organic vitality; and I think it not inconsistent with acknowledged facts, to affirm that protracted functional disturbance, or even fatal disease, may be the consequence of a rude shock, simultaneously, to the nerve-centres of the emotions, of organic and of animal life. I am, therefore, disposed to regard these cases of so-called railway spinal concussion as, generally, instances of universal nervous shock, rather than of special injury to the spinal cord. At the same time, I admit that in this class of cases we meet with instances of simple concussion, but I see no reason for taking *them* out of the category of concussion of the spine from other causes.

I will close these remarks by narrating the history and *post mortem* appearances of a fatal case of injury to the spine, where no fracture occurred; and also the microscopic appearance presented in a case which was examined by my friend, Mr. Lockhart Clarke, who has kindly supplied me with a drawing, from which the accompanying diagram has been made, of the affected part.

A female child 2½ years old, was admitted into the hospital, under my care, in October 1866, having been thrown down in the street by a passing cart, the wheel of which went over the abdomen. The child was unable to walk, but moved her legs and did not seem to be seriously hurt; sensation did not appear to be impaired. The bladder retained its contents, and catheterism was required. The feebleness of the lower limbs increased; and in the course of a few days, the paraplegic condition was complete, including entire loss of sensation in the lower extremities. The child survived rather more than three months, varying as regards her general health; and usually dull and indifferent to all around her, with occasional transient fits of animation. At the autopsy, the bladder was found thickened; there were inflammatory deposits in the lungs; and the veins in the lower half of the abdomen and spinal canal were much congested. There was no fracture nor displacement of vertebræ; the membranes were healthy, although there was a considerable quantity of fluid in the lower half of the arachnoid space. Opposite to the eighth dorsal vertebra, the normal size and healthy appearance of the cord suddenly ceased; and below this point, nothing was left but a string of soft atrophied nerve-matter. On cutting into it at different parts, there was no trace of hæmorrhage anywhere, and the investing membranes were in no way diseased. When examined microscopically, the cord was found to contain inflammation corpuscles, for about three-quarters of an inch above the point of apparent distinction between the healthy and diseased cord; and in the lower part they were extremely numerous and of large size, but there was no trace of blood.

What might have been the proximate cause of this injury to the cord it is difficult to say. The most probable surmise is, that blood was extravasated; and yet I failed to discover any trace of it within or around the cord. The microscopic condition of the affected portion of the cord enables me to say with more certainty that inflammation, softening and disintegration preceded the atrophic state of its extremity; a change very closely allied to that which is witnessed after mechanical lesion of the same part.

The case of Mr. Lockhart Clarke to which I alluded, is published in the Transactions of the Pathological Society for 1866. It is, I believe, the first instance in which the peculiar degeneration in these special injuries has been described and figured; I venture, therefore, to give an abstract of the symptoms and microscopic appearances.

The gentleman from whom the spinal cord was taken, had been the subject of a railway injury 3½ years before his death. His health and physical power gradually failed, leaving his intellect unaffected; his gait became unsteady, somewhat like partial intoxication, but without jerking or twitching; and his speech had latterly become thick and hesitating. The cortical substance of the brain was found generally pallid and soft, particularly on the under surface of both anterior lobes. The spinal cord was generally wasted and shrunken, this change chiefly depending upon a diminution of the antero-posterior diameter, which, in many places, was not more than equal to half the transverse. This was especially the case in the upper portion of the cervical enlargement. On making sections, it was found that, of all the *white* columns, the posterior were exclusively the seat of disease, being darker and more opaque and dense than the antero-lateral. When examined, both transversely and longitudinally, under the microscope, this appearance was found to be due to the presence of a multitude of compound granular corpuscles and isolated granules, and to an exuberance of wavy fibrous tissue replacing the obliterated nerve-fibres. The posterior horns, at their extremities, contained an abundance of isolated granules, and the anterior cornua were smaller than natural. This patient had suffered no fracture, wound, nor material contusion, but simply from the shock consequent on the collision. (See Figs. 1 and 2.)

There is a close resemblance between this condition of the cord, and that which is described by a recent author* as obtaining in simple locomotor ataxy, not dependent on injury, where the morbid changes are limited, with rare exception, to the lumbo-sacral region. In this condition, the posterior columns of the cord and the posterior roots of the spinal nerves are found diseased, the morbid appearances consisting sometimes in grey degeneration, or in a gelatiniform or translucent condition, with a diminution of consistency, or in induration (sclerosis). In some instances the posterior cornu of the grey matter is involved. The diseased structure presents oil-globules, and is made up of atrophied and degenerated nerve-tissue, connective tissue in excess, and amorphous granular matter.

Of bruising or crushing of the cord, in fracture or dislocation of the spine, it is necessary I should say but little; the experience of hospital surgeons scarcely varies, I apprehend, in regard to the diagnostic characters by which these injuries are identified. It is true that the consequences of pressure may be present without fracture, and obscurity may thus attend a case, in which the local physical signs are doubtful or cannot be detected. But, with rare exceptions, the nature of the accident, immediate and well-defined paraplegia, including the bladder, early priapism as a consequence of spinal irritation, subsequent alkaline changes in the urine, due, probably in a measure, to the same cause, leave no doubt, even when the local signs are not clearly marked, that fracture with compression of the cord exists. The subsequent progress of the case confirms the diagnosis; and in fatal instances the extension of inflammatory softening deprives fresh parts of the trunk and limbs of power of motion and sensibility, until the chief centre of respiration is reached, when the patient dies asphyxiated, if he do not succumb at an earlier period to exhaustion or some organic complication. Yet, there are exceptional cases; and as I have pointed out that fracture of the processes, arch, or even the body of a vertebra, does not necessarily imply such displacement as will compress the cord, so, on the other hand, complete paraplegia after injury may exist without fracture; but whether persistently so without compression or mechanical lesion I am not prepared to say. In other exceptional cases, in which paralysis of voluntary movement and the loss of sensibility are incomplete or disproportioned, or reflex action is increased, we may associate these peculiarities with lesion of particular parts of the cord. Thus, as I have already remarked, complete suspension of voluntary motion and diminished sensibility indicate lesion of the anterior half of the cord, including the grey matter and part of the lateral columns; whereas, partial loss of voluntary movement, and complete or nearly complete loss of sensibility, accompanied by heightened reflex activity in parts receiving their supply of nerves from below the seat of injury, may be associated with lesions of the posterior columns and the grey matter, in any limited part of the cord. But when the same columns are deeply affected for at least two or three inches, the anæsthesia is accompanied by the loss of muscular co-ordination in the limbs; which, together with acute shifting pains and other symptoms, constitute locomotor ataxy.

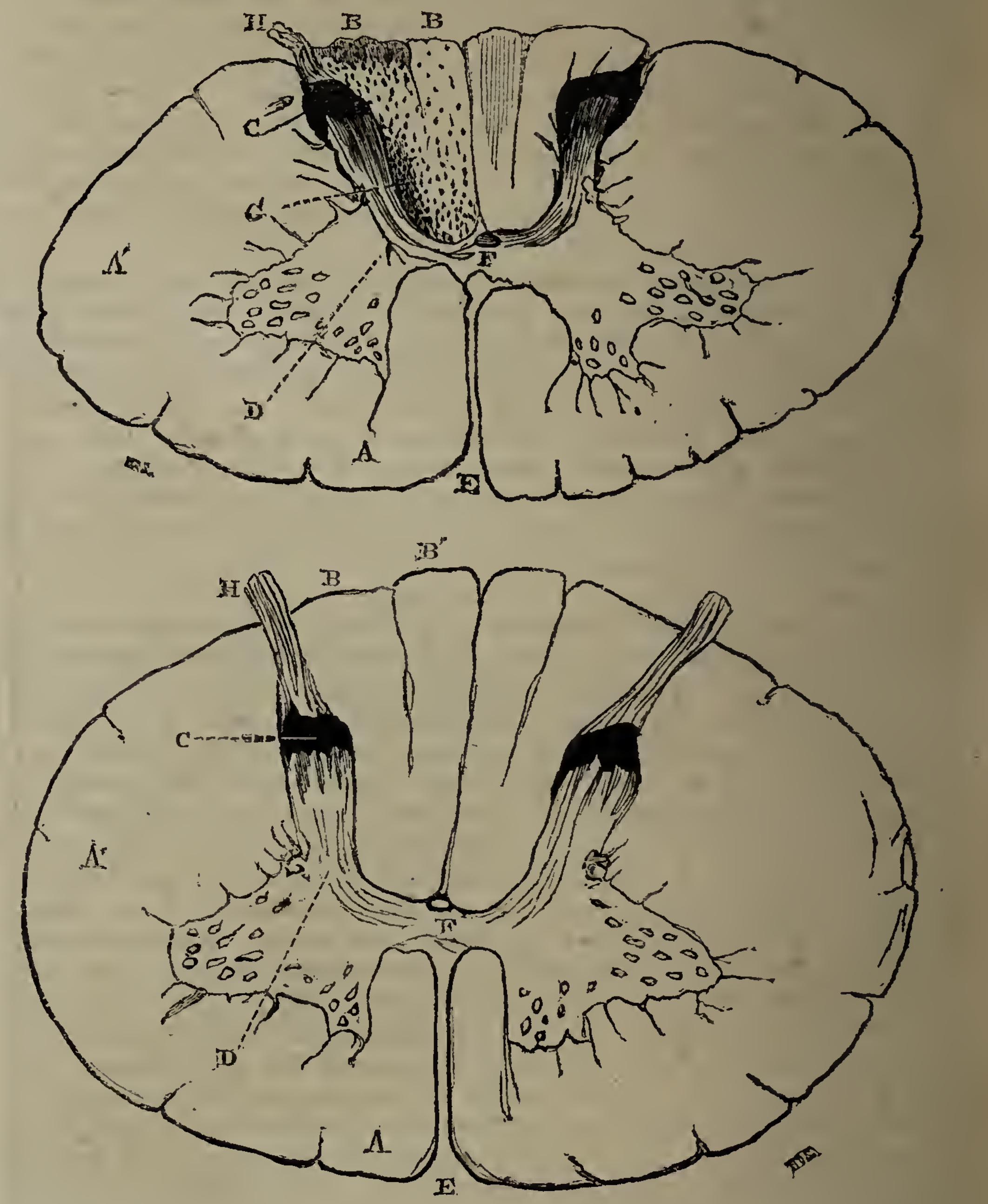


Fig. 1.—Transverse section of human spinal cord through upper third of cervical enlargement, from a case of injury in railway collision. Cord very much flattened from before backwards, as seen in comparison with a corresponding section (Fig. 2) from a healthy cord.

A A'. Antero-lateral column of left side. B B'. Outer and inner portions of posterior column. C. Gelatinous substance of posterior gray horn. D. Anterior gray substance or horn. E. Anterior median fissure. F. Commissures between the lateral halves of the gray substance, containing the oval canal.

The antero-posterior flattening is due to atrophy of the posterior columns. The dark dots represent the cut ends of longitudinal nerve-fibres, which are scanty in the intervening space between B and G, and have nearly disappeared in the inner division, B', of the posterior column.

But, as I have remarked, it very rarely falls to the lot of the surgeon to witness these symptoms as the consequence of mechanical lesion, and still more rarely to verify them by *post mortem* examination. The phenomena of reflex action are most commonly noticed, in association with paralysis, whether the lesion be in the anterior, posterior, or lateral column. No definite conclusion can, therefore, be drawn from this circumstance, beyond the fact that the cord is the seat of lesion. Relaxation of the sphincters is often enumerated among the signs of spinal compression, or functional deterioration of the cord from other causes. I believe this is an error; the reflex action of these annular muscles is stimulated, when the source of their innervation is not directly implicated, in common with that of other muscles; but the voluntary power which in health, may be and often is exercised over these muscles, is suspended; and, as I have already explained, the reflex action alone is insufficient to resist the expulsive power of the intestine.

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* Dr. Radcliffe, in Reynolds's *System of Medicine*.

A case which has been recently under my notice illustrates this condition. The patient, an elderly man, is weak in the lower limbs, and there is defective co-ordinating power, especially apparent on any fatigue being incurred. He is rarely able to evacuate the bladder, even partially; but habitually uses a catheter for the purpose. Under ordinary circumstances the reflex power of the sphincter is sufficient for the retention of the contents of the bowel; but if there be any disposition to relaxed bowels, or if the peristaltic movement be stimulated by medicine, he is quite incapable, by any exercise of volition, to resist the expulsive force, although he is conscious of the necessity of making the effort.

The period of survival in fatal traumatic lesions of the spine bears, *cæteris paribus*, a direct proportion to the interval between the chief respiratory centre and the seat of injury. The general condition of the patient frequently, I may almost say usually, is not characterised by any corresponding depression or downward tendency; and it would be an error to augur favourably of the issue because the intellect is clear and active, and the organic functions are healthily performed. Vivid dreaming, though not necessarily of a distressing character, I have noticed as a frequent symptom towards the close of life. The steady extension of paraplegia upwards is a sure measure of the progress of the mischief, and an indication of its impending fatal result.

Penetrating wounds of the cord, without compression, are rare in my experience, and I am tempted to quote the following interesting case, as exemplifying this form of injury and the attendant symptoms, together with some accidental concomitants which are met with in lesions of the cord.

A labourer, aged 24, was engaged in working in a tunnel near Sydenham, when a large mass of earth fell upon him, throwing him on his side, and doubling his legs up under his body, so that his toes were almost forced into his mouth. When lifted up, his lower extremities were paralysed and insensible, but he was conscious and collected. When admitted into the hospital he was in a state of collapse, and complained of pain in the back and crest of the ilium; extravasation, extending from the latter spot along the lumbar spine, prevented me from ascertaining, by such manipulation as was justifiable, whether the signs of fracture were present. The bladder was paralysed. In the evening he had slight sensation when pinched in the thighs. On the following day there was moderate reaction, and slight sensibility in the lower limbs. On the fifth day the urine became ammoniacal; on the sixth day there was blood mixed with the mucus in the urine; and he complained of pain in the hypogastric and iliac regions. On the ninth day he could feel as low as the knees; the urine continued bloody. On the eleventh day, sensation had extended still lower, and there was evidently an expulsive effort made when the catheter was partly introduced, as the urine escaped in considerable quantity, if it was then withdrawn. On the thirteenth day he complained of a peculiar sensation of numbness all over him, and of fluttering at his chest and rising in his throat. When pinched in the upper extremities, he could only just feel it; but he could move and make use of his arms and hands. His pulse was very rapid. Some brandy revived him. On the following, the fourteenth day, he was seized with a similar paroxysm. The muscles of the upper extremities were at intervals in a state of violent spasm; his face was expressive of extreme anxiety, and he rolled his head violently from side to side. He complained of an inward consciousness of loss of sensation, and earnestly asked those around him when this feeling of an impending fit would pass off. There were intervals of rest. His heart beat with excessive violence and rapidity; and on listening to it a peculiar ringing sound was audible at its base. The respiration was hurried, but unaccompanied by mucous râle. He expired quietly on the following morning, without dyspnœa supervening.

On examination, the brain was found healthy. In the spine, the left transverse processes of the first, second, and fourth lumbar vertebræ were fractured. The bodies of the last dorsal and first lumbar were broken through obliquely, from the right side downwards. There was scarcely any displacement visible from the front, but there were spicula of bone projecting backwards from the fracture into the spinal canal; and opposite to these was a small wound penetrating the dura mater, from which a small quantity of nerve-pulp protruded. On laying open the theca, the substance of the cord appeared to be very much softened in this situation, and there was a less degree of softening for three or four inches upwards; the pia mater covering this portion was injected. A little blood was effused beneath the pia mater at the seat of injury. Microscopic examination of the softened portion of the cord exhibited numerous aggregations of compound granule cells, some of which were seen in the upper portion of the cord, above the seat of softening. The pelvis of either kidney was inflamed, and there was a patch of lymph in the left.

Double fracture of the spine is occasionally met with; but, in my experience, this is a rare occurrence, where there is a wide interval between the injuries. It is most likely to occur, where the force producing the fracture continues to operate, or has not fully expended itself by breaking the spine at one point. The symptoms would be referred to the upper injury, supposing that the cord is compressed at each fracture. I have notes of a case of this kind, in which a young woman was crushed by a falling woolpack. She survived for some days, and the *post mortem* examination showed a comminuted fracture, with compression of the cord at the first lumbar vertebra. The second fracture was also comminuted and involved both the arch and body of the second dorsal vertebra, but without such displacement as to compress the cord; yet the texture of the cord at this spot was discoloured on the surface, and presented a diffused clot in its interior. The young woman's symptoms were somewhat peculiar, and indicated that the primary and more severe mischief was at the upper lumbar fracture. She had no sensation, properly speaking, below the mammæ, for she was not conscious when she was touched or pinched; yet she said that her feet felt swollen as if they would burst, and she had tingling sensations, as of the presence of pins and needles, in the lower extremities. The muscles of the legs could be excited to action by tickling, and she was conscious when her bladder was distended, though she could not evacuate it.

Of simple dislocation in the upper cervical region, death is the immediate consequence. The following case of traumatic disease thus terminating is an interesting instance in point, and will serve to exemplify the condition of the patient as the disease progressed.

A warehouseman, aged 45, was admitted under my care in 1864. His history was that sixteen months previously he was knocked down by a horse, and fell on his head, which was cut, and his back was bruised. He was stunned for a time, but soon returned to his work, though unable to rotate his head for two days. Five months afterwards his health began to fail, and prominence of the spine with pain in the dorsal region followed; he was unable then to rotate his head, except to a limited extent. This last symptom was intermittent—that is, he described the movement to be entirely suspended for a time, and then the bones suddenly slipped into their places, and free movement was restored; the apparent slipping out of position was as sudden. The intervals during which he enjoyed free movement extended usually to several weeks. When admitted, he could walk, and the sensibility of the lower part of the trunk and extremities, and command of the bladder, were natural. The head was fixed; the axis was very prominent, and the atlas seemed to have slipped forward; the lower dorsal spines were prominent and tender. A few days after his admission, he was seized with sudden dyspnœa and paralysis, and soon expired.

Autopsy.—There was caries in the dorsal region of the spine. The odontoid process of the axis was seen close to the posterior margin of the occipital foramen, its surface being carious and denuded of ligaments; the transverse ligament of the atlas had also disappeared. The upper extremity of the spinal cord appeared quite crushed and pulpy, and the lower portion of the medulla oblongata was also soft. The brain and its membranes were healthy; but much cheesy matter was found in the dorsal part of the vertebral canal, in front of the dura mater.

The condition of this patient, as described by himself, clearly indicated the state of the cervical vertebræ, as verified by dissection; yet his description could scarcely be credited, on account of its improbability. The explanation probably is, that the moderator ligaments remained to support the relations of the atlas and axis, after the transverse ligament had given way by ulceration; or the converse might have been the case. There was no effort at repair by anchylosis.

As an illustration of the obscurity sometimes attending the diagnosis of injuries of the head and spine, and of the importance of giving a cautious prognosis, I will quote this final case which was recently under my care in the hospital, of the grave and complicated nature of which I was unsuspicious during the time that the patient survived.

A married woman, aged 58, was admitted in June 1865. She had been thrown from a cart and fell on her face; but her husband, who was with her, thinks that the wheel did not pass over her. When brought to the hospital, she was much agitated, and complained most of pain and stiffness in her neck, and of her jaw. The lower jaw was fractured in two places; and there was a diffused swelling on the right side of the neck, extending below the clavicle. The slightest movement of the head occasioned pain in the neck. The left ear was much torn, and the face was lacerated in several places. The injury of the jaw was attended to, and an ice-bag was applied to the neck. She passed a restless night, and complained of a sense of suffocation when the jaw-bandages were tightened; otherwise she seemed as well as could be expected, considering the nature of her injury, as far as it was apparent. On the second morning, the cervical swelling had much subsided, and she expressed herself as feeling better, and imprudently sat up, outside her bed, to wash herself. After returning to bed, and whilst sitting up, her face suddenly became livid, and she fell back dead. Besides the injuries enumerated, the *post mortem* examination revealed the following lesions. The brain was very soft, and there was bruising of the inferior surface of the anterior lobes of the cerebrum, with slight extravasation of blood extending as far as the white substance. There was a fissure in the skull, passing through the left side of the cribriform plate of the ethmoid, and reaching back to the optic foramen. There was some blood effused between the dura mater and the left cerebellar fossa of the occiput; and there was a fracture in the same situation, extending into the left jugular fossa. The spinous process of the sixth and seventh vertebræ were broken off, and there was abnormal mobility between the axis and third cervical. On their removal, it was found that the connecting ligaments and intervertebral fibro-cartilage were ruptured, so as to allow of considerable movement of the second vertebra forwards on the third, but of very limited movement backwards. The upper part of the spinal cord was crushed; but the second and third vertebræ were not broken.

This case is remarkable for the entire absence of cerebral symptoms, such as might have been expected as a consequence of the injury to the skull and brain; and also for the fact that the spinal displacement did not occur earlier. That this complicated mischief was the result of the fall rests on the assertion of the patient's husband; but the external contusion seems to be suggestive that the wheel of the vehicle had passed over the neck. The interest of the case is enhanced by the fact that the rupture of the intervertebral substance was unaccompanied by fracture of either of the cervical vertebræ implicated—a circumstance which would have been scarcely possible in any other region of the spine, and is of very rare occurrence even in the cervical.

In the preceding remarks, I have kept in view the relation of shock to the various injuries which we have been considering. In other visceral lesions, especially those of the abdomen, the symptoms of shock are more sharply defined than where they are complicated with injury to the cerebro-spinal nerve-centre. In shock, the appeal is specially and directly made to the cyclo-ganglionic system of nerves, and organic life is primarily affected; the functions of animal life are involved secondarily and by sympathy. In lesions of the brain and spinal cord, this order of phenomena is inverted.

I have often been struck with the limited amount of shock which, as a rule, accompanies even severe lesions of the cerebro-spinal centre; whereas, in structural injury of other viscera, especially of the membranous organs of the abdomen, the shock is immediate and fully pronounced. The evident explanation of this contrast is, that the abdominal membranous viscera are largely supplied by the cyclo-ganglionic nerves, and that the ganglia themselves are implicated, more or less, in the hurt, even where mechanical violence is unattended by textural lesion.

I had still much to say, had the time permitted, on some other lesions of the cord, including tetanus; and I feel that even this short sketch, imperfect as it is, is rendered still more incomplete by the omission of some comments on operative interference in fracture of the spine. I entertain an opinion decidedly adverse to any such proceeding; but I feel it would be impracticable for me to represent fully my reasons for this opinion, at the same time that I do justice to the arguments which have been urged in favour of operating, without extending this lecture beyond the prescribed limits; I am compelled, therefore, reluctantly to acquiesce in this omission, and also to relinquish my original design of including in the present course other visceral lesions, which abound with elements for illustration in their many and varied phases.

If the confidence of the Council should be extended to me during another season, and I am spared to realise my wish, I may hope to complete the present division of my subject; and also to place before you, in a collected form, the results of my experience in other visceral lesions in association with shock.

I feel that the value of the remarks I have thrown together in the preceding lectures, bears no proportion to the importance of the subject, or, I may add, to my own anxious desire to do justice to it in such limited space, and in the time which has been at my disposal to collect and arrange my materials. Respecting these materials I may say one parting word. My illustrations, in nearly every instance simply typical of the class to which they belong, have been drawn exclusively, or almost so, from my own cases. Yet, I trust it may not be inferred that, in so making my selection, I have been unobservant of the vast store of facts which have been within my reach, in the practice of my colleagues, during the quarter of a century that I have been on the surgical staff of St. Thomas's Hospital, nor unmindful of the labours of others in the same field of scientific surgery. Had I been so negligent, I should indeed have done violence to my own sense of duty, and have been heedless of becoming modesty in my endeavour to fulfil it; at the same time I should have negatived those principles which I sought to establish in commencing this course. I may venture to claim that the opinions enunciated have not been hastily formed; and the records of the cases, by which I have exemplified and supported these opinions, may possibly be regarded as possessing the merit, *quantum valeat*, of being an impartial chronicle of my professional experience.

To my colleagues on the Council, and to the visitors who have honoured me, I beg to offer my acknowledgments for the compliment which is embodied in their attendance at these lectures; and especially I thank you, Mr. President, for the encouragement your presence has afforded to me,—an attention which I the more appreciate, as I cannot but be aware that the claims upon your time are such as might reasonably have excused you for absenting yourself from the chair on these occasions. Amongst my auditors I have recognised some of my former pupils. This testimony of their regard is a gratifying assurance to me that the time we have spent together in the lecture and dissecting rooms, and in the hospital wards, is not without its agreeable reminiscences to them; whilst it has left to me the valued heritage of many an enduring friendship.

NOTES ON CRANIAL MALFORMATIONS.

By ALEXANDER MACALISTER, L.R.C.S., L.K.Q.C.P.,
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THE human skull is the subject of an endless series of minor variations; indeed, so numerous do we find these, that it is proverbial that no two crania are absolutely alike. These variations, however, are usually matters of minute detail, and seldom, to any extent, interfere with the typical oval shape of the head. In a few rare cases, however, we do meet with abnormally developed crania, characterised by marked peculiarities of configuration quite independent of race-variations. One of the most remarkable of these, is the form known as the scapho-cephalic, or boat-shaped skull, so named by Von Baer, on account of the curious laterally-flattened tempora and keel-like vertex, prolonged into a sharp angle behind.

The history of the recognition of this deformity is interesting. The first notice of a case of the kind is in Sandifort's *Exercitationes* (Lugd. Batav., 1785, lib. ii, cap. i); but this example is imperfect, as being the subject of disease; also, in the *Museum Anatomicum* of the same author, occurs the second mention of this skull-form. The third instance is described by Blumenbach, in his first decade of skulls of various nations; the fourth and fifth by Virchow, in his paper, Ueber den Cretinismus und über Pathologische Schädelformen, 1851). Dr. Minchin, Professor of Botany in the Royal College of Surgeons of Ireland, in the *Dublin Quarterly Journal* for November 1856, described and figured a sixth instance in a living boy, and two skulls from the Museum of the Royal College of Surgeons in Ireland, and a calvarium from the same collection. Lucæ, in a paper on the Architecture of the Human Skull, published in Frankfort in 1857, mentions two examples of the same deformity; and the same author, in a more recent paper, Zur Morphologie der Rasse Schädel, published in 1861, states that he has seen two others of the same form, one being interesting as an hereditary malformation. Von Baer, in the *Memoires* of the Imperial Academy of Science in St. Petersburg (7th series, vol. ii, No. 6), has given description of two other examples; and a sixteenth is given by Welcker (*Untersuchungen über Wachsthum und Bau des Schädels.* Leipsic: 1862). More recently, Gustav von Düben has devoted much time and attention to the elucidation of the nature of this form of cranium; and has published notes of four crania, and three living instances of scaphocephalus, in his paper, "Kranier med tidig förbening af pilsömmen",* Stockholm: 1864. Professor Turner of Edinburgh, in the *Natural History Review* for January 1864, describes two skulls, a calvarium and a cast, illustrating this deformity; he also refers to three instances in living persons; and Dr.

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* I take this opportunity of returning thanks to my friend Dr. Minchin for his kindness in allowing me the use of a translation of this paper from the Swedish; as but for his assistance, it would otherwise have been a sealed book to me.

Thurnam, the eminent ethnologist, in the *Natural History Review*, tabulates twelve cases of the true boat-shaped skull. These forty-two examples are the only instances which I can find on record; and to these I add the following case.*

This example, a living instance, came under my care early this year. J. S., a delicate, anæmic lad, 17 years of age, pale and pinched in the face, small in stature, and wasted in limbs, with a stammering voice and a feeble intellect, was brought to me in January last, supposed to be suffering from pulmonary consumption in an advanced stage. On examination, I found his lungs comparatively sound; and, on admitting him into the Adelaide Hospital in February last, and treating him with ferruginous tonics, he soon recovered comparatively good health. On his first appearance, I noticed the peculiar shape of his head, which I took the opportunity of measuring, and of pointing out to the class. The head was proportionally large; and in profile it resembled that of John D., figured in Minchin's paper, before referred to, but that the forehead was more prominent, and the face longer. The occiput projected backwards in the usual capsule form described by Virchow, and ended in a prominent angle behind; the norma verticalis showed the long narrow shape of the head to the best advantage. On accurate measurements being made, we found the length, from the root of the nose to the prominent angle, to be fifteen inches; from tip of one mastoid process to its fellow, thirteen inches and a half; the circumference round the level of the glabella, and the greatest extent of the protrusion behind, was twenty-three inches and a half; the horizontal projection backwards of the occiput from the nuchal hollow was four inches.

On making inquiries regarding his head, I found that no accident or noteworthy circumstance had accompanied his birth; that none of his family had ever a head of like shape; and that he had constantly suffered from pain in his head; his memory was always weak. The headache improved under treatment; but up to the present he still suffers occasionally from it. The boy presents no appearances of true scrofula, nor do any of his brothers nor his parents.

I might here mention, that I have had the advantage of seeing all the crania referred to by Dr. Minchin, as well as two of the instances described by Professor Turner, and my acquaintance with these led to my recognition of the deformity.

The psychological phenomena presented by the case under comment are interesting when contrasted with others the life history of which have been recorded. Dr. Minchin's case, John D., was in full vigour and health, and remarkably quick and intelligent. Lucæ also mentions that a friend of his, a learned man, and occupying a high position in society, possesses a skull of this form; he has a strong memory, and promises to attain to a good old age. I am likewise acquainted with a gentlemen, aged about 60, possessing a good memory, whose head approximates to this shape. These facts show that the scaphocephalous malformation entails no necessary want of mental power; but Virchow's instances and mine seem to show that such a want may co-exist with this deformity; indeed Von Baer gives it as his opinion that, although it is possible for the subjects of this deformity to attain to good health and a ripe age, yet the number of young skulls exhibiting this formation indicates that, in general, feeble intellectuality, and a tendency to early death, are the commonest concomitants of it.

The most important question arising in connection with this deformity is, the inquiry as to its producing cause; and, in explanation of this, two theories have been proposed: 1, that of Minchin, adopted by Von Baer, that it arises from the presence of a central ossific nucleus, from which the biparietal bone has been developed; and 2, the theory of Virchow, that it arises from a premature synostosis of the sagittal suture—an union of the two parietal bones, either during fœtal life or immediately after birth. This idea is maintained by Lucæ, Welcker, Von Düben, Turner, Morton, Meigs, Davis, and Thurnam. On both sides, there are many plausible arguments, and it becomes a point of interest to weigh their relative merits.

In favour of Minchin's theory, we find: 1, the fact that in the skull of Daniel B., there are undoubted lines of ossification radiating from a central point, that point being in or near the line where, otherwise, the sagittal suture should be. These are well exhibited in Dr. Minchin's figure, which by no means deserves the criticism passed upon it by Welcker and Von Düben, that the solar rays are not to be depended on, as being evidently exaggerated; and, although they are not found on any other cranium, yet they are so distinct on it, there can be no possible doubt of their nature; nor are they all vascular grooves radiating from the parietal foramina, as Von Düben suggests, but true ossification ridges, like those seen on many skulls of like age. 2. The presence of the median "snibb" (Virchow), projecting near or into the middle of the coronal suture, and corresponding to the anterior fontanelle. 3. The absence, in most of the published cases, of parietal tubers. The supporters of the second theory, however, explain it, by adducing instances of the coronal "snibb", even co-existent with an open sagittal suture; and, as for the third, there are undoubtedly cases of semiscaphocephalus which present us with the appearances of tubera parietalia, and, *vice versâ*, instances of open sagittal sutures without tubera.

In favour of the theory of synostosis, the following arguments are adduced. 1. The occasional presence of a fissure in the line of the sagittal suture in true scaphocephali. This is admitted by Minchin and Von Baer; but is accounted for by them as an interruption in the continuity of the ossification from a single point. Such interruptions do occur in normal skulls of young children in the parietal, and occasionally in the occipital, bone; consequently, this objection is not one of great force. 2. The presence of parietal foramina is adduced by Welcker as an unanswerable argument against the single centre theory; for, if we trace the method of development of these, we find that they are formed in the progress of development towards a margin from an ossific centre; the presence, then, of one such foramen even shows that its locality must have been, at some time, in the process of embryonic growth on the marginal side of the ossific point. 3. Düben brings forward intermediate instances in which skulls possessing a positive suture showed a tendency towards this form. 4. Keels occur in many of the lower animals in which the parietal bones undoubtedly spring from separate points of ossification—as the orang, the lion, and the dog. 5. If the parietals were developed from a single centre, the radii would start from a comparatively flat area, and would not produce a carina, as we never find the ossific centre of a flat bone truly carinate, but domeshaped. 6. It has been said that, if the parietals were developed from a central point, it would involve the necessity of energetic ossification along the squamosal edge more rapid than we have any reason to expect; but Turner has shown clearly that, from some centres, the process of bony formation takes place much more rapidly than from others; and, if so, why might not ossific action extend more rapidly on some sides of a centre than on others?

Do the number of points of ossification in the skull-bones vary, is a question which bears closely on the point at issue; and, in examining the bibliography of the growth of fœtal bone, it will be remarked that anatomists give for some of the bones of the cranium, different numbers of ossific centres; and of the parietal itself, which typically has a single centre, cases are on record where two points of ossification existed; instances of this are recorded by Professor Traquair of Dublin, Sömmering, and Gruber. In the description of the ossification of the squama occipitis, Meckel mentions that bony growth takes place from eight points. Cloquet, Gray, and Beclard, refer it to four; Cruveilhier, Portal, Boyer, and Harrison, to one. On examining the facts, in order to reconcile these discordant opinions, I find that, about the end of the seventh week, two centres appear, which subsequently unite, behind the foramen magnum; three pair then become developed at the third month, two above the first pair, arranged in twins; a small external and a large internal at each side; and, finally, an apical pair—all of which are united into one squama at the sixth month (Meckel says the fifth). Now we see in this process that, as we might expect on *à priori* grounds, those centres which are the closest together unite the soonest; consequently, if we found the centres differently arranged in groups of fours, or in odd groups, it would make a corresponding difference in the course of the bone development. It comes thus to be an interesting point, whether these centres have a regular typical distance from each other which they should maintain in the course of growth. To determine this, I have carefully examined thirty-one skulls; and have ascertained the distance in adult skulls between the parietal tubera in these, measured vertically across the top of the head, from the middle of the eminence on one side to its fellow on the opposite.

The following table shows the results of this measurement.

In one	instance	the distance was	7	inches.
In one	,,	,,	$6\frac{5}{8}$	,,
In five	instances	,,	$6\frac{1}{2}$	,,
In four	,,	,,	$6\frac{1}{4}$	,,
In eight	,,	,,	6	,,
In two	,,	,,	$5\frac{7}{8}$	,,
In five	,,	,,	$5\frac{1}{2}$	,,
In one	,,	,,	$5\frac{1}{4}$	,,
In one	,,	,,	5	,,
In one	,,	,,	$4\frac{3}{4}$	,,
In one	,,	,,	$3\frac{1}{2}$	,,
In one	,,	,,	$1\frac{7}{8}$	,,

All these skulls were adults, apparently healthy; and I noticed, in the process of measurement, that the five lowest on the list present a gradual approach to the peculiar skull-form in question; the last individual was a perfect scaphocephalus; the second last was the skull of a negro, which exhibited a perfectly closed sagittal suture, and which was not far removed from this variety of skull-form. Of these thirty-one skulls, six showed a parietal tuber nearer the squamal than the sagittal margin; and two had this remnant of the ossific centre palpably nearer to the lambdoidal than to the coronal edge.

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* Other cases are recorded in Davis's *Thesaurus Craniorum*, and a paper by the same author on "Synostotic Deformities of Human Crania".

From these observations, we may conclude that there is no typical or fixed point in Nature to which the development of the ossific centre is confined; and secondly, that the nearer to the mesial line the original centre may be, the more rapidly will the bones on each side approach to the sagittal suture; and, if the two centres had been originally placed within an unusually short distance of each other, the result would naturally be the early contact of the inner margins, which would predispose to synostosis on this line. Growth being checked along this line, an increased stimulus is given to ossification in all other directions, so the posterior extension of the parietal progresses to compensate for the checked growth transversely. Meeting with the ascending squama occipitis, however, causes another alteration of action; and the result of the bone-growth along the edges of these opposing elements is the prominent occipital angle projecting backwards. Forwards, the area of ossification proceeds undisturbed until it meets the frontal; and, as the inward and backward checks have caused an increased vital rapidity of bone growth in this mesial bone, the biparietal extends so rapidly that its confluent angles stretch into the anterior fontanelle. Admitting this theory, that the scaphocephalic form of skull arises from the presence of two ossific centres placed unusually near to the mesial line, so close that synostosis takes place at an early period, causing a coalescence similar to that in the twin centres of the squama occipitis, we have an easy explanation of all the points doubtful or discrepant in the various descriptions; we can understand how traces of tubera may exist even in true scaphocephali; and also how, in the example of Daniel B., published by Minchin, the radii seem to spring from a common centre; that centre is evidently broader transversely than antero-posteriorly, and is formed of two lateral points centrally coalescing. It also helps us to understand the existence of the carina inexplicable otherwise on the single centre theory.

ON AFFECTIONS OF VASO-MOTOR NERVES.

By JOHN W. OGLE, M.D.,

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At page 264 of this Journal for Aug. 22nd last, I notice an abstract of Dr. J. Russell Reynolds' paper, at the recent Oxford meeting of the British Medical Association, on Certain Affections of the Vaso-motor System of Nerves. Dr. Reynolds related an instance in which the right radial pulse could be arrested by pressure on the lower cervical vertebræ, at the same time pain in the back and an uneasy feeling in the right arm being occasioned; and with these phenomena he compared certain cases of paroxysmal sensations in the limbs, with which were associated irregularity, intermission, or weakness of the pulse of the affected side. "Dr. Reynolds was of opinion that such symptoms resembled epileptic seizures."

Not having had the advantage of being present when the paper was read, I had no opportunity of quoting the following case; which may well be adduced, I think, in illustration of the subject of the paper in question, and is in itself so remarkable and interesting that it ought to be kept in mind by all persons studying affections of the nervous system.

The case is related by Dr. Pereira, in his work upon the *Materia Medica*; and was under the care of Dr. Holst, Professor in the University of Christiania. It was that of an epileptic, in which it was observed that the pulse in one arm was always imperceptible during the epileptic paroxysm. "On a *post mortem* examination, it was discovered that an anomalous distribution of the arteries existed, so that this arm was supplied with blood by the vertebral arteries, which derived it (the blood), through the basilar artery, from the carotids. *The cessation of the pulse during the paroxysm proved that the circulation through these vessels was temporarily interrupted.*"

Your readers will be aware that observation and experiment led Dr. Brown-Séquard to conclude that certain of the phenomena of epilepsy depend upon reflex contraction in the blood-vessels, and especially the small arteries of the brain, owing to irritation of the origin of the sympathetic nerve animating them, arising from certain direct or indirect nutritional changes in the cerebro-spinal axis. My friend, Dr. E. Fox, has also (in vol. ii of the *St. George's Hospital Reports*) strongly advocated arterial spasm as the proximate cause of most of the phenomena of epilepsy.

Is not the exceptional case which I have above cited—observed, as it was, many years before Dr. Brown-Séquard's suggestion—in harmony with this view, and, indeed, to a certain extent, corroborative of it, as also of the suggestion made by Dr. Reynolds?

In conclusion, I would draw attention to a case recorded by myself in the twelfth volume of the Pathological Society's *Transactions*, pp. 2-4. The case was one of apoplexy, in connection with slight softening of, and extravasation of blood within, the pons Varolii, and clots in the right corpus striatum and right cerebral hemisphere. Among other symptoms, peculiar tetanic spasms of all the limbs existed, intensified during venesection; and also *violent pulsations of the right carotid artery and right temporal arteries, the action of the left carotid artery being scarcely felt.* Moreover, the condition of the pupils was remarkable at one time, the right one being dilated and oval, and later on the left one being the most dilated and also oval. The eyeballs were remarkable, as being very prominent; the prominence increasing before death so as to separate the eyelids. I suggested the question at the time, how far the difference in the pulsation of the vessels in the neck was owing to modifications of vaso-motor influence; and the same might, I think, be asked of the alterations in the pupil and of the prominence of the eyeballs.

ON ERGOT OF RYE IN THE TREATMENT OF NEURALGIA.*

By EDWARD WOAKES, M.D.Lond., F.L.S., Luton.

In the October number of the *Journal of Cutaneous Medicine* for 1867, I published a paper on the Correlation of Neuralgia to Skin-Rash, believing that the consideration of some of the typical forms of this association of symptoms, in which the phenomena are to a certain extent exposed to accurate observation, would tend to throw light on the more obscure, though perhaps more frequently occurring, forms of neuralgia. One inference arrived at was, that the rash, when present in neurotic disease, can be accounted for only by a reference to the structural anatomy of the parts involved in the lesion; while the uncertain fact of its occurrence was inferred to depend upon the nature and intensity of the exciting cause of the attack. In other words, the rash was looked upon as complementary of the pain, but having this important distinction, that, being a tangible symptom, whose causation could be traced, it suggested a clue whereby to unravel its more obscure and more formidable congener, the pain.

In order to make these remarks intelligible, I will, with your permission, briefly recapitulate so much of the theory as is necessary to show the connexion between it and the treatment now proposed, which results as a direct corollary from it.

A comparison of the neuralgic and eruptive phenomena which occur when a nerve is wounded, with the corresponding symptoms exhibited in purely idiopathic cases of nerve-lesion, showed so close an approximation as to permit of their being regarded, for all practical purposes, as identical. The theory developed from this parallelism of symptoms was this:—The results being similar in both the traumatic and idiopathic classes, the causation in each group of cases, though differing in respect of intensity, operates through the same anatomical channels, and induces the same physiological phenomena in both.

In the traumatic instances, the symptoms were shown to be manifestly due to the paralysing influence of the injury or shock upon the fibres of the sympathetic system of nerves accompanying the *arteries* in their distribution to the *skin* and to the *sentient nerves;* and the resulting symptoms were found to be in accordance with the physiological sequence of such palsy.

In the other instance, that of idiopathic neuralgia associated with skin-rash, of which shingles may be taken as the type, the same theory of shock inducing palsy of the sympathetic fibres supplying the affected tissues was cited to explain the attendant phenomena. The sympathetic nerve-fibres accompanying, say, an intercostal artery, are lost *in the direction of the skin*, on the minute divisions of the artery supplying its ultimate structure. When these nerve-fibres are paralysed from any cause, their function of regulating the calibre of the vessels will be withdrawn. Passive congestion of these vessels, and consequent effusion of liquor sanguinis, are the physiological consequences of this nerve-palsy. Tracing such an effusion in a cuticular papilla, there will be found, in the first place, a corresponding elevation of the cuticle covering it, which gradually gains the character of a true vesicle as the effusion increases, until in this manner a spot of herpes is produced. Following out the track of this anatomical clue, we are led to an explanation of the *pain*—the neuralgia—so often associated with shingles. The same artery which supplies the affected spot of skin, sends also nutrient vessels to the neighbouring sentient nerves, which vasi nervorum are furnished with regulating sympathetic fibres continuous with those proceeding to the cutaneous arterial twigs. These vasi nervorum will, therefore, acknowledge the same impressions, and manifest the same behaviour under them, as do the minute vessels of the skin when under the influence of shock, as just now described. Consequently, there will ensue, synchronously with the corresponding skin-phenomena, a state of dilatation of these vessels, and exudation from them of watery elements between the fibrillæ of the nerve; and, being confined in this locality by the fibrous sheath of the nerve, a mechanical stretching and compression of its constituent sensory fibres ensue, resulting, as might be expected, in the acute pain so characteristic of neuralgia.

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* Read in the Medical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

It will be impossible here to repeat the entire argument on which these conclusions are based, and I must content myself by referring any one interested in the matter to the paper from which I have quoted. That shock of the kind alluded to is the proximate cause of shingles, is borne out by many examples, but by none more strikingly than one which recently came to my knowledge. A single young woman, aged about 20, wore through one day, and at the cost of much suffering, a pair of stays considerably too small for her. In the course of three or four days, an attack of shingles supervened. Of course, it is not implied that the shock does in all cases assume the palpable form just mentioned; draughts of cold air, and other more subtle influences, being frequently the starting-point in the disease. The application of this theory is, *mutatis mutandis*, coextensive with the wide range of neuralgic affections; and its soundness may be tested by its capability, in the first place, of suggesting an explanation of successful though purely empirical modes of treatment, and, in the second place, of originating new and more precise methods of cure.

In treating the pain remaining after a simple case of shingles, therefore—and the remark applies to all uncomplicated forms of neuralgia—the chief indication is to restore the tone of the vessels, withdrawn through the paralysing influence of the shock on the nerves controlling them. In other words, we have to induce in the sympathetic fibres concerned a return to their normal function of regulating the circulation through the small arteries and capillaries. This equilibrium being once restored, we may confidently expect the disappearance of the effused fluid from its disturbing situation amongst the fibrillæ of the sentient nerves.

The drugs hitherto found useful in the simple forms of neuralgia, the pathology of which I have so inadequately attempted to indicate, may, I believe, have their *modus operandi* traced to their influence upon the sympathetic nerves, through the medium of which they restore the suspended tone of the remote arterial circulation. To the list of these, foremost amongst which is belladonna, I would now suggest that there should be added the *ergot of rye*—basing the recommendation upon the experience of the following cases.

My attention was first drawn to this drug, as of probable use in nervo-therapeutics, from observing its power of controlling the hæmorrhage in a case of hæmoptysis—showing that the range of its operation on the vascular system is by no means limited to that part of it represented by the uterine vessels. It seemed equally clear that its effect in this respect was mediated by the ganglionic nerves; and, therefore, that it was exactly adapted for exerting a remedial effect over the pathological condition of neuralgia depicted in my theory. Examples might have been added where great benefit accrued from a combination of the ergot with other remedies adapted to the case; but those only are reported where the drug was administered *per se*.

CASE I. *Shingles.*—M. M., a single female, aged 22, of sallow complexion. The catamenia had been absent six months. She had had headache six weeks; and sharp pain in the right side of the chest one week, after which an herpetic rash appeared beneath the right breast, extending backwards on this side to the spine. At this time (February 10th, 1868), there was also a sharp neuralgic pain (besides that below the breast) in the second right intercostal space. The bowels were confined. I ordered her an ounce of mistura alba three times a day. On February 12th, she was no better. The rash was extending on the same side. The pain was very severe under the right breast. Her person exhaled a peculiar pungent odour. On February 15th, she was in about the same condition, and was ordered to take fifteen minims of liquid extract of ergot in an ounce of water every four hours. On February 17th, she stated that the pain was very much better since taking the medicine. She passed a great deal of urine. On February 19th, the pain in the side was worse. The ergot was increased to forty minims. On February 21st, she had been almost free from pain since the last date. She said her sight was very dim. The pupils were dilated. She was ordered to discontinue the ergot, and take twenty minims of solution of sesquichloride of iron in water three times a day. On February 24th, the catamenia returned. The odour was gone. She felt quite well, and had no pain. On February 29th, she experienced a slight relapse of pain, with great weakness. She was ordered to discontinue the steel, and to return to the ergot, a very few twenty-minim doses of which completely cured her.

REMARKS.—This instructive case points throughout to some lesion of the nervous system as the root of the malady. The pungent sweats are specially interesting, as they occur in some cases of wounded nerves, as pointed out in the report of cases of this kind from America. I believe the steel was prejudicial; and infer that, in many cases of simple suspended menstruation (chlorosis) in young females, ergot of rye is a preferable remedy.

CASE II. *Sciatica.*—E. L., aged 21, had pain in the left hip, shooting down the back of the leg in the course of the sciatic nerve, worse at night, with thick high-coloured urine, during four months. The catamenia were regular. This, being regarded as a case of rheumatic sciatica, was treated for a week with alkalies and iodide of potassium; but, as the pain became worse, she was given, on March 3rd, 1868, ten minims of extract of ergot in an ounce of water every four hours. On the 4th, she stated that she slept much better; and the pain was much relieved since the previous day. On the 7th, she had had no return of pain since the 4th. She said she had not been so well for four months. Her remaining debility was met by a combination of ten minims of liquor ferri sesquichloridi and six minims of liquid extract of ergot, in water.

REMARKS.—It will be observed that this patient was cured completely in four days of an illness which had caused her increasing annoyance during four months. The case illustrates also a point supported by subsequent experience; viz., that, when ergot is likely to be useful, its good effects commence immediately.

CASE III. *Tic Douloureux.*—Emma B., aged 21, was attacked on April 27th, 1868, with very severe tic of the left side of the face, affecting especially the inferior dental nerve, and extending downwards to the shoulder. She had some dyspepsia, but otherwise was healthy. She was ordered to take an ounce of the following every four hours.

℞ Potassæ bicarbon. ʒiss; infusi ergotæ ℥vi; extract. ergot. liquid. ʒi. M.

On April 29th, the tic was almost gone. She complained now only of weakness. At her next visit, recovery was complete.

CASE IV. *Hemicrania.*—John Gray, aged about 35, has been repeatedly under treatment for that form of neuralgia known as brow-ague. His attacks have been cured alike by quinine and sesquioxide of iron. Sometimes they are very severe, and the treatment long continued. He was last seen in May 1868, when he had a very sharp attack of neuralgia of the right temple. He was ordered to take, every four hours, an ounce of a mixture of two drachms of liquid extract of ergot in six ounces of infusion of ergot. After taking this for two or three days, he was cured more satisfactorily and quickly than in his former attacks.

CASE V. *Tic Douloureux.*—Miss E., aged 22, was seen on June 2nd, 1868. She had had tick in the left temple for two weeks, very severe at times. The tongue was foul, the secretions normal, and the general health good. A stomachic with soda and rhubarb was prescribed. On June 4th, the tongue was cleaner; but the neuralgia was unrelieved. She was ordered to take, every four hours, an ounce of a mixture containing two drachms and a half of liquid extract of ergot in eight ounces of infusion of ergot. The neuralgia was relieved immediately after commencing this treatment, and entirely left her after using it two or three days.

In one case of chronic, and one of acute sciatica, the ergot failed to relieve; but it is hoped that the very favourable result which the examples now reported indicate to have accrued from its use may gain for the drug a more extended trial in neurotic affections; and that, shortly, sufficient data may be collected to enable one to decide with some degree of precision the class of cases in which to expect from it the marked benefit it is evidently capable of effecting in many forms of the disease.

THE FALL OF LEAVES.—M. Trécul and others have been engaged in investigating the cause of the fall of leaves, and their researches would seem to point to the conclusion, that in many plants a phenomenon occurs just before the fall of the leaf, which is not unlike the process which accompanies the shedding of horns in animals. It consists in the obstruction of the proper vessels at the base of the petiole or leaf-stalk. This obstruction is caused by the multiplication of cells, which first occurs in the parietes of the vessels. The cells increase and multiply, till at last the vessels are completely choked up in the neighbourhood of the insertion of the leaf, and thus a differentiated plane is formed, across which the leaf-stalk breaks, and the leaf accordingly falls.—*Boston Journal of Chemistry.*

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

LEEDS GENERAL INFIRMARY.

(Cases under the care of Mr. NUNNELEY.)

DISLOCATION OF THE RIGHT FOOT INWARDS.

THIS cast is taken from the foot of Samuel Radcliffe, aged 36, a striker for blacksmiths. It represents a dislocation of the astragalus outwards. Sir Astley Cooper terms the affection dislocation of the tibia outwards; while Boyer and most of the French and later English writers, Erichsen amongst the number, as I conceive, more correctly, term it dislocation of the foot inwards. In these cases, Sir Astley Cooper speaks of the tibia being dislocated; while the other writers, regarding the tibia and fibula as the fixed bones, and the astragalus as the one which is moved from its place, speak of the latter as the dislocated bone; and hence what Cooper called a dislocation of the ankle inwards we now call an outward dislocation of the foot, and what he called an outward dislocation of the ankle we speak of as a dislocation of the foot inwards. It is of importance to bear this in mind, or great confusion would result. This is a far rarer form of dislocation than that of the astragalus inwards and the foot outwards, and is also, according to Cooper, of far more serious consequence. He says: "This luxation is the most dangerous of the three (to which the ankle-joint is liable); for it is produced by greater violence, is attended by more contusion of the integuments, more laceration of the ligaments, and greater injury to the bones. The malleolus internus projects the integuments of the ankle very much outwards, and forms so decided a prominence that the nature of the injury cannot be mistaken. The foot and toes are pointed downwards; the malleolus internus is obliquely fractured, and separated from the shaft of the tibia."

The mode in which this man met with the accident is characteristic of it. He was running fast in the dark to see a fire, when he suddenly, and quite unexpectedly, fell into an excavation nine or ten feet deep, lighting upon his feet among the loose stones and bricks with which the bottom was covered. He was brought into the Infirmary during the night. Early in the morning, I found the foot inverted, resting upon its outer edge, the sole being turned inwards. There was a large and well-marked projection below the outer malleolus, where the skin was so stretched and red that, had the tension not been removed, it must shortly have given way. There was a deep narrow depression at the inner malleolus, where the skin was also very tight. The foot was fixed, with the toes pointing slightly downwards, though not so markedly as Sir A. Cooper's statement would lead one to expect. The man complained of very great pain. He was placed upon his back, the knee flexed and fixed, when, the heel and toes being seized, the foot was well extended and rotated at the same time, so as to throw the astragalus inwards, when it shortly slipped into its position with an audible snap. There was no fracture of the tibia or inner malleolus, though Sir A. Cooper says that such must occur; which, indeed, would *à priori* be expected, as an almost necessary part of the accident. The leg was put up in two side splints with foot-pieces, and swung in a fracture-cage for three weeks, when the splints were removed, and a dextrine bandage applied; and he was allowed to walk about on crutches. In six weeks, he had so far recovered as to be able to bear some weight on the limb, and to walk about with a stick; the position and form of the foot and ankle-joint being natural. He has now quite recovered.

COMMINUTED FRACTURE OF THE ASTRAGALUS.

Uncomplicated comminuted fractures of the astragalus are not common, and probably still less so when, after their occurrence, the person has been able to walk about, as appears to have been the case with the patient from whom this cast is taken.

The man, an Irish bricklayer's labourer, aged 36, was admitted into the Leeds Infirmary in September 1866, with the ankle considerably more swollen than is here represented. The statement he made is, that, fifteen months before his admission, while wheeling a loaded barrow across a plank, he fell, and lighted upon his feet some three yards below. He was a good deal hurt. The ankle swelled much, and was very painful. He was at first compelled to lie; but, after a few weeks' rest, he resumed his work, at which he continued, though lame, and suffering much, with the joint greatly enlarged; when, eight months since, about seven after the first accident, he had a similar fall, again lighting on his feet, and again suffering in a similar manner, but more severely; since which time he has been unable to do much work, and for several weeks none; indeed, he has been for the most part compelled to lie in bed, being unable to bear any weight, or to move much about, in consequence of the suffering brought on by any attempt to do so.

On admission, the swelling was considerably greater than shown in the cast; and the skin was inflamed, as though suppuration would occur. He was kept in bed, and cold lotions applied, under which the inflammation subsided, and the swelling became less. As soon as the limb could be handled, attempts were made at a precise diagnosis, which was very difficult. At last, by a process of exclusion as to what the affection could not be, the opinion was arrived at, that there was a comminuted fracture of the astragalus, with a largely dilated synovial sac; though one excellent surgeon was inclined to think there might be a splitting of the tibia, and a separation of the two malleoli from each other, as the joint was so much enlarged, and loose pieces of bone could be distinctly felt.

The limb was amputated at the lower third of the leg, as the preparation shows. The cast was taken the day before the operation. The tibia was remarkably dense and solid to saw through. The wound healed by first intention, and made as good a stump as could be desired. The man, with a peg in a socket, has been able to resume his work, and bear a large part of the pressure on the stump, which so very rarely can be done.

The astragalus was found broken into the four fragments, as shown in the preparation; and the whole joint largely dilated by the increase of synovial fluid. That the fracture had existed a considerable time, is shown by the rubbed condition of the pieces of bone. Most probably, in the first fall, the astragalus had been broken more or less; and, in the second fall, a further comminution had occurred. The ligaments of the ankle-joint, though much stretched, do not appear to have been torn. The synovial sac was entire; and the cartilage of all the bones was glistening and healthy.

EXCISION OF OS CALCIS AND CUBOID BONE.

James Sharpe, aged 24, a labourer in a dyehouse in Leeds, stated that, twelve months before his admission, he trod upon a sharp, projecting, upright piece of iron, which penetrated his right heel, since which time he has been unable to work, in consequence of the pain, swelling, and discharge from the foot.

On admission, the man was wasted and weak from suffering and want, but otherwise healthy. The ankle-joint was not involved; but the os calcis was generally carious, and it was doubtful how far the cuboid bone and astragalus were affected. The operation was commenced with the intention of removing the os calcis alone, if it should be found that it alone was implicated; if the cuboid were found much diseased, and the astragalus not, to take it away as well; but, if all three bones were carious and soft, or their cartilages gone, to amputate the foot at the ankle-joint. The disease had invaded the whole os calcis, which was soft and carious throughout. The mischief had probably sprung from the spot where the pointed iron had penetrated; it also extended to the cuboid, the posterior part of which was carious, and the whole soft and vascular. As the astragalus and its cartilages appeared to be sound, it was left; and the os calcis and cuboid were removed. The wound in the soft parts was brought together in the usual manner with wire sutures and wet lint; the limb was laid upon a pillow; but, shortly afterwards, the wound had to be opened out, owing to profuse hæmorrhage; and many vessels, which had not required ligature at the time of the operation, were tied. (It is a curious coincidence, that two other amputations, done at the same time, also had to be opened out, on account of hæmorrhage.) This retarded the healing, and copious suppuration followed; but the wound soon contracted, granulations sprang up, and an excellent foot was obtained. The cast was taken three months after the operation, when he was an out-patient, and able to walk to and from the hospital. When he has an ordinary workman's boot, he can walk without a stick firmly and well, with very little limp or weakness. He has perfect motion in the ankle-joint. Without the support of the boot, the foot is weak; and, though he can walk without a stick, he limps, and is afraid to put his whole weight on the foot. He is able now (and will, I believe, become still more so) to do any ordinary light work without difficulty, and is in a much more favourable condition than an artificial foot or any mechanical contrivance, had the limb been amputated, would have put him in.

A CASE OF REVERSED SYME'S AMPUTATION, THE FLAP BEING TAKEN ENTIRELY FROM THE FRONT OF THE FOOT.

W. Perkins, aged 45, a very stout muscular man, an engine-tenterer, was in the act of putting in motion a large stationary engine (40-horse), on the morning of July 24th, 1868, for which purpose he had mounted on to it to reach the fly-wheel, when, as it started, his foot slipped between the cog-wheels of the main shaft. When brought to the Infirmary immediately afterwards, the whole of the two posterior thirds of the sole of the right foot was found crushed into small portions, and completely separated from the parts beneath; whilst the soft mass of fatty material between it and the plantar fascia was detached and hanging loose; the plantar fascia itself torn; the projecting hard part of the os calcis crushed through; and there was reason to think that the plantar arteries and nerves were destroyed. The upper part of the foot was altogether uninjured, not having been subjected to any crushing. The injured soft parts had undergone enormous pressure, and were too much lacerated and separated to allow of any hope of their recovery; so, supposing these should simply slough away, gangrene not seize the foot, and the crushed portions of the os calcis be thrown off, no cover could remain, and none could be got. If, after months of suffering and danger, a cicatrix should be formed, contraction, which would distort and render the foot useless, would be the result. No new skin could be produced, which would not at once give way; for it would lack the elasticity essential to its office, and would be quite unable to support any pressure. Thus, under the most favourable circumstances, the limb would be practically useless, were an attempt made to save the foot successful. The skin to two inches above the heel was destroyed; so that, to obtain a flap from the leg, an amputation through the calf would have been necessary. This, in a very stout man, of gross full habit, like the patient, inflicting a very large wound (particularly in such intensely hot weather), would have been attended with great danger, which it was most desirable to avoid. I therefore made a flap exclusively from the soft parts in front of the ankle and foot, carefully stripping them off down to the bones; and sawed through the tibia and fibula, so as just to remove the malleoli with the articulatory cartilage. In fact, I made a reversed Syme's amputation, taking the flap altogether from the front of the foot, instead of the back.

Though, of course, the flap will be much less adapted to bear hard pressure than if it had been composed of the dense sole-structures, a little care will to a considerable extent overcome the disadvantage; while the immediate risk to the patient's life has been considerably lessened, and, I believe, his future condition rendered more comfortable, and his power of locomotion more considerable, than they would have been, had amputation been done through the calf. The tendency which the short posterior flap showed to gangrene proves that none too much of the limb has been removed; but, as it has recovered, and the whole of the anterior tissues have maintained their vitality, a good union has resulted, and an excellent stump will, to all appearance, be gained.

BRISTOL GENERAL HOSPITAL.

HYPODERMIC INJECTION IN A CASE OF COLIC.*

(Under the care of S. MARTYN, M.D., Physician to the Hospital.)

EDWARD BUDDRY, aged 27, sailor, was admitted under Dr. Martyn on October 2nd, 1867. His appearance was healthy. He was temperate in habits, though some years ago he used to drink hard. His previous health was generally good; having had, however, typhoid fever four years ago, and scurvy, from which his gums were still spongy, a twelvemonth ago. On September 24th, while practising on board the *Dædalus* training-ship, he was attacked by griping pains, vomiting, and diarrhœa. The latter had been relieved by medicine; but the pains and vomiting continued unabated.

On admission, he complained of griping pain at the epigastrium and round the umbilicus. He had no appetite for solid food; indeed, he vomited almost continuously, drinking eagerly, and rejecting water, tinged with bile, by pints. His head ached from straining. The organs of respiration and circulation were healthy. The pulse was 84, full. The tongue was clean. The abdomen was not swollen, but tender. The pain started from the epigastrium, spreading (as he strained) over the belly and to the dorsal region. The bowels were moved regularly; the stools were healthy. The urine was normal. He was ordered half milk diet, and a pint of milk daily; and to have three grains of calomel and five grains of rhubarb immediately, and half an ounce of castor-oil afterwards; also the following draught twice a day.

℞ Misturæ cretæ ℥i; spir. ætheris ♏xx; tincturæ opii ♏x. M.

Hot fomentations were ordered to be applied.

Oct. 3rd. He had a bad night, vomiting continually; and was in great pain this morning. The bowels had been relieved. He was ordered to have a grain of opium in pill immediately; to be repeated, if required.

Oct. 4th. He took two pills without much effect; he continued sick and in pain. He was ordered to repeat the pills as required.

Oct. 7th. He was worse to-day, looking very ill, and much thinner. He yelled with pain. He was ordered to have a hypodermic injection of one-third of a grain of acetate of morphia in twenty minims of fluid. The injection gave relief in a few minutes, and he passed a good night.

Oct. 8th and 9th. The injection was repeated.

Oct. 10th. He seemed better. No injection was made.

Oct. 11th. There was again some pain. The bowels had not been open for two days. He was ordered to have castor-oil immediately, and half a drachm of laudanum at bedtime; and to take the opium pill as required.

Oct. 12th. The pill was vomited, but the draught was retained some time. The injection had to be used at 5 A.M., and was ordered to be repeated at bedtime.

Oct. 13th. He was easier, and retained his food. He was ordered to take the following mixture when in urgent pain.

℞ Liq. opii sedat. ♏x; sp. ætheris ♏x; pulv. tragacanth. comp. gr. iij; aquæ ad ℥i. M.

Oct. 16th. He had not been sick. He took fish, eggs, and a pint of milk with his diet.

Oct. 22nd. Last night, vomiting returned violently. The water thrown up was rather fœtid, and contained bile and curdled milk, with blood from the gums. The abdomen was acutely tender at the upper and right angle of the umbilical region (? duodenum). Pulse 100, feeble. He had then hot fomentations, and opium by the mouth; but, after two hours, required the injection, which gave perfect ease.

Oct. 25rd. He had been free from pain till this afternoon, but was again suffering. He was ordered to take a grain of opium every hour, and was allowed milk, barley-water, and lemons.

Oct. 24th. He took six or seven pills, but brought them all up; he therefore had the injection, with immediate relief. Vomiting began as soon as the effect of the morphia passed off. Pulse 120, weaker. As he was now in pain, two grain-pills of opium were ordered to be introduced into the rectum.

Oct. 25th. The suppository failing to give any relief in four hours, he had the injection, and a good night. He now looked very weak and worn from extraordinary emaciation and distressed expression, presenting a ghastly appearance. He was ordered brandy mixture, and an enema of a drachm of tincture of opium in warm water.

Oct. 26th. The enema gave relief in about an hour, and was repeated with half a drachm at 2 A.M. The pupils were contracted. He had brandy mixture every half-hour. At 9 A.M., he was again sick. At 2 P.M., a pill containing creasote was given; ice and soda water were ordered. 11 P.M. An enema of a drachm of tincture of opium produced so little effect, that a hypodermic injection was given.

Oct. 27th. He had a good night after the injection. Copious black stools were passed involuntarily.

Oct. 28th. He was sick again, and was ordered the following.

℞ Mistur. bismuthi carb. ℥i; acidi hydrocyanici diluti ♏ij; liquoris morphiæ ♏xxx. M.

Of this he at once brought up two doses.

Oct. 30th. Having been sick again yesterday, retaining only a few doses of brandy mixture, and being still in great pain, he had the injection of half a grain of morphia at 1 A.M.

Oct. 31st. He was free from pain for twenty-four hours. The injection was repeated at 1 A.M. He retained jelly and oysters. In the afternoon he was sick again, and passed clots of blood from the bowel. The coils of the ileum were visibly prominent. At 10 P.M., he had an injection of liquor morphiæ ʒi (*British Pharm.*) in two places. *It acted more quickly than when the half-grain was given at one spot, and produced, apparently, a more continuous effect.*

Nov. 1st, 2nd, 3rd, 4th. Two injections were made each day. The bowels were relieved.

Nov. 5th. The sickness returned on the 4th. There were pain and swelling in the right upper abdomen. He had three injections.

Nov. 6th. After a good night, pain and sickness returned. He was weaker, and his moaning and screaming were feebler. Pulse 96; tongue clean.

Nov. 7th. After an injection at noon, he ate fowl, and retained it. The bowels were well relieved. He appeared decidedly better.

Nov. 11th. The pain returned last evening, and he had an injection. He was now improving. Appetite good; tongue clean; pulse 96.

Dec. 6th. The man went out, at his own request, shortly after the last report. He was excessively weak, and remained at home poorly, but convalescent, for a week. He is now almost as strong as ever, and going to sea.

Jan. 30th. He had gone to sea.

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* Read before the Bath and Bristol Branch.

REMARKS.—I have thought this case of sufficient interest to be brought forward, although an isolated example, on account of the very marked character of all the symptoms, and the indisputable value, in this particular instance, of the hypodermic mode of exhibiting opium. It was one of a class of Cases which must be grouped together as "colic", distinguished only from ileus by the absence of obstruction, and consequently of fœcal vomiting. Diagnosis as to the character of the lesion was never quite clear; but there appeared to me great probability in favour of entanglement or intussusception near the duodenum. Pain in that region, with vomiting, were really the chief symptoms; and it is unnecessary to point out now, besides various intestinal affections, the possible disorders of the right kidney, the head of the pancreas, gall-bladder, and bile-ducts, added to an obscurity which we undoubtedly expected to have cleared itself up by the opportunity of a *post mortem* examination. The patient's happy recovery I attribute to the fact that, by warding off sickness with the hypodermic morphia, we gained opportunity for preventing starvation; and meanwhile matters righted themselves internally. Not to be tedious, I will ask you to note the following points.

1. *The great duration.* I have not previously had an opportunity of seeing a case of such persistence. It is scarcely an exaggeration to say that the man vomited every few minutes for five weeks, night and day, except when under opiate influence. It was a relief to him to drink fluids, so as to have something to throw up; for the active effort was most distressing, and the slightest palpation induced it.

2. *The urgent necessity for stopping the sickness.* The bowels were too irritable for a system of nutrient enemata; and as food, in every form tried, was rejected, starvation became imminent, and, indeed, was only just escaped at last.

3. The *failure* of suppositories, of creasote, bismuth, hydrocyanic acid, and solid opium (of which six or seven grain-pills were vomited in rapid succession); the unsatisfactory effect of opiate enemata, in the delay of at least one hour which occurred before any relief was obtained, and then imperfectly.

4. The *complete* relief, within about ten minutes, to both pain and vomiting, resulting from the hypodermic injection. This lull for a few hours gave his nervous system rest in sleep, and enabled digestion of just enough food to be accomplished for sustaining life.

5. The *dose of morphia* was one-third of a grain at a time, increased to twice a day, and latterly half a grain. The quantity of fluid was twenty minims, and the outer part of the thigh chosen for the locality. The injection of half a grain at two places—a fourth of a grain in thirty minims at each place—seemed to produce much more effect than the injection of half a grain at one spot.

It seems desirable that we should accumulate more definite information as to the true value of the hypodermic method, cleared from the bias which has influenced many in favour of a new and somewhat sensational and fussy treatment. My own experience has been confined to morphia; and, as far as I see at present, *rapidity of action* is usually the set-off against a somewhat barbarous operation.

The use of enemata, composed of various solutions of morphia or opium, has been perhaps too much neglected; for a narcotic effect is produced more quickly in this way than when the same drug is given by the mouth. But where there is resistance to the ordinary way of taking medicine, as in delirium, or when the stomach is full, or when, as in the case I have just given, there is extraordinary and persistent vomiting, along with violent pain, we cannot be too thankful for so certain and rapidly efficacious a mode of administration.

GUY'S HOSPITAL.

DISLOCATION OF THE HEAD OF THE LEFT FEMUR ON TO THE DORSUM ILII.

(Under the care of Mr. BIRKETT.)

ALTHOUGH this injury is not uncommon in practice, it is certainly extremely rare at a very early age. A healthy boy, aged 8 years and 2 months, was admitted two hours after the receipt of the injury, which occurred as follows. Whilst he was standing in a saw-pit another boy, not seeing him, jumped from the edge above and alighted on his shoulders, knocking him down and probably causing sudden flexion of the left lower limb. The signs of the displacement were extremely well marked. When he was fully under the influence of chloroform, replacement of the head of the bone in the acetabulum was quickly effected by the manipulation of the house-surgeon, Mr. Colley. Mr. Birkett has reduced this dislocation in a girl of 9 years old, a boy of 12, and another of 13; the second case was complicated with fracture of the femur.

REVIEWS AND NOTICES.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND. London: Taylor and Francis. 1868.

THOSE members of the College who remember the old *List*, and its very dry details of official information, will be agreeably surprised to see what an interesting work it has now become under the above new name; and, having only just made its appearance, will be found most valuable to those gentlemen about entering on their professional studies, as giving not only all the regulations to be observed by candidates seeking the different diplomas granted by the College, whether relating to the Fellowship, Membership, Midwifery, or Dental, but publishing, in addition, the questions submitted during the past collegiate year (from July 1867 to July 1868) on Anatomy and Physiology at the first examination for the Fellowship; and on Pathology, Therapeutics, and Surgery, at the second, for this distinction; and also those submitted at the primary and pass examinations for the Membership, together with the names of the successful candidates in both divisions. In analysing the calendar we find that the Court of Examiners have had no less than 53 meetings for the examinations of candidates for Fellowship and Membership; for the former, 61 passed the primary out of 67; and all the candidates, 25, were successful for the diploma of Fellowship. For Membership, 500 offered themselves at the primary examination, of which number 390 passed, the remaining 110 having been referred for three months. At the pass examination 398 went up, of which number 340 passed, and 58 were referred for six months. The Board of Examiners in Midwifery met four times for the examination of 45 candidates, out of which number 32 passed, 6 were referred for a written examination, and 7 altogether rejected. The Board of Examiners in Dental Surgery only examined during the year 4 candidates, all of whom passed.

The Council, or governing body of the College, consists of 24 members, 3 of whom, when no vacancy, either by resignation or death, has occurred during the year, go out in rotation annually in July, but are eligible for re-election by the Fellows of the College, of whom there are now 1323. All proceedings of the Courts of Examiners and the several Committees are reported to the Council for approval and confirmation. During the past collegiate year there have been 13 meetings. There are now only 2 life-members left on the Council, viz., Messrs. Swan and South: the former was elected in 1831, the latter in 1841. The President of the College is Mr. Richard Quain, F.R.S., of University College, who succeeded Mr. Hilton in that office; the Vice-Presidents being Mr. Edward Cock, of Guy's Hospital, and Mr. Samuel Solly, F.R.S., of St. Thomas's Hospital. In examining the list of Fellows, we find there are 363 who have obtained the distinction by examination, 220 honorary, and 740 by election, making a total of 1323. At the last annual election a greater number recorded their votes than has ever been known by the authorities, viz., 339; of this number, 145 were Fellows by examination, 42 honorary, and 152 by election. There are about 15,000 members, 995 licentiates in Midwifery, and 297 holding the Dental diploma. During the past year the deaths of 25 Fellows were reported; the eldest had reached the great age of 86, the youngest was only 33. Of Members there were 128 reported, and here the oldest had reached 86 years, the youngest being only 23.

A correspondent in the *Times*, who occasionally furnishes some illustrations of "extraordinary longevity," would find some marvellous instances of prolonged existence in the calendar. We have come across just half a score of members, the oldest of whom, presuming him to have been 22 when admitted a member, must now be 98 years of age. Subjoined are the names of these patriarchs of the profession, with the dates of their membership: Messrs. Boys, 1796; Cooke, 1799; Cox, 1795; Ferris, 1797; Grant, 1799; Hoffe, 1795; Lowe, 1792; Smith, 1794; Williamson, 1799; and Wylde, 1798.

A medical contemporary, as famous for discovering collegiate as "royal" mares' nests, in an attempted analysis last week of the interesting compilation now under notice, had the characteristic effrontery to suggest that had the College authorities perused that journal, the deaths of more Members and Fellows might have been discovered. We need not add that a much greater authority for removing the name of a deceased member is required than the journal to which we have incidentally alluded.

The financial statement of the affairs of the College is also interesting, as it appears that, in the year from Midsummer-day 1867 to Midsummer-day 1868, the receipts from all sources amounted to £11,744 : 14 : 4, derived principally from fees paid for diplomas, which amounted to £9,358 : 11. The investment in freehold property appears to have been most judicious, inasmuch as the rent of the two houses adjoining the College produced £932 : 18 : 6. The sum of £1,199 : 5 was received as dividends on investments in Government securities. The disbursements amounted to £11,557 : 11; the largest item being fees to Council, Courts, Boards, and Committees—viz., £3,525 : 11, exclusive of £200 : 15 : 6 paid to the College of Preceptors for conducting the preliminary examination in Arts, etc. The large and increasing staff of the College absorbed £2,955 19 : 10 in salaries and wages, exclusive of extra assistance in College, Museum, and Library departments. The Government taxes, stamps, and rates, are put down at £1,080 : 12; and pensions to widows and old servants amount to £498 : 12. The sum of £214 : 10 was distributed in prizes and lectures. The Council now publish an account of the funds of which they are trustees, amounting to £5,335 : 13 : 11, divided under the following heads; viz., Sir Gilbert Blane's Naval Medals, £300; Sir Charles Blicke's bequest to the Library, £300; the Jacksonian Fund, £333 : 6 : 8; Alderman Arris's Bequest, £510; Gale's Annuity, £689 : 16 : 5; Clift Annuity Fund, £1,518 : 6 : 6; and the Hunterian Fund, £1,684 : 4 : 4.

Of the present Council, two only have filled the President's Chair (excepting the gentleman now occupying that position); viz., Mr. South in 1851 and 1860, and Mr. Hilton during the past year. Only these two members have also delivered the Hunterian Oration. Of the seventeen students in human and comparative anatomy, no less than eight are dead. Of the officers of the College, taking them in chronological order, Mr. T. M. Stone appears to be the senior, having been elected in 1832; Mr. J. Chatto in 1853, Mr. E. Trimmer in 1859, and Mr. W. H. Flower in 1861. The Honorary Medal of the College has only been presented on four occasions; viz., in 1800 to Professor Wilson, in 1822 to Mr. J. Parkinson, in 1825 to Mr. J. Swan, and in 1834 to Mr. G. Bennett.

In conclusion, it is only just to add that the compilation of the *Calendar of the Royal College of Surgeons of England* reflects great credit on all concerned in the work; the interest in which would, we think, be much increased and duly appreciated by the addition of the honours deservedly obtained by some of the Fellows and Members; as V.C. (Victoria Cross), C.B., M.P., F.R.S.; distinguishing also those belonging to the clerical profession, as a bishop appears here at the head; and, although a list of prize-essayists separately appears, it would be as well to add, after or before the name, the initials J.P. (Jacksonian Prize) or C.T.P. (Collegial Triennial Prize), with the year or years in which the prizes were obtained.

Holden's Manual of the Dissections of the Human Body. Edited by LUTHER HOLDEN, F.R.C.S., and JOHN LANGTON, F.R.C.S. Students of St. Bartholomew's Hospital will be gratified to learn that a new and improved edition of the *Manual of Dissections* has been prepared for their use. Matter has been added here and there, especially concerning the Anatomy of the Brain, the Organs of the Senses, and the Abdominal Viscera. On the present occasion, the name of Mr. Langton is associated with that of Mr. Holden—who acknowledges that to his colleague is in reality due the merit of preparing the edition.

IRON ROD PROJECTED THROUGH HEAD: RECOVERY.—Dr. M. Jewett, of Middleburgh, Ohio, records (*Western Journ. Med.*, March, 1868) the case of a Frenchman, 27 years of age, who, while blasting coal, was struck by the blasting barrel (a five-eight inch gas pipe four feet long) near the external angle of the superciliary ridge of the right side, and in its course it passed through the bone, fracturing the orbital plate through the right anterior lobe of the brain, lacerating the longitudinal sinus through the left middle lobe, and emerged at a point about an inch and a-half above and behind the left ear. The rod lodged after entering about one-half its length, and was extracted by his companions not without considerable difficulty and force, owing to a bend in a portion of the rod in the patient's skull. For several days he was almost entirely comatose. Cold was applied to head, his bowels kept open by large doses of podophyllum and calomel, "the wound was kept open by frequent deep probings," and the head so placed as to favour drainage. Fragments of bone, coagulated blood, and broken up brain tissues, were freely discharged. About the twelfth day he began to show signs of consciousness, took nourishment, and at times seemed to comprehend what was said to him. He gradually improved after the third week, and in eight weeks from the time of receiving the injury was able to leave his bed. There was, at no time, any marked paralysis. In January, 1868, he seemed to be physically as well as ever. He seemed to be perfectly rational, and replied correctly in monosyllables to questions, but was entirely unable to connect words. Up to January 24th, 1868, over eight months from the injury, he showed no improvement in this particular. The amount of mental power was also much impaired.—*American Journal of Medical Sciences*, July, 1868.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 3RD, 1868.

THE RECENT VEXATIOUS QUARANTINE.

THE public journals have recently drawn public attention to the fact that the Spanish and Portuguese Boards of Health, within the last few weeks, imposed a quarantine of from three to ten days upon all vessels arriving at any of their ports, continental and colonial, from England, and especially from London, on account of the reported existence of malignant cholera in this country. Leading articles appeared in several of these journals, protesting against this groundless interruption of free intercourse, and infliction of most unnecessary expense upon shipping; it being notorious, to all who would take the trouble to inquire, that there was no foundation whatever for the rumour in question. The quarantine, after having been enforced for some time, was then either abridged in point of duration and rigour, or altogether removed, by order of the Madrid and Lisbon authorities.

It has been alleged, in explanation of the proceeding, that the mistake arose from their observing that a number of deaths in the Registrar-General's returns during the late hot weather was ascribed to "cholera" or "choleraic diarrhœa", and that they were not aware that the diseases so designated were merely the ordinary summer and endemic alvine fluxes, which here, as well as in every country of Europe, occasion a considerable mortality every year, more especially among children and aged persons.* It is difficult to accept such an interpretation as this. Our Registrar-General's returns are not of yesterday; they have been published regularly for nearly thirty years, and are as well known to the health-authorities on the continent as they are here. Nor has a summer ever passed over without a number —varying, indeed, according to the character of the season—of deaths from "cholera" being recorded. The Spanish and Portuguese consuls in London—who are, so to speak, the official spies whose duty it is to report to their governments the health-state of this country in respect of all quarantine diseases—must have been as well acquainted with the meaning of the term "cholera" in the Returns during the present year as any of ourselves; and, had there been any doubt respecting it, the exact truth was immediately ascertainable from authentic sources and on unmistakeable authority. But this is not the first nor the second time, in recent years, when similar restrictive measures have been resorted to by Spain and Portugal upon the slightest rumour that would seem to justify the infliction of quarantine upon foreign vessels. It would far exceed the limits of this article to go at present into details on this subject, or to relate particular instances of extreme, not to say preposterous, rigour in their proceedings, under the plea of protecting the public health. The whole machinery of the system, as carried out at Lisbon, Cadiz, Vigo, and other ports of the peninsula, is a means of levying heavy expenses upon every ship during the period of her detention; and, moreover, the salaries of the officials consist mainly, if not entirely, of the fees thus obtained. That fiscal considerations have quite as much to do with many of the proceedings of foreign boards of health, as regard for the public health, may be confidently asserted; and the evils thus caused will, of course, be perpetuated as long as the existing system of remuneration lasts.

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* "It is this disease which has been very prevalent this hot summer in London, in Paris, in Vienna, and, no doubt, in the cities of Spain (and Portugal), although the authorities there do not publish the facts. Each fatal case in adults in London of a severe character is described and published in the words of the medical certificates, which have in a few instances applied the term 'Asiatic cholera' to severe algide cases of common cholera. But no one acquainted with the subject can mistake such an epidemic of common cholera for an epidemic of Asiatic cholera. What is wanted is a true return of the fatal diseases of the cities in which quarantine reigns in all its rigours, and opportunities of studying the high rates of mortality from which the people suffer under that *régime*."—*Weekly Return of the Registrar-General*, 21st September, 1868.

One of the points that most demands professional and public attention in this country at the present time is that, within the last two years or so, there has been a manifest tendency abroad to attach more and more importance to quarantine restrictions as a reliable safeguard against the introduction *ab extra* of some epidemic diseases, especially of malignant cholera; and, consequently, to increase their stringency in point both of rigour and duration.

In no former epidemic of that pestilence was a rigid and lengthened isolation, or even exclusion of all arrivals, whether sickly or not, from a suspected port, more perseveringly insisted upon than during the late epidemic of 1865-66; and the views then acted upon seem to have acquired force and stability ever since in various continental countries. Spain and Portugal, of course, take the lead; and Greece, made doubly confident by her renewed immunity, is prepared to go even further still in her severe system of defensive restrictions. France, too, within the last few years, and since the death of Dr. Melier, the late chief of the Sanitary Department, has manifested a decided leaning in the same direction. This was strongly shown in the recent International Conference at Constantinople, where the French element was so predominant throughout all the proceedings, under the energetic direction of Dr. Fauvel, who has become Dr. Melier's successor in Paris. The following are the recommendations of the Conference, as we find them given in Dr. Farr's admirable and most instructive report, just published.

"A vessel from a port in which cholera prevails, though in perfect health, is, according to them, to be *detained ten days in quarantine*.

"A ship, in which cases of cholera, or choleraic diarrhœa, have occurred, should be compelled to discharge its cargo, and to land all its healthy passengers at the lazaretto, to remain in rigorous quarantine until *ten days* after their isolation from the last person attacked.

"As some mitigation of the rigour, a ship that has not had cholera on board, but has been fifteen to twenty-nine days at sea, is to be detained *five days*; and a ship at sea thirty days without any cases, is to be let off with twenty-four hours' quarantine and fumigation. The lazaretto is to be isolated, and to be well provided in hygienic conveniences."

Such is the *Continental* scheme of defence against future invasions of epidemic cholera by sea. Contrast this with the *British* view of the question as represented by Dr. Farr, who, it is presumed, will readily be accepted as a trustworthy exponent of the case.

"In seaports, when a ship with people on board suffering from cholera arrives, the proper course to pursue is to remove as quickly as possible all the passengers unaffected from the ship; and to place the sick, when they can be moved with safety, in a hospital, a house, or a tent, where the medical and nursing arrangements are good, and where all the dejections can be destroyed. The passengers, at the same time, to be cautioned, and supplied with remedies for the treatment of diarrhœa.

"To detain unaffected passengers shut up in a ship from an infected port, is to maintain precisely those conditions which favour an eruption, and to transfer them to a lazaretto is gratuitous annoyance and cruelty. The advantage amounts to nothing; neither Spain, Italy, nor France, where the quarantine has been in force, has ever escaped the destructive influence of any epidemic of cholera. They have suffered much more than England."

But it is not in regard of cholera alone that such marked discrepancy of opinion as to the nature and stringency of needful quarantine measures exists in the medical profession. There is quite as great a divergence in respect of yellow fever; and on this head it is the more necessary that a thorough Government investigation of the subject should be instituted, as the quarantine officials of our own country have, within the last two years, adopted a line of action at Southampton in accordance with the Spanish and Portuguese view of the question, but which is notoriously opposed to the voice of the profession at home. The interests of our colonies, as well as of ourselves, are concerned in a rightful solution of this much vexed topic of State Medicine. A case recorded in the *Times* of September 24th, will be the best proof of this. A vessel, with a cargo of sugar from Cuba, arrived, after a forty-six days' voyage, at Malta, at the beginning of September. She had had no sickness on the voyage, and all on board were then in good health. As cholera and yellow fever existed in Cuba when she sailed, she brought a foul bill. She was, in consequence, ordered to leave Malta at once; but, as there were no provisions on board, a few hours' respite was granted, and she then left. Scarcely was she out of sight, but another vessel, laden with sugar, arrived from Marseilles. She had left Cuba at the same time as the former, proceeded to Marseilles, performed a quarantine of five days there, landed a cargo of rum, changed her papers, and thence sailed for Malta, where she was admitted to pratique without any delay.

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THE Mildenhall Cottage Infirmary is to have the numer of beds increased from six to eight, as originally proposed.

THE Stirling Hospital is proposed to be rebuilt, and the town is to be actively canvassed for subscriptions for the purpose.

THE new Fever Hospital and Infirmary at Kilmarnock has been formally opened in the presence of the Provost and Magistrates, and other officials of the town. The building and furnishing cost £4,163.

IT was resolved, at the last meeting of the British Pharmaceutical Conference, to hold a meeting on Tuesday, Oct. 6th, to arrange a public recognition of the services of Mr. Sandford, the President of the Pharmaceutical Society, in connection with the recent Pharmacy Act. The meeting will be held at the house of the Pharmaceutical Society.

AN IMPORTANT EXAMPLE.

THE town of Kingston-upon-Hull is making arrangements for carrying into effect that section of the Sanitary Act of 1866 which authorises the nuisance authority to cause the removal to hospital of any persons who may arrive at that port in ships, and who are infected with any dangerous contagious disease. Dr. Buchanan has been sent to Hull by the Privy Council, and has had an interview with the Board, and advised them as to the best way of arranging the hospital which they are going to provide for the reception of any infected persons who may be removed from ships in the port.

THE NEW BUILDINGS OF THE UNIVERSITY OF GLASGOW.

It has been arranged that on October 8th His Royal Highness the Prince of Wales will lay the foundation-stone of the new University buildings. The Princess of Wales will accompany him.

EDUCATION IN OXFORD.

"An Old Member", who wrote to us last week on this head, will be glad to find, from our University Intelligence, that the movement, so long in contemplation, is at length fairly inaugurated. The delegates have issued their notice for the first examination for admission to the University of unattached students; and we cordially hope that their endeavours may be rewarded by the entrance of a goodly number of young men eager to avail themselves of the privileges so freely offered.

SIR D. CORRIGAN FOR PARLIAMENT.

There is a very general feeling in Dublin that, if Sir D. Corrigan comes forward for the representation of the city, he will be elected. He is extremely popular, his sterling common sense and public spirit having gained universal respect. In a city, where the medical institutions are so numerous and important, it is felt that a great physician would have many claims on the constituency; and it is freely acknowledged that the House of Commons would be much benefited by the addition of a senator so fully informed on the many medical and hygienic questions which are therein discussed. Ireland has especially felt the want of such members; for the most advantageous measures which are adopted for England, are either denied to the sister country altogether, or only extended after the lapse of many years. With regard to expenses, it is just that a candidate who contests a seat for public, not private ends, should be helped by those whom he serves. For this reason, we feel sure that the profession would subscribe freely, and the political party to which Sir Dominic Corrigan belongs should be generous, for the purpose of securing so able, eloquent, and earnest an advocate of their views.

WHAT IS SODA-WATER?

Is the absence of soda from soda-water a generally understood fact? That is the dictum of a respectable member of the trade, at the recent Pharmaceutical Conference. It was a comment, in the course of discussion, upon a paper by Mr. Proctor, in which he stated that not one of five samples proved what it ought to be, even in cases where the name of the maker might be expected to be a guarantee of good quality. Several speakers insisted that the less soda the soda-water contained, the more it was relished. In answer to the observation that it would be highly interesting if soda-water manufacturers would let the public know what soda-water contains, Mr. A. J. Caley said that four years ago they manufactured soda-water with fifteen grains of soda per bottle, and people complained and said, "What is the matter with this soda-water? it tastes like soap." They then decreased the quantity of soda; and in proportion as they did so, their trade increased. He could not state the exact quantity now dissolved, but perhaps it was the fraction of a grain. He thought it very desirable that people should not be supplied with soda-water with fifteen grains of soda in it, which, he hinted, might not be conducive to health. If a prescription, however, were ordered by a physician, soda-water of a definite strength would be supplied.

THE ADULTERATION OF LEMON-JUICE.

Mr. W. W. Stoddart has been making a series of careful examinations of lemon-juice, *apropos* of the recent Shipping Act. He tells us that, so extensive and abominable were the fraudulent adulterations by which rascally dealers victimised poor Jack, the regulations of the Board of Trade caused a veritable panic among the merchants; for, although considerable latitude was allowed in the requirements as to purity and strength, hardly any in the market would stand the tests and pass the examining officer. Not an ounce of genuine juice was to be bought in Liverpool, Birmingham, or Bristol. Out of a considerable number of samples of commercial lime-juice examined during the past six months of the present year, procured from the great ports, some were plainly altogether artificial, a few contained mineral acid (sulphuric), but most of them were merely diluted with water. The greater number of those obtained from retail shops were artificial, and in no single instance stronger than twenty-four grains of citric acid to the ounce; some were as low as fourteen grains to the ounce. The Board of Trade have very liberally for the vendors fixed a specific gravity of 1030 as the standard, and thirty grains per ounce as the least quantity of acid. The Act has done much good by checking the practice of adulteration.

PROFESSOR GROSS IN DUBLIN.

Many of the hospitals of Dublin have been this week favoured with visits from the great American surgeon; and he expressed himself in many instances gratified with the status of Irish surgery.

A DERBY TOWN COUNCILLOR ON THE TREATMENT OF THE INSANE.

Philanthropists have often a hard time of it (says the editor of the *Journal of Mental Science*) in defending the cause of progress against the local orators of town councils and boards of guardians. Indeed, they sometimes realise, with a weary sense of thankfulness, the promised Conservative reaction, when they regard the conduct of some of those whom accident has hitherto placed in municipal or vestry authority. To these sorrowful illustrations the Derby Town Council has furnished a prominent example. At their last quarterly meeting the subject of the proposed Borough Lunatic Asylum was discussed. Mr. Councillor Pool made the following remarks:—

"Mr. Pool asked how it was there were more lunatics now than formerly. He was strongly inclined to think it was owing to the good treatment they received. It was his opinion that the best plan of treatment would be to treat them with a horsewhip! He was not speaking ironically at all, but meant what he said; a good horsewhip would be the best thing. Under the present system of treatment they were always likely to have a good many lunatics."

His worship, the mayor, listened in silence, and only one member of the corporation thus entered his protest:—

"Mr. Haslam was very sorry to hear Mr. Pool speak in that way about persons suffering one of the most awful calamities that human nature was liable to, and which of all other was most to be pitied, and was most difficult to cure. He would support Mr. Madeley's motion, believing that kindness and a thoroughly contrary treatment to that of the horsewhip was, of all others, the most likely means to effect the cure of those unfortunate persons whose very great misfortune it was to be deprived of the use of their reason. To talk of going back to the days of the horsewhip to drive poor lunatics into reason! It was monstrous in the extreme! He was indeed very sorry to hear such an opinion fall from the lips of Mr. Pool."

When it is remembered that Mr. Pool will probably, in rotation, be a visitor of the Derby Borough Asylum, even that council, of which he is so distinguished an ornament, may understand why it is that physicians, in seeking the charge of such establishments, give so decided a preference to the county asylums under the rule of the great Tory magnates.

A FRIVOLOUS CHARGE AGAINST A MEDICAL OFFICER.

On Monday, September 28th, the guardians of the Uckfield Union, Sussex, concluded a most patient and lengthened inquiry into an allegation against one of their medical officers, Mr. M. Mackintosh, of negligence and improper treatment in the case of a pauper patient. It is pleasing to learn that the result of the investigation was the entire exoneration of Mr. Mackintosh, who was proved not only to have attentively and properly treated the case, but to have shown extra consideration for the patient, in continuing to inquire after her, and allowing wine and nourishment, even when the attendance of another practitioner had been imported into the case by some kind-hearted though officious and misguided neighbours, who probably thought, as is often the case, that they could not better show their own goodness than by seeking for the shortcomings of others. On the part of the Board, after the evidence of the patient herself and others who were brought in support of the charge, and without calling for any defence, the proceedings were characterised as altogether unnecessary; and the individual who had instituted them was requested both by the chairman and vice-chairman to be cautious as to occupying the time and attention of a body of gentlemen by bringing charges against their officers so entirely unsupported by evidence as this; and he was invited for the future not to interfere with the pauper patients. The manifest feeling of the Board was that of entire confidence in their medical officer.

FEVER NEAR LIVERPOOL.

WE hear that a sudden and extensive epidemic fever has broken out in some place near Liverpool, on the north bank of the river. The number of cases has, we hear, been very large, though we are not able to state how many have occurred. We believe that the deaths in the affected places, of which Bootle is one, have, for the last six or seven weeks, been nearly, if not quite, double the average.

THE DUTIES OF PUBLIC VACCINATORS UNDER THE VACCINATION ACT.

A SUBJECT of great importance to the public vaccinators throughout the kingdom came before the magistrates at the Hampton Petty Sessions on September 1st. The point at issue was whether vaccinators holding contracts with Boards of Guardians under the Old, are liable to the penalties under the New Vaccination Act, if they neglect to send certificates of successful vaccination to the Registrar within twenty-one days after the operation. Dr. Clement, of Teddington, who is one of the public vaccinators of the Kingston Union, vaccinated a child on the 27th of July, and did not send the certificate to the Registrar until the 30th August. The Registrar prosecuted for the neglect, and the Bench convicted in the penalty of 20s. Dr. Clement wished to have a case for the Court of Queen's Bench, but the Bench declined to grant one. Dr. Clement stated that it was his intention to carry the case further, for he considered that the penalties imposed by the Act of 1867 did not apply to vaccinators whose contracts were made before the Act came into operation.

EAST SUFFOLK HOSPITAL, IPSWICH.

AT a meeting at the Town Hall, Ipswich, at which the Earl of Stradbrooke, Lord-Lieutenant of the County, presided, it was unanimously resolved to enlarge and improve the hospital, and to raise £3,500 by subscription for that purpose, so as not to trench upon the invested funds. An influential committee was appointed to carry out the object, and £800 was subscribed on the spot.

A NEW PREPARATION OF LUPULINE.

DR. DYCE DUCKWORTH, medical tutor of St. Bartholomew's Hospital, says that it is certainly remarkable that lupuline has not found a place in the new *Pharmacopœia* of this country. It may, however, be said that it is not altogether ignored, inasmuch as it is expected to be present in the hops as ordinarily employed. It is not too much to assert, that the amount of it in different samples varies considerably; and it is certain that this peculiar powdery matter represents the active principles of the entire strobili in a concentrated form. During a recent series of pharmaceutical experiments with the powder, he was constantly struck with the remarkable valerian-like odour evolved from the different preparations; and he was interested to find, in the course of subsequent reading on the subject, that M. Personne had discovered valerianic acid in lupuline. In none of the *British Pharmacopœia* preparations of hop, except the extract, can it be said that the real strength of the drug is removed. The tincture made with proof spirit, which does not thoroughly exhaust the active parts of the scales of lupuline, and the watery infusion, can but inadequately represent the virtues of this medicine. He recommends the following formula. Lupuline, 2 oz.; spirit. ammon. arom., a pint. Macerate for seven days, agitating occasionally; then filter and add sufficient of the menstruum to make up to a pint. The dose of this is from twenty minims to one fluid-drachm. He proposes to call it "tinctura lupulinæ ammoniata." He considers this preparation of the hop as the best we at present possess. According to Christison, the dose of tinctura lupuli should be from one fluid-ounce to one fluid-ounce and a half to produce any hypnotic effect; the ordinary dose consists of as many drachms. Dr. Ives, of New York, states that the tincture of lupuline is an effectual hypnotic in restlessness, the result of nervous irritability, and in delirium tremens. Some advantage, too, is derived from the presence of ammonia in considerable quantity, and this whether the preparation be exhibited as a hypnotic, or as a tonic combination of bitter and ammonia.

MEDICAL SCHOOL DINNERS.

ST. BARTHOLOMEW'S HOSPITAL DINNER.

THE Annual School Dinner took place at Willis's Rooms on Thursday evening, October 1st. About one hundred old pupils and friends met, under the able presidency of Dr. Frederick Farre. The toasts were—"The Queen", "Prince of Wales", "Army, Navy, and Volunteers", and "St. Bartholomew's Hospital Medical School", by the Chairman; "The Chairman", by Mr. Paget. The other usual toasts followed; and the dinner was one which all felt to have afforded a most agreeable occasion for the reunion of old friends and the formation of new friendships, amongst men bound to their school by a common tie.

THE MIDDLESEX HOSPITAL DINNER.

UNDER the presidency of Dr. Francis Hawkins, about ninety of the former students and friends of this hospital met at the annual dinner on Thursday evening, Oct. 1st, at St. James's Hall. After the usual loyal and patriotic toasts, the Chairman proposed "The Army, Navy, and Volunteers", coupled with the names of Inspector-General Shaw and Staff-Surgeon Dalton, R.N. He also proposed "Success to the Middlesex Hospital and its Medical College", coupled with the name of the Senior Medical Officer, Mr. Shaw.

ST. MARY'S HOSPITAL DINNER.

THE first dinner of the old students of this hospital took place on Thursday evening, October 1st, when about one hundred former pupils and friends met at the Freemasons' Tavern, Mr. Samuel A. Lane in the chair. After the usual loyal toasts, etc., had been proposed, the Chairman gave "The Prosperity of St. Mary's Hospital Medical School." The Dean (Mr. Ernest Hart) gave that of "The Students, past and present," which was responded to by Dr. Cyrus Daniell and Mr. Staveley. The toast of "The Medical Officers and Lecturers" was then proposed, coupled with the name of Dr. Sibson, who responded. Mr. S. Coulson gave the health of the Chairman, as one of the oldest and most highly respected teachers and surgeons of the metropolis. A few other toasts followed; and some excellent speeches and songs conduced to render the first dinner of the students and friends of the school a great success.

ST. GEORGE'S HOSPITAL DINNER.

TO celebrate the opening of the new Medical School, upwards of one hundred and thirty former pupils and friends, under the presidency of Mr. Charles Hawkins, met at dinner on Thursday, October 1st, at the Grosvenor Hotel. All the usual loyal toasts were given; then "St. George's Hospital Medical School," responded to by Dr. Barclay, the Treasurer; "The Universities," responded to by Sir B. Brodie for Oxford, Professor Humphry for Cambridge; "The Staff of St. George's," responded to by Dr. Fuller; "Dr. Acland, the Orator of the Day;" "The Governors of St. George's Hospital," responded to by Mr. Robert Hawkins. Dr. Acland proposed the Chairman's health. More than usual interest attached to the occasion, and it will leave recollections in the minds of all St. George's men who were present which will not easily be effaced.

THE INTRODUCTORY LECTURES.

IN obedience to a time-honoured custom, which no school has yet had the wholesome courage to break, the session has been opened at each of the metropolitan and provincial schools by addresses from the teachers, or from friends and supporters of the schools. It would be difficult to over-estimate the eloquence, the ingenuity, the learning, and the wisdom, which have been exhausted on this formal task; and the lecturers will receive the tribute of the admiration of the profession for the skill with which they have succeeded in giving an air of novelty to subjects more than threadbare, and to render attractive, and even impressive, reflections and advice which are more than *decies repetita*. Could we not all agree upon a handbook for students, or a fixed form of introductory lecture for universal distribution, which might save us and our students from the equally painful necessities of composing and listening each year, for fifty years in succession, to thirty or forty annual discourses of an hour each upon the same subject? The abstracts will show with what skill and grace the lecturers have conquered or masked the inherent difficulties of their task.

ABSTRACTS OF
INTRODUCTORY ADDRESSES
DELIVERED AT
THE METROPOLITAN AND PROVINCIAL SCHOOLS,
On OCTOBER 1st, 1868.

ST. BARTHOLOMEW'S HOSPITAL.

THE Introductory Lecture was delivered by Mr. THOMAS SMITH. After a few introductory remarks and some words of greeting, the lecturer addressed himself to the new students as follows.

That you may study your profession aright, I would have you think of it nobly, and now, if ever, justly to appreciate its dignity. It may seem to you, as I dare say it did to me when I sat for the first time on those benches, that you are about to study, as a means of livelihood, a profession as good and perhaps better than others. You look now, as I did then, at these things from a distance; but believe me that a nearer view and a more intimate acquaintance with your life's work will make such of you as are in earnest regard it with very different feelings. Is it nothing to us, gentlemen, that He whose name I scarce dare mention here, when in our nature, deigned to be called one of our craft, and by his superhuman cure of disease chose chiefly to attest his divinity? Is it nothing to us that, notwithstanding the prejudices of a few amiable women, and perhaps some fools, the practice of our profession engenders and fosters within us true humanity, helpful sympathy, and Christian charity, as motives of action? and that, though pity, as mere emotion ending in sighs and tears, withers away within us, yet the brighter and higher gifts and graces of our human nature are purified, refined, and strengthened by frequent exercise? I count it no drawback that our profession exacts of us even laborious work, since the primeval curse pertains not to work like ours; and He who, as part of that curse, condemned man to get his bread by the sweat of his brow, has long since mercifully remitted this part of our punishment. He has even brought it about that idleness should be a curse, a sin, and a shame; while the necessity of gaining our bread by the sweat of our brains should be to all but the most ignoble natures an inestimable blessing—aye, even a keen and enduring pleasure. Nor do I count it any drawback that our profession is little likely to bring us wealth or high social rank. It will, at least, secure to us and ours a competency; while it will gain us high rank in the esteem and love of our patients.

After some further remarks, the lecturer proceeded:—Gentlemen, why do I tell you all this? and why do I thus, as it may seem, unduly magnify our office as doctors? Not, surely, that we may think the more highly of ourselves; but that you may the more earnestly devote yourselves to your work, seeing how worthy of your highest energies and of a life-long devotion is the profession to which you have the happiness to belong. Medicine, as a whole, is not a science properly so called, though it presses into its service many sciences. It has none of the exact laws of a true science; nor are its doctrines capable of demonstration. Medicine is an art—the art of healing; and the more exact studies of anatomy, physiology, and chemistry are but handmaids to medicine, and are subservient to the main object of your work, the aim and end of your profession—namely, the art of healing. The true artfulness of our profession consists in the skilful application to the treatment of disease of all means supplied to us by science and empiricism. The art that you are about to study, in its practice, will require chiefly the exercise of your higher intellectual gifts; but you will have to cultivate in no mean degree the more material faculties of sight, touch, hearing, and the muscular sense. And this is no small advantage; since all useful knowledge that you may have been at the pains to acquire, and many accomplishments, may be turned to good account; while the muscular precision and the quickness of hand and eye acquired in school-games and field-sports will find their uses in the practice of your profession. Begin your work here with the thorough determination to do your duty as Christian gentlemen and earnest students; cherish an admiration for honest hard work, and you will soon learn to love it, and to appreciate its true dignity and helpfulness; hate and despise idleness, for you will too soon see its accursed folly and helplessness.

The importance of a careful and considerate choice of friends was pressed upon the students, and the advantages of combining practical with systematic work. Students were advised to question their teachers freely, and cautioned not to depend exclusively on their help. Attention was drawn to the disproportion between the increasing requirements of examining boards and the restricted period of studentship; and students were cautioned against making the passing of their examinations the only object of their work. Third year's men were advised to study the natural appearance and healthy action of such parts and organs of the body as admit of examination, on their friends; and upon their friends to learn the use of the ophthalmoscope, the stethoscope, and the laryngoscope. "You will thus," said the lecturer, "quicken your powers of observation; you will the more readily notice deviations from the standard of health; you will have learnt the very alphabet of the language in which the body makes known its wants and disorders, the language in which you are hereafter to read the diseases of your patients—namely, the language of symptoms. Symptoms have been aptly termed the body's mother tongue. This mother tongue you must study, and learn to understand not only its plain outspoken words, but you must be able to gather meaning, it may be, from a few broken, inarticulate whispers."

After some remarks on the necessity and advantage of undergoing the discipline of clinical clerkship and dressership, the lecturer proceeded to remind young surgeons that, though a diploma legally justified all in pursuing their calling, yet it in no degree diminished their moral responsibility; nor did it release any from a studentship which should be lifelong. The importance of promptitude in the practice of medicine was dwelt upon; and all were urged to become house-physicians, house-surgeons, or assistants in private practice, before undertaking the more serious responsibilities of their profession. "Our chief duty as medical men," said the lecturer, "I conceive to be to do all in our power for the welfare of our patients; and this devotion to their interests must include all means of alleviating suffering that medicine, morality, and manners afford. In your intercourse with the sick, it will be both for their comfort and your advantage that you should cultivate a natural, quiet, and kindly manner; and that you should avoid the eccentricities of behaviour that are said to have characterised some of the masters of our art. Bring also to the bedside of your patients a cheerful countenance and 'pleasant words, which are sweet to the soul and health to the bones;' and, if possible, that 'merry heart which doeth good like a medicine;' and, as was said by one who was both philosopher and physician, ever let your manners or *mores* be but the expression of the habitual frame or *mos* of your minds."

The propriety of exercising a becoming reticence concerning the ailments of those entrusted to their care was pressed upon young surgeons. The disappointments of early professional life were spoken of; and attention was drawn to the innate tendency to heterodoxy in certain minds, and the thirst for lying wonders that such minds exhibited. Mr. Smith quoted Bacon's views on the fallacy of judging of the skill of medical men entirely by the results of their treatment of the sick. The duties of medical men to one another were briefly sketched; and, in conclusion, the lecturer spoke as follows. "I said just now that our manners should ever be but the expression of the habitual frame of our minds. And the habit and temper of mind which should animate us in our ministrations to the sick, I can in no way describe so well as by reverently paraphrasing the words which so expressively tell us of the Divine Physician's tender care and true sympathy for us in our soul's sicknesses; namely, we must be touched with a feeling of their infirmities. The refining and elevating influence of such true sympathy will prevent us from ever making our noble office subservient to ignoble ends; and, though it may interfere with our becoming rich, it will raise us into a higher and purer atmosphere, above the petty vexations and disappointments of professional life. For what, if by our work we become neither rich in worldly wealth, nor great in the world's esteem? Surely 'a good name is rather to be preferred than great riches, and loving favour rather than silver and gold.' And what, if we achieve no social distinction? We may one day find, by the Divine help, as many have found who are now gone to their rest, that the conscientious discharge of our duty in that profession which brought us neither wealth nor rank 'was to us none other than the house of God, aye, and the very gate of Heaven'."

CHARING CROSS HOSPITAL.

THE Introductory Lecture was delivered by Dr. POLLOCK.

After a few words of welcome to old and new friends upon the occasion of their again assembling for the Winter Session, and some observations in favour of the custom of giving Introductory Lectures, Dr. Pollock observed that the study of medicine was one of the greatest interest, involving, as it does, a knowledge of chemistry, physiology, botany, and other sciences. Doubtless there were dry matters of detail to be mastered, and many difficulties to be overcome; but even these became easy and leasant as proficiency in them was attained. The bedside itself was a source of the greatest interest to the practical physician or surgeon, and there was an amount of pleasure and enjoyment to be got out of the practice of medicine equal, at least, to that to be derived from any other profession. It was certainly a very arduous calling; one requiring much patience and self-denial, and success in which could only be attained by real honest work. As a profession, medicine at present held out few prizes even to the most successful, and often the only reward for much anxious care and attention were the grateful thanks of the poor patient and his friends.

The lecturer urged upon the students to make the most of their early years of student life, by attending diligently to the lectures on the various subjects, and keeping up with them by reading in the text-books. At the same time, the student should look about him, and make use of his own observation to confirm the views laid down by lecturers and books. Dr. Pollock alluded to the extreme views that had at different times been taken as to the treatment of disease, such as the excessive bleeding and inordinate use of mercury in former times; then the over-stimulating by brandy, which was so much in vogue a few years ago; and expressed an opinion that the best treatment probably lay between such extremes. It was necessary in studying medicine to give a fair share of attention to each subject, not letting any one course of lectures engross the time of the student too much, lest it should lead to the neglect of some less congenial, but equally important matter. Regular habits of study should be acquired, and never broken into, and work should be made the chief and foremost pursuit of the day. When a difficulty arose, its solution should, if possible, be sought at once, while it was fresh in the memory, or it might be forgotten and turn up again at some inconvenient time. Dr. Pollock insisted upon the great value of accuracy in the medical man, as it was better to know nothing on a subject than to be misinformed. The system of "cramming" was a very bad one, for it was quite insufficient to teach a profession in which the first physicians and surgeons were still students. While attending to the mind, it was necessary not to neglect the body, especially to those who would be called upon by and bye to take charge of the health of others. A certain amount of recreation and holiday was desirable, and in some cases absolutely necessary, for the well-being of the individual. Excessive mental application enfeebles the mind quite as much as excessive physical exertion weakens the body, and rest and relaxation are equally necessary for both. To be always at work was very likely to impair the quality of the work done—no small consideration—besides which it was against the laws of nature, whose code could rarely be infringed with impunity. No doubt this advice was very old and stale—so much so, that everybody seemed to have forgotten it in this age of eager competition. Dr. Pollock then alluded to improvements in the hospital and school, and changes in the medical staff, which, he hoped, would materially assist in the prosperity of the institution.

In looking at the profession at large, it was gratifying to observe an increased appreciation of medical work, especially in the shape of hygiene and sanitary reform. The treatment of disease was beginning to receive more attention than formerly; and the establishment of the Clinical Society was a great feature in the past year. Much attention had been called of late to the action of various drugs, and the labours of Dr. Anstie in the investigation of the action and uses of alcohol, and Dr. Harley's lectures at the College of Physicians on Conium, Hyoscyamus, and Belladonna, as well as the experiments of many other eminent men, were of the highest value. The successful administration of morphia by subcutaneous injection led to a hope that other medicines might be given with advantage in the same way. The busy medical practitioner might not be able to devote himself to any special scientific investigation, but he might readily add something to what is known of the action and uses of different medicines, and to such a good work Dr. Pollock, in conclusion, commended his hearers.

GUY'S HOSPITAL.

THE Introductory Lecture was delivered by Dr. MOXON.

The lecturer, after alluding to the strong varieties of character which are brought out by necessary habits in the several branches of social usefulness, laid this down as the distinguishing character of a profession as contrasted with trade—that every member of a profession directly uses general principles in the practice of his profession; a medical man especially must be capable of exercising judgment where decisive and conclusive motives are not present. Hence he strongly urged on them the necessity of maintaining their minds free and capable of independent action. For the licensing bodies now demand a vast extent of knowledge in candidates for diplomas, and much knowledge cast hurriedly into the mind will be too likely to smother young intellects, as too much fuel smothers scarcely kindled fires. Men are a preposterous race, doing things hind-side before—we first talk, then learn grammar—we first reason, then learn language—we learn much, before we think what it is *to learn!* He would have them now be beforehand, and as they were to plunge into so many sciences, consider what it is to learn. 1. It is not storing into capacities, though many of our expressions imply that it is so, and some young men seek a reputation for unfilled capacity, which is folly, for the mind is never greater than what it holds. 2. It is not receiving the seeds of knowledge, for the function of the receiving mind is active—it is *receptive activity:* the mind receives learning as the germ receives pollen, and then arises new living thought, varying in different minds, and then improving and propagating itself. Every mind is a little Darwinian world in which different ideas struggle for existence, and those best adapted hold their ground. Reason in them must take the place man has in nature—it must aid in the struggle those that are most profitable. Such being the relation of the mind to learning, how does the kind of learning affect the process? How are we to study medicine? The lecturer here entered on the question, whether there are "sciences of medicine and surgery"? He said, true sciences are of three classes, and took mathematics as a type of the first, which is pure reasoning; chemistry, of the second, which is reasoning from the facts of the chemical elements; and zoology, of the third, which is purely classification. He compared the so-called science of medicine with each. It is not like mathematics or chemistry, because each of these is constructive:—the first, of the elements of thought; the second, of the elements of nature; and we have no constructive knowledge of disease. It aims to be like zoology, but is disqualified because we cannot define a disease; and our knowledge of them is not comparable knowledge, for when one disease is a pain in the leg, another a growth in the stomach, and another a spider in the skin, they compare like the solar spectrum and the key of C major with essence of peppermint! Some people erroneously call anatomy and physiology sciences; but they are no more than common narratives of fact. The practical result of these reflections is, that medicine should not be studied in books as sciences are studied. Learn diseases in nature, as facts. Know them not as the zoologist knows his genera and species, but as the hunter knows his leopards and wild-boars. No writer or speaker can describe a disease. The best attempt is only like a landscape taken from a railway train at speed, or as the print of a glorious battle where life struggle is chilled into dead shape. They must see individual cases for themselves, and so know the history of disease from its biography. But should they, then, discard science? Assuredly the very opposite; if there is no discipline in the facts, they must bring discipline in their minds. Like a colonel of irregulars, the physician must be the genius of discipline over his disorderly facts. This is the true theory of medical education; we must have minds disciplined, yet free; and these opposite requirements must be supplied from opposite sources. Freedom you can only get yourselves. The Medical Council will discipline you—cutting your garment of learning to their regulation model of a doctor. They carry their discipline too far; they fill every hour of your day. Yet what can they, in their curriculum, offer you in place of that self-help for which they leave you no time? Your course of study will be in stages; layers of learning will have to be deposited on you, like geological formations or coats of paint; or, like a plaster image, you will be put together, the legs and the body crumbling while they make the head! Meanwhile, take care of yourselves; see that you grasp firmly the principles of the knowledge you gain, though you cannot retain the details. Do not cram for your examinations. The examination is not your real trial; you only give bail there to appear before society, from which there is no appeal. This knowledge of principles through details can only come slowly; for your acquiring intellect is a point which traces with a single point that vast chart by which you must pilot your future patients. He urged them to learn to observe well; to study anatomy practically, for that is the best practice in observation. Medical literature should only give them their meanings of names; their eyes should show them the nature of things. When medical literature goes beyond what we can all see, it gets contrary and uncertain, and there is only one way in which we can avoid being deceived by it, and that is by so observing for ourselves that we can keep a check upon the writer; and follow this rule, "Never trust a man for what he cannot know"—which would do away with opathies and theories. Faith may lead us, but reason must guide us. The place of reason is above and behind faith—for our oracles are uninspired. As to medical progress, there is no such thing as progress except for conveyance from place to place. All improvement is development; we must not leave what is behind, and we have no mark to press to. It is because physicians press after great aims that we make so little advance in our development. For when the facts we see do not promise to fulfil the aims we have, we turn away from the facts and guess our way towards the aim, and call the guesses "theories" to make them respectable. Beware of medical theories; they are images made out of a little dust of facts, into which some one breathes a little puff of himself—a breath of life that is not divine; and they fall to pieces again when they have served their makers' purpose, and are blown about, the desert dust of medical literature. Do not guess. A guess is the squeak of reason oppressed by doubt. It no more helps reason than cries lessen pain. Be patient under doubt; do not let it make you guess in haste. Remember the danger of generous minds, which is this—that, in striving to know what cannot be known, they leave unknown what they might know. We live not to an aim, but to a duty, of observation and guidance. The aim at cure spoils our social reputation. Those minds that are shaken by sickness or anxiety suppose that we cure, and we allow the supposition. But by-and-by they give Nature the credit, and despise the pretenders, just as their day-enlightened forefathers drowned the witches at whom they had shuddered in the dusk. The public will not forsake you. Not hope but fear caters for the doctor; let us patiently discharge our noble duty of observers and guides, striving to be to each individual sufferer under our care all that a man can be to his fellow man in sickness, and no more. We shall try to make you learned—a *vir doctissimus et ornatissimus et clarissimus*. Now, remember, while you are getting all the fashionable learning, that the newest patent clarified candle may give no better light than a well managed "dip"—and you live for duty, not for admiration. Get firm possession of that sort of knowledge which your daily usefulness will keep bright by activity, and add to it all the accomplishments you can acquire. In your noble profession, no personal excellence is lost, but rather all will help you in your wide range of duty, which requires you to create faith and hope, and to find fresh interest for the weary of life; and not merely to know things of which other people are ignorant.

KING'S COLLEGE.

THE Introductory Lecture was given by Dr. GUY, in the presence of Dr. Barry, the newly elected Principal, to whom on behalf of his colleagues and himself Dr. Guy offered a respectful and cordial welcome, paying, at the same time, a tribute of respect to Dr. Jelf, who has lately resigned the office of Principal, after nearly a quarter of a century of efficient and zealous service. The lecturer then adverted to the custom of beginning the business of the Winter Session by an Introductory Lecture; showed how the lecture had come to assume its present shape; and stated that he was influenced in his choice of a subject by the publicity now given to these discourses. The subject which he had selected was *Education* as illustrated by our medical usages and experiences. Addressing the new students as persons whom he assumed to be imperfectly informed of the course of study which they must pass through before they could be qualified to practise their profession, Dr. Guy first drew attention to the preliminary examination now required by all the licensing bodies. He reminded them that the profession they had chosen was both a learned and scientific one; that it *was* remarkable for scholarship in an age when all that existed of medical science was to be found in ancient Greek and Latin authors, and when Latin was the spoken language of educated Christendom; that it *is* remarkable for scientific attainments now that the human frame, the first object of its study, has been shown to be a *microcosm*, or world in miniature, comprising, within its own narrow compass, a very universe of delicate mechanical adjustments, microscopic structures, recondite chemical reactions, and mysterious forces—all that goes to constitute a living body, the tenant of a busy, conscious mind and soul. Now, it so happened that the Greek and Latin languages, which were once the storehouses of all our knowledge, had come to be the keys to the full and complete explanation of a large proportion of our technical terms, and one of the two (Latin) was still the convenient language of the physician's prescriptions. It was but natural, then, that the examining bodies should, at some time or other, require the medical student to give proof that he had these keys to knowledge. But inasmuch as Latin and Greek are taught in all the schools frequented by the upper and middle classes of English society, and with them the grammar of our own language, arithmetic, geography, and the elements of polite education; and as each scholar was supposed to bring a knowledge of these things from school, our examining bodies very properly decreed that no one should enter the profession except by this path of scholarship. The candidate must produce proof that he really did possess that knowledge (Greek for the present excepted) which he was sent to school to acquire. Supposing this preliminary process to have been gone through; that the student was possessed of these keys of knowledge, and that, as far as early education could make him such, he was a gentleman among gentlemen; he had yet to become a scientific man among men of science, and a practical man, capable of performing all the duties of a difficult and responsible profession, in an age remarkable for its practical character. In order to understand and appreciate the professional education of the pupil thus prepared, it was necessary to point out one or two peculiarities which mark the medical profession, and distinguish it from every other. In the first place, the life of a medical man is a life of action. He is called to a patient, and must prescribe for him before he leaves him; he is summoned to an accident or wilful personal injury, he must act at once on the spot. He cannot consult authorities, he cannot procure aid or counsel from others. He must act there and then. He must carry all his knowledge and all his acquired skill about with him. It is only after his first visit, and in what we call chronic cases, that he can refer to written authorities, or summon experienced persons to his aid. And this, his knowledge and skill, have to be applied to no limited range of objects. Diseases, deformities, accidents, injuries, count by hundreds. A very complete nomenclature of the College of Physicians, compiled with care, but not yet published, has no less than 1,136 names of diseases, injuries, and accidents! Again, the services which the medical man renders to individuals may involve public consequences. Out of his attendance on injuries and accidents, on wounds and poisonings, may spring the responsible, and often difficult, duty of aiding and enlightening the public by giving evidence in courts of law, especially in the coroner's court, where, as his evidence is given soon after the event to which it refers, there is little time for preparation, reference to authorities, or consultation with others. The education of the medical student has had to be shaped, so as to meet these necessities and peculiarities of his future career as a practitioner. He has had to be supplied with means and opportunities of acquiring knowledge by oral teaching; and skill, by practice under proper guidance and direction. He is bidden to attend lectures on certain prescribed subjects, and also to do certain things with his own hands. The lecturer then entered into some details of the several lectures and courses of practical instruction which the student is required to attend, and expressed his belief that the time could not be distant when the important subject of hygiène, to which English science has so largely contributed, and for which England, with her large cities and busy manufactories at home, and her merchants, soldiers, and colonists scattered over the whole habitable globe, has so much occasion, will be made the subject of a distinct and separate course. To this outline of the medical curriculum—of the duties imposed on the student by the examining bodies—the courses of lectures he must attend—the work he must do—the lecturer added this by way of warning. That the examinations which are to test the student's attainments, and determine his fitness to practise his profession, are becoming every day more and more searching, more and more real; that it is, therefore, more difficult than ever it was, for a student who has neglected his lectures, or, what is little better, attended them in a dull and listless manner, lounging into the theatre when the lecture is half finished, keeping up a conversation with his neighbours whom he must have seen before the lecture, and will see again directly after, distracting the attention of teacher and audience by some misplaced pleasantry or practical joke—it is more difficult than ever it was for such an one to pass the ordeal of an examination, especially if he treat with like neglect his opportunities of practising what the lecturers are designed to teach. This description, Dr. Guy was happy to think, applied to a small minority in all our schools. The majority do avail themselves of the opportunities afforded them, and never allow themselves to forget that though, to pass certain examinations is their most pressing object, there lies beyond these examinations, in the not distant future, the exercise of a profession in which ignorance is always perilous, and may be fatal. Examinations are a barrier to shut out incompetence, to check a career of idleness and folly; they are not the goal at which any wise and thoughtful student aims. Looking forward, as he does, to a life to be spent in the practice of a responsible and beneficent profession, and knowing, as he must do, that the years of pupilage are as favourable to continuous study and persevering work, as those of active professional life, with its mixed obligations, incessant interruptions, and domestic cares and anxieties, are hostile to it, he dares not throw away the golden opportunity. He avails himself of the means of instruction so liberally provided for him; and the good habits that he forms in the very act of following out the prescribed course of study, are in themselves an education of which he will reap the advantages in after life. Now the medical education of which he had given so imperfect an outline, like the examining bodies which prescribe it, and the schools and colleges which provide teachers and the means and appliances of teaching did not come suddenly into existence, like Minerva springing fully armed from the head of Jupiter—Wisdom, the child of Authority. No one man, or body of men, taught by experience, and aided by wise suggestions had ever sat down deliberately to study the profession of medicine—the art and science of healing in all its branches—and having searched out all its requirements, and gained a clear insight into all its peculiarities, had then set itself to work, with like deliberation, to prescribe the places where it shall be taught, the length of the educational course, the items of instruction, theoretical and practical, which it shall comprise, the qualifications of the teachers, the material and mechanical provisions to be made for teaching, the proofs to be demanded of the student that he has entered on the prescribed course of study, that he has continued to pursue it, and has at length completed it; and lastly, to crown all, the nature of the examinations that are to test the knowledge he had acquired and his qualifications for the practice of his profession. Of such a deliberate procedure we had no example to produce. Possibly, if it had ever taken place, it would have been like one of the paper constitutions of which we read, not unreasonable in itself, very logical if you will, but a lamentable failure when brought to the test of actual working. It goes forth a giant, clad in armour of proof, somewhat given to boasting, but it has some vulnerable place in head or heel; and the unlooked-for pebble from a sling, or arrow from a bow, inflicts the mortal wound. It was not thus, it was not at all after this fashion, that medical education had come to be what it now is. It had been no sudden creation, but a growth, slow and gradual—gradual in all its branches, no less than in the whole tree. There had been pruning of decayed limbs. here, grafting of new and vigorous buds there, but continuous growth and development everywhere, and, as a final result, an interlacing and blending together of several independent growths into one good clump. It would be interesting, it might be useful, to justify these statements by examples, beginning with the examining and licensing bodies. Well! exactly three centuries and a half ago (in 1518), the College of Physicians was founded, the Barber Surgeons having been incorporated more than half a century (1461), and the Surgeons just six years (1512) before them. How learned and how liberal the founder and first elects of the College of Physicians were; how they brought their learning and theology from Oxford, their physic from Leyden, Padua, and Bologna, and their wealth from church livings and preferments, or grants of abbey lands; how dearly they loved their profession; how tenacious they were of their rights over Barber Surgeons and Apothecaries, insisting on directing the operations of the one and conducting the examinations of the other; how, in the forty-first year of their existence they graciously forgave Dr. John Geynes on his humble recantation, his heresy in impugning the infallibility of Galen—(strange lesson this in the matter of infallibilities)—how they received a Royal visit, and enrolled among their Fellows a Marquis of Dorchester and the Dukes of Montague and Richmond—in a word, with what dignity, gravity and authority, they comported themselves, may be found written in many a page of authentic history. This, then, was our first examining body. He should shortly speak of their relations with the barber surgeons; but at present should content himself with showing that the three representatives of the medical profession, in a comparatively rude and undeveloped state, could be found consulting together and co-operating within a century of the foundation of the College. We see them assembled round the deathbed of Prince Henry, eldest son of James I, and we learn that "physicians, chirurgeons, and apothecaryes" were dismayed and perplexed, and, driven as a last resource to a local application in the shape of a "*cock cloven by the backe and applied to the soles of his feet.*" It ought not to be forgotten that this happened no less than two centuries and a half ago—in the year 1612, just six years before the publication of the first *London Pharmacopœia*. But that they might not carry away with them too unfavourable an opinion of the consultations of the faculty on the resources of physic, he would remind them of another occasion on which His Majesty William III being the patient, and the munificent Dr. Radcliffe the physician consulted, the doctor was able to suggest a line of treatment which succeeded so well that a few months afterwards the king was able to fight and win the battle of the Boyne. Between the two ancient corporations of barber surgeons and surgeons it would seem that such intimate relations had grown up as to give some importance to an event recorded as happening in 1745;—the dissolution of their alliance. At or about this date (about a century ago) we had indications of great activity on the part of the surgeons, thus happily emancipated, and we are not surprised to find that, in 1799, parliament bought and consigned to their vigilant and skilful keeping the noble museum of John Hunter, or that the crown granted them a charter in the year following. If he added that the Society of Apothecaries, in 1815, obtained those legal powers of which they have made, like the College of Surgeons, such good use for the promotion of sound medical education; and if he further reminded them that a charter was granted to the University of London in 1837, and that at length, in the year 1858, the whole profession had obtained a central representative and controlling authority in the Medical Council, he should have sufficiently shown by what a gradual process of change and development our examining and licensing bodies had come to be what they now are. Dr. Guy then proceeded to take a similar quick survey of the rise and progress of instruction by lectures. He had already intimated that the first teachings by lecture or demonstration were given by physicians, and that their first subject was anatomy. It was in the year 1540 that Dr. Caius, the founder of Caius College, Cambridge, was deputed by the College of Physicians to give anatomical lectures in the Hall of the Barber Surgeons;—a place chosen for this, among other reasons, that that corporation had had conferred upon them the right to claim every year the bodies of four executed criminals. A more formal appointment appeared to have been made by the College in the year 1596, when Dr. Paddy was chosen reader of the Anatomy Lectures, and from this time forward to about the middle of the eighteenth century, a succession of physician-anatomists, with such names as Harvey, Glisson, Mead, Willis, Lower, William Hunter, and Matthew Baillie, among them, carried on an unbroken chain of anatomical teaching. Meanwhile some provision was made by means of endowed lectureships at the College of Physicians and Gresham College for teaching other branches of medical knowledge. The Lumleian "Surgery Lecture," founded 1585, and the Gulstonian Lectures, best described as Pathological, 1632, and the Lectures on Physic at Gresham College prior to 1615, show that these subjects were not neglected. Coming down to more modern times, we found Dr. William Hunter succeeding Mr. Sharpe as lecturer on surgery to a class of naval surgeons. This occurred in 1745, a date of special interest, as it was then that the alliance between surgeons and barber surgeons was dissolved, and Dr. William Hunter established his celebrated anatomical school. But this venture of William Hunter's was by no means the first of its kind; for Dr. Hunter himself studied at the school of Dr. Frank Nicholls, who seems to have achieved a high reputation as a teacher of anatomy at Oxford about the year 1730, at which date he was admitted to the Fellowship of the College of Physicians. Of Dr. Nicholls' teaching we knew this much; that he professed to teach anatomy, physiology, and the general principles of pathology and midwifery, in thirty-nine lectures; and we are told that Mr. Bromfield, a distinguished surgeon and lecturer at St. George's, comprised anatomy and Surgery in a course of thirty-six lectures, while Mr. Nourse, at St. Bartholomew's, embraced "*totam rem anatomicam,*" in twenty-three. From about the middle of the last century to the present date, the history of medical teaching was one of constant and rapid development, taking place with accelerated speed from the first years of the present century, when college and hall began to exercise their legislative powers, and to prescribe their respective curricula. After glancing at the services rendered to the profession in their day by the private schools, and at the foundation of hospitals and other means of practical teaching, and thanking the Council for the new laboratory just fitted up, Dr. Guy said that he would try to state in plain and simple language what the professors had undertaken to do on behalf of the students, and what they might reasonably claim from them in return.

The examining and licensing bodies say that certain courses shall be given, and certain means of practical teaching provided. We are able, through the liberality of the Council, to do their bidding; and I can safely assert that, at no time during my long connection with the College, has the question been raised, how little we could contrive to do. It has always been how much, with our means and our command of time, could we dare to undertake. You will understand what I mean if you will bear in mind that in this, as in every other London School of Medicine, the teachers are non-resident, and do not and cannot undertake to devote all their time to the duties of their chairs. Each lecture, each attendance at the hospital, fills its allotted place between engagements, often of the most urgent kind — engagements, many of which are so uncertain in duration, as to lead, even with the most punctual and precise of men, to some irregularities of attendance. But, if I am asked whether I would exchange this system, with all its obvious drawbacks, for one in which students and teachers alike, being shut up within the walls of a college, the one shall be as exclusively occupied in teaching as the other in learning, I answer, without hesitation, that I would not. For I believe that, under our present system, the teacher brings with him into the lecture-room from the world without a certain vigorous, lively, practical spirit, which makes itself felt in his teaching. But be the system good or bad, the student would do great injustice to the teacher if he did not bear the fact in mind; and he would do injustice to himself if he did not provide some useful occupation during the time he may be compelled to wait. At the hospital, accordingly, where such disappointments must occur, the student has a reading-room provided for him, and at the college, where they are less common, a library. But, in this college, we have never rested satisfied with meeting the requirements of the examining and licensing bodies. The instruction which we give is theirs, but we are not without a will and a method of our own. We see that the student, especially when he first comes to us, wants guidance and help in his studies; we provide a resident tutor (and let me say, in passing, that we are very proud of the men who have held that post, as well as of the men who have filled the analogous office of demonstrators of anatomy), and that we can, with the utmost confidence, recommend our present tutor, Mr. Yeo, as one to whom the student may have recourse in all his early difficulties and perplexities. Again, the examining and licensing bodies require from the student certificates of attendance at the several courses prescribed by them. We have our own method of ascertaining the fact of attendance, and our own rules respecting the signing of the schedules; and with the assisiance of the dean of our department, we are able to do our duty of certifying or not certifying according to the truth. But I need not say that we are ready and willing to make allowance for the conflicting engagements which must constantly occur in carrying out a scheme of education so complex, and in certain points, as I think, erring on the side of excess of requirement. We, then, on our part, feel that we are under an obligation to sign certificates and schedules only in accordance with the truth: and we expect that the student, on his part, shall so attend his lectures, that he shall have no need to ask of us an unworthy concession, nor we have the pain of a refusal. There is yet another matter in which the College takes a line of its own, and does not rest content with carrying out the requirements of the examining and licensing bodies. We all know that there are two distinct plans or methods of education, advocated with equal warmth and sincerity by their respective supporters. On the one hand, it is said that secular instruction may be given in the same class-rooms to persons of every creed, provision for religious teaching being made by those parents, guardians, or others who have already provided the secular teaching; on the other, it is contended that the two kinds of teaching, secular and religious, should be carried on together by the same persons making themselves responsible for both. This last, I need not tell you, is the alternative embraced by this college. Its matriculated students make profession of the same faith, are members of the same church, and find here, under the same roof, that union of secular teaching with religious instruction and observance which obtain in every well-regulated household, in every school, and in all the colleges of our old Universities. It is not necessary to condemn the opposite system; in order that we may exalt our own; but it is fair to say that the one which this College has chosen has an air of unity and completeness, and gives a promise of harmonious co-operation difficult to overvalue. To my own mind, it goes nearer to realise the idea of *education* as distinguished from *instruction*, than any other system can do.

Passing to the medical curriculum as it now exists, Dr. Guy expressed the opinion that it admitted of some obvious improvements. He said: "As the subject of medical education is now attracting a great deal of attention, and as the office of Dean of the Medical Department, which I had the honour to hold for a term of years, gave me some experience, and led me to form some definite opinions on the subject, I will take this opportunity of stating what those opinions were and are. In the first place, I was alive then, and am still more alive now, to the objections that exist to the demand made on the student that he attend more than one course of the same lectures on the same subject. I would give one opportunity, and one only, for attendance on the same course; and I would make no exception, however important, or however hard to learn, the subject may seem to be. In the next place, I think that there is a grave objection to the immediate attendance on the practice of the hospital, now demanded of the student. In the third place, I think that, if possible, the attendance of surgeons and physicians at the hospital should be so arranged that the students who ought to be following the physicians round the wards, shall not be drawn away by the naturally superior attractions of surgical cases. But lastly, and above all, I attach importance to a plan which, in former years, I had many opportunities of recommending—that of beginning the education of the medical student in the summer instead of the winter. This change might be made to harmonise admirably with the plans of those who insist that some subjects comprised in the present medical curriculum (such as Botany), should be taught to the student before he begins his medical education properly so called. If, in the three months of a preparatory summer course, Botany, Zoology, Physics, and Chemistry (such part of inorganic chemistry as might be selected for the purpose), and with them that part of Anatomy known as Osteology, were taught, the student might enter at once, at the beginning of the following winter session, on the practical work of the dissecting-room, and the six winter months of anatomical and chemical teaching, added to the three months of the previous summer, would supply nine months of instruction in those two important subjects. A preparatory summer session, with three subsequent complete years of study, and the abandonment of all duplicate courses, would give ample time for the deliberate study, by lectures, of all the subjects (public health, and perhaps medical psychology included), which it would be reasonable to require of the whole body of medical students."

Dr. Guy then made some application of the facts he had brought forward relative to medical education to the subject of *technical education* generally, and concluded by commending the profession as one of which, as the first among the arts (if not a science in the fullest sense of the word) its members need not to be ashamed, and brought his lecture to a close by wishing the students all honour, happiness, and success.

LONDON HOSPITAL.

The Introductory Lecture was delivered by Mr. Critchett.

The lecturer commenced by alluding to some of the changes which time had wrought since he was a medical student. Of those who then held the foremost rank how many had passed away; but though the Blizards and the Headingtons were gone, the spirit that animated them still survived in the present professors, and the germs of thought they sowed had fructified. If they could revisit us, they would find our hospital adorned with expanded wings, our school changed into a college, and with an increasing body of intelligent medical students. Though men of all grades of the profession had honoured him with their presence, it was to the young medical student that he wished chiefly to address himself on this occasion. He must first explain to him the nature of his studies; and, secondly, attempt to unfold to him the character of the profession to which he aspired to belong. The end that the medical student had to attain was the knowledge of disease; to this there was only one road. The accuracy with which every possible departure from the normal standard was estimated, would be in exact proportion to the knowledge of the form, structure, and functions of each organ. He (the lecturer) would go yet a step further: an accurate acquaintance with the form, structure, and functions of any organ would often enable the student to presuppose the diseases to which it was obnoxious, by presupposing every possible deviation from the normal condition; and that which was thus presupposed or hypothesised would, in most instances, be found to anticipate that which actually occurred as a morbid phenomenon. This principle he deemed well worthy of special attention, because it very much facilitated the comprehension, and simplified the grasping and arrangement of disease; and because it had been the means of leading up to many brilliant discoveries, and opened up a new method of inquiry. The lecturer then gave some curious illustrations of this view taken from affections of the eye; he then went on to say that all really scientific treatment must be based upon accurate diagnosis; the most successful practitioner owed his preeminence rather to the correctness of his aim, and to his exact adaptation of the means to the end, than to the possession of any knowledge of remedies unknown to others. Having then touched upon the nature of the studies which the student would be required to master, the lecturer next proceeded to dilate upon the various elements of which the medical profession was composed. He first alluded to the general practitioner, referring to his valuable and untiring labours, especially amongst the poor—labours which were often so ill requited. He next described the characteristics of the hospital surgeon and physician, whose special function was to make these great institutions subserve the double purpose of ministering to the suffering poor and advancing the cause of medical science and education. The tendency to the subdivision of labour was increasing in this, as well as in every other profession, and was an inevitable result of the progress of science; so that the "specialist," as he was usually termed, now formed an important element in the professional body. The sanitary officer might be regarded as a comparatively modern branch of the profession, whose main function it was to prevent the spread of disease, and the tendency of whose labours was ultimately to promote the medical profession from its present function of combating disease to the higher duty of presiding over and guarding the public health. The lecturer then concluded this portion of his address by an allusion to the medical press—that wide-spread power that makes the thoughts of the few the property of the many, and watches over the interests of the profession, often making its influence felt in the councils of the nation. One of its most signal triumphs had been the success of its recent noble efforts to alleviate the condition of our paupers; efforts which deserved the gratitude not only of the profession, but of the country at large. In conclusion, the lecturer quoted from an address which he had delivered on a similar occasion twenty years ago, a passage in which the progress of the profession was shadowed forth. The anticipations then expressed he thought had been abundantly realised, but though much had been done, much yet remained to do. He hoped that the next twenty years would show even greater and more brilliant progress; and that the students whom he was addressing would, by their zeal and industry in the noble profession in which they were enlisted, largely contribute to that progress.

ST. MARY'S HOSPITAL.

THE Introductory Lecture was delivered by Mr. JAMES LANE.

The lecturer commenced by offering a cordial welcome to new and old students, as well as to those visitors and friends who had honoured the occasion by their presence. After alluding to the present position and satisfactory prospects of the school, he remarked that it was five-and-twenty years ago, just a quarter of a century, since his first induction into the medical profession; and as, during twenty out of these five-and-twenty years, a considerable portion of his time and energies had been employed in teaching, he thought he could not do better, in addressing them, than state the convictions which his experience had led him to form with respect to some of the requirements of medical education, and what appeared to him to be the principal directions in which we should aim at improvement, if we wished to increase the public usefulness of our profession, and, as a necessary consequence of such increased usefulness, to obtain for it increased social influence and consideration. Looking back upon things as they were five-and-twenty years ago, many and great changes had been effected, for which students, as well as the profession at large, had great reason for congratulation. Foremost amongst these changes, he referred especially to the efforts which had been made to ensure a more complete preliminary education. The regulations now compelled the student to show by examination, before he could register at a medical school, that he had received a certain amount of preliminary mental training. He had to show that he knew something of English language, English grammar, history, and so forth; also that he had a certain acquaintance with Latin, although this latter did not appear to be necessarily of a very extended character, to judge from the published requirements of some of the examining corporations. He was sorry to say that as yet a student need not, unless he choose, know anything whatever of Greek, nor of any modern language, if he could substitute for this latter an elementary acquaintance with chemistry, botany, or algebra. The preliminary test, as it stood at present, was, he thought, very far from being all that could be desired; but it was, nevertheless, a great thing to have established the principle that all young men entering the profession should have received at least the *elements* of such a liberal education as would alone fit them to enter upon so arduous, complex, and increasingly difficult a study as that of medicine. As an excuse for dwelling upon subjects which were not, perhaps, strictly of a professional character, he quoted the Report of the Committee on Preliminary Education recently adopted by the General Medical Council, which says: "It is quite apparent that the defects which require to be remedied in the education of students of medicine are to be found less in the subjects of professional study than in provision for that preliminary mental culture which would enable the student to grasp with vigour the various intricate and complicated sciences on which medicine is founded, or with which it claims affinity." Unfortunately, this encouraging preamble is followed by the inconsistent conclusion that it will not be possible in 1869 to insist upon a knowledge of Greek as a preliminary subject, although this date had been fixed upon three years ago for its introduction. It appeared also, he was sorry to see, that one of the leading examining bodies considered "two years' notice insufficient for the introduction of some very small additions in geometry and algebra proposed by the Council;" the Council being either unable or unwilling to enforce its recommendations. He confessed to a feeling of great disappointment that this conclusion should have been arrived at; for he could not conceive it either necessary or desirable, from any point of view, that a young man entering the medical profession should be less cultivated in those branches of knowledge which make up the ordinary education of a gentleman, or should start from a lower intellectual standpoint, than, let us say, the clergyman or the barrister, especially when it was considered how vastly wider was the range of study of which he was expected to make himself master. He could not see any valid reason why the Medical Council should not insist upon an adequate knowledge of both Latin and Greek, as well as of one modern language at least, in addition to our own—why they should not demand a fair proportion of mathematics, *i. e.*, besides the rules of arithmetic, algebra and geometry up to a reasonable point, together with the elements of natural science, at least in the branches of chemistry and natural philosophy. If the Council, actuated by the best intentions, as he believed them to be, were unable to enforce their wishes in such matters as this upon reluctant but influential corporations, it was for public opinion in the profession to strengthen their hands; and he trusted the efforts now being made to obtain a more direct representation of the profession in their medical parliament would before long enable them to express that opinion in a more effectual manner on this and other important subjects.

He thought there must be something wrong somewhere, that the medical profession, eminently attractive as it ought certainly to be from a scientific and intellectual point of view, eminently honourable and beneficent as it undoubtedly was in its every aim and object, should be less popular than other professions with the more highly educated of our youth; and he believed one important reason why it was less tempting to the ambition of a class which, above all others, it was most desirable to secure, might be found in the lower educational standard which had hitherto been thought sufficient. He had dwelt at some length on these matters, because he had a strong conviction that advance in the direction indicated afforded the surest and readiest way to improve the social status of the profession, to increase its public and private influence and usefulness, and to render its voice more powerful for good in all those sanitary and social reforms upon which the well-being of the community was becoming continually more and more dependent.

He then addressed himself more particularly to intending students, advising them how best to employ their time, and insisting especially on the importance of attention to the study of practical anatomy by dissections. He thought this was usually now the student's weakest point, whereas formerly it used to be one of his strongest; and he attributed this to the more limited time allotted to it in the present curriculum—viz., two winter sessions, instead of three, as formerly; and also that he was examined in it at the end of his second winter, after which he might, for any regulation to the contrary, dismiss it from his mind altogether. With this one exception, he thought incalculable advantages had been gained by the system of double examinations, and by the more practical character which the examinations had acquired. The system of clinical study adopted at St. Mary's Hospital, and which had been found to work so advantageously, was explained; and the students were told that there were two things to which it behoved them specially to attend: one was the study of anatomy by dissection, the other the study of disease in the hospital wards. They should endeavour to neglect nothing, if they could avoid it; but, above all, they should not neglect either of these. He trusted new comers would not be alarmed at the amount of work which had been indicated as expected from them. But, if there was plenty of work to be done, they would find that their comrades had not been remiss in devising facilities for amusement. They would find a boat-club, a cricket-club, and a football-club, ready to their hands; not to mention the United Hospitals Athletic Club, recently established. With all these things he confessed to having a most cordial sympathy; but he was not quite sure whether they were not being a little overdone; and, as a friendly critic, he would venture to offer a word of warning against this tendency. "If," he said, "you would keep that ideal of perfection before you, the *mens sana in corpore sano*, you will best approach it by a judicious combination of work and play. Such a combination is, I know, somewhat difficult for young gentlemen of eighteen or twenty. I found it so myself. It requires some resolution and self-denial. But do not let it be, as it too often is, all work at one time, and all play at another. Such a practice does not promote either the sound mind or the sound body. It makes the work wearisome while you are about it; and the play is deprived of more than half its pleasure, if you cannot feel that you have acquired a right to it as the reward of work well done. My advice to you with respect to work is, above all things, to cultivate regular habits. Do not work spasmodically, or try to do too much at once. Resolve to do something every day, and do not allow anything to make you break that resolution. Even if it be but little, it is surprising how much it will amount to at the end of the year. I do not advise you to attempt to do too much at first. Do not, if I may so express myself, make the pace too good to last. The course you have before you is a long one; it will take you over what I will venture to call a very heavy and difficult country, one of which you have as yet no experience. It is not those who start the fastest, but those who can 'stay' the longest, who will be found in front at the end."

"I have heard many eloquent sermons preached on occasions like the present, the text of which has been, that if you would only work hard enough, worldly success and worldly honours would be sure to attend your efforts. I do not hold out to you any such certain hope, though I do believe that success without hard work is becoming day by day more difficult. But unfortunately in every calling one has not far to seek for examples in which time-serving and trickery, quackery and charlatanism, are lavishly rewarded, while honest labour and genuine merit pass comparatively unnoticed. The profession of medicine forms no happy exception in this respect to other human institutions; and human nature has not yet reached, nor do I suppose it ever will reach, that stage of development in which virtue shall always meet with its due reward and vice its appropriate punishment. 'It is not in mortals,' medical or otherwise, 'to command success,' but it does rest with yourselves whether or not you shall deserve it. It is for you to do your duty in the state of life to which you are called; to walk straightforward in the path of rectitude and honour, swerving neither to the right nor to the left, however great the temptation may be. Do this and take the consequences as they come, be they what they may. Live your lives in this spirit, and then should misfortune unhappily be the lot of any of you, you will be the better able to meet it as brave men should. I wish you most cordially every happiness and every success to which you aspire—that you may not only deserve it, but that you may also attain it. Nevertheless, I say to each of you, however that may be, and whether successful or not, '*Fais ton devoir, advienne que pourra.*' And when your race in this world is run, and the time approaches when you must 'go out into the dark,' this will be a better consolation to you than any amount of wealth or worldly honour otherwise obtained."

MIDDLESEX HOSPITAL.

THE Introductory Address was delivered by J. BURDON SANDERSON, M.D., F.R.S.

The lecturer commenced his address by setting forth in general terms the nature and objects of medical training, the chief end of which is not to fit a man to do credit to himself, or even to his profession; but to teach him how to do good to his patients, to save their lives or ease their sufferings. But, in addition to this preparation for practical work, the student must also prepare for his examinations. The relative importance he will assign to these preparations will depend on the estimate he forms of his future responsibilities. If he regard his profession merely as a trade, the fear of being rejected by the examiners will alone restrain him from idleness—the hope that he may succeed in persuading them to sanction his ignorant drugging of his fellow men, will be the highest motive of his exertions. But I take it for granted, that this is not the spirit in which you have entered upon the occupation of your life, and that you have resolved to work at your studies not for the purpose merely of passing your examinations, but in order that in due time you may enter on your duties with the boldness of one thoroughly prepared for his work, one who feels each time he leaves the bedside of a patient, I have done—not *my* best (for that might be a very poor best indeed), but *the* best. I have done all that medical experience teaches was expedient in the case, and have left nothing undone.' I need not labour to prove that this is the only way in which our daily work can be a pleasure. On occasions like the present one is tempted to indulge in commonplaces about the divine art of healing, and the supreme happiness of doing good. True, there is much satisfaction in thinking that our future business will be to go about doing good, but as human nature is constituted, there are but few who are capable of experiencing this highest enjoyment. The art of healing is indeed a God-like pursuit; but how few there are who, even while following a divine art, are animated by divine motives. But there is another, though less elevated pleasure, which is within the reach of every earnest and upright man—that which the man who is firmly resolved to use to the utmost the powers God has given him for the purpose for which they are given, finds in the very efforts which are necessary for carrying out that resolution. Believe me, that whatever other sources of enjoyment you may find in life, there is always a pleasure in fruitful work; but remember, that in order to work fruitfully hereafter you must work laboriously now, and possess yourselves of all the knowledge and skill which your abilities and the short time you have for your studies will admit of. If you do this the work of seeing patients will be a pleasure, not a weariness. If you desire to follow out your profession with satisfaction, the first thing required is to possess yourselves of the necessary knowledge and skill; the second, to acquire habits of concentration. When at the bedside of the patient, you should concentrate all your thoughts on his case, and let no other subject intrude itself upon your mind until you have resolved what ought to be done for his relief. It is the glory of our profession that it contains a large proportion of men who act on this unselfish principle—men who do not *say* that they value their patients' lives more than their own, but whose acts shew that they do so. We are all acquainted with such men; let us follow their example and try to be animated with the same spirit. To this end let us spare no pains, while we are students, to qualify ourselves thoroughly for our work; always remembering that no amount of pains taken hereafter will compensate for neglect of our opportunities now. For you may be assured that it is much more easy to destroy life by ignorant blunders and omissions than to save it by the most judicious efforts of the most skilful practitioner.

In the second part of his address, the lecturer entered into details of the course of studies prescribed for the medical student. He repeated, that medical education consisted not merely in the attainment of the requisite knowledge, but also in the acquirement of skill in the arts of medicine, surgery, and obstetrics; but he would, on the present occasion, confine himself to the former of these divisions. He then proceeded to explain that medical knowledge is of two kinds, one of which is called medical experience, the other medical science. Medical experience, he remarked, is a subject so vast, that to explore it perfectly is far more than the work of a lifetime, but so essential, that it must be more or less completely mastered by every man who aims at thorough fitness for his profession. For, in the business of medical practice, and particularly in the selection of remedies, we are guided by our knowledge not of causes but of cases. We choose those remedies which have been generally found to be the most useful, without, for the time, occupying ourselves with the theory of their action or the essential nature of the disease they are intended to remedy. And herein consists the difference between us and the homœopathists and other classes of dogmatists—not that we deny or disbelieve their principles, or maintain the contrary ones, but that we refuse to adopt into our repertory of remedies all of which we have not received proof of their utility.

Medical science, on the other hand, or, as it is properly called, pathology, differs from experience both in its aim and method. Its aim is to discover the nature and efficient causes of diseases, for which purpose it derives its facts partly from the science of vital physics or physiology; partly from observations made at the bedside or in the *post mortem* theatre. It owes its title to be regarded as a science, not to its consisting of knowledge about disease, for, if this were the case, it would comprehend clinical experience, but exclusively to its method of investigation. It proceeds on the evidently rational assumption that disease can only be understood by comparison with health. In other words, pathology is a science only in so far as it is comprehended by physiology.

As yet, it has accomplished very little for practice. The history of medicine shews that although many attempts have been made to apply new truths to the cure of disease, the result has almost always been failure. The reasons for this are various. One very plain one is, that those who have theorised about treatment have had recourse to science rather to justify some preconceived notion than for the purpose of honestly and humbly seeking her aid. To this misapplication is, no doubt, due the horror which Sydenham, 200 years ago, entertained at what he called the "medicine of philosophy," and which many practical physicians of more recent times have expressed of the intrusion of science into the province of experience. Another and more important reason of failure lies in the insufficient development of pathology itself. It is only a few diseases which we as yet understand in a physiological point of view; few remedies whose mode of action is as yet known. To attempt a scientific treatment of diseases which science does not comprehend, is as unreasonable as it is mischievous. Notwithstanding all this, I do not hesitate to avow the conviction that from the past the future is *not* to be judged. Experience must some time divide the sway with science. When I consider the amazing progress which vital chemistry and physics have made during the last few years, the immense number and energy of those who are working, the importance of the discoveries which have been made, and the directness of their bearing upon pathology, I can scarcely doubt that a new era is now approaching; and, that although we your teachers may not live long enough to see it, you, who are just entering on your career, will both witness and participate in great changes in medical practice.

The lecturer then enumerated some of the directions in which it seemed likely that science would progress towards its application to practice. He adverted, first, to recent investigations as to the origin and maintenance of the temperature of the body, pointing out their relations to those morbid conditions in which the temperature is unnaturally elevated or depressed. He next referred to recent inquiries as to the chemical and physical changes which take place in muscle during the act of contraction; as to the relation between different kinds of muscular acts; as to the character of the rhythmical muscular movements, particularly those of the heart. With reference to all these questions he shewed, that nearly the whole of our knowledge had been acquired or rendered exact during the last ten years, and that the immense accession of knowledge which has been gained in those fields of research is due to the more extended application of those exact methods which are in constant use in the sciences of chemistry and physics, and more particularly to the employment of instruments of observation which are self recording, instead of trusting everything to the quicksightedness and impartiality of the observer. As a last example, mention was made of the purely pathological researches which have lately been made as to the mode of origin of several most fatal diseases, by what has been designated the synthetical method—the method of investigating the origin and nature of those human diseases which can be reproduced in animals by experiment. This method, applicable only to those diseases which spring from material substances or morbid poisons, has already yielded great results, and greater still may be anticipated in the future, particularly by the extension of the field of inquiry through the discovery of new morbific agents.

In conclusion, Dr. Sanderson said, "I trust that none will assume, from my having devoted almost the whole of my address to the scientific method of studying disease, that I am without a just sense of the dignity and value of experience. Assuredly, more honour is due to the empirical method than to the scientific, for up to the present time practical medicine has been advanced by men who have devoted their lives and energies not to studies in the laboratory, but to studies at the bedside, and in the *post mortem* theatre.

"The end I have had in view has been to shew that future progress is to be looked for in another direction, viz.: in the independent development of pathology—not as a branch of medicine but as a section of physics and chemistry—and in the diligent and skilful application to its questions of the same methods as are in use in those sciences. But let it be borne in mind, that pathology will never supersede the absolute necessity of experience. In the future, as in the past, the greatest physicians, surgeons, and obstetricians of their time will be found among those who do what Bacon says the doctors of his day so much neglected—who emulate 'the serious diligence of Hippocrates which used to set down a narrative of the special cases of his patients, and how they proceeded, and how they were judged by recovery or death'."

ST. THOMAS'S HOSPITAL.

THE Introductory Lecture was delivered by Dr. BARNES. He said:

The 1st of October opens the session of that great branch of educational work which is more especially studied in London. Classics and mathematics seek repose, if not solitude. The abstract sisters may best be courted in the cloisters and groves of Oxford and Cambridge; but medicine can only be studied with profit in the great centres of population. London is, and must ever be, the great school of medicine. Where men congregate and jostle in the pursuit of commerce, of art, and of all the manifold objects that demand physical labour and mental strife, there will abound the bodily accidents, the diseases that flesh is heir to, that appeal to science and charity for relief, and offer to science the richest materials for study. London, then, may be said to stand in the same position as the seats of the older Universities in relation to one great branch of human knowledge; and although, in the din and tumult of the mighty metropolis, it may be hard to distinguish the voice of any particular profession, it may not be unprofitable to turn our thoughts for a moment to the position which we hold in the great community, and the influence which the great medical schools exercise upon social life and education. In the great inquiry and revolution in education now going forward, two leading points are conspicuous. The one is the growing desire to cultivate to a greater extent the study of the natural sciences—which may be called, perhaps, the sciences of observation—in preference to the study of pure literature and mathematics. The other point is concerned, not with the subjects of study, but rather with the method of study and with the manner of applying its results in the most practical manner to the public service. The great engine chosen for this purpose is competition. Medicine may fairly claim to have had a large share, if not even to have led the way, in initiating and promoting both these two revolutions. Several professions demand from their disciples a close observation of some one or more of the elements of nature. The statesman, the lawyer, the priest, must take note of man in his moral and social relations; the engineer, who seeks to turn the forces of Nature to the service of man, must study the physical properties of matter; the chemist takes a similar range; the astronomer, the sailor, must learn the laws that govern the mechanism of the universe. But it is not too much to say that the physician must look at Nature in all her elements or constituents, not necessarily deeply in all, but at least with sufficient care to enable him to grasp the chief factors which are concerned in the physical and intellectual development and decay of man. It is this imperative duty which gives the physician his characteristic familiarity with Nature, which gives the tone to his mind, which forms his habits, which lends to his work a never-failing fascination.

Then, again, as to Competition, that potent engine from which so much—I venture to submit, too much—is expected. Competition has long been the accepted test, and therefore the stimulus of knowledge, in the older universities and in the medical schools. A double-first or a wrangler is great and honoured for his day or year; if he unfortunately is weak enough to believe that a fellowship and celibacy are prizes worthy of the highest ambition, the chances are that he sinks into a state of æsthetic indolence; he becomes a pensioner upon the revenues bequeathed by liberality to encourage industry; he enjoys, in monotonous sadness and pride, the reward of work, he having only got possession of the tools, and acquired the capacity for doing useful work. This serious mistake is often made, not alone by double-firsts and wranglers, but by the world. We are apt to confound the tool—the *organon*, as Bacon might call it—with the work which that tool, rightly handled, can produce. We are disposed to credit a man with great powers and great acquisitions simply because he has obtained a high place in a competitive examination. This is often known to be unjust, not alone to those who are beaten in the contest, but also to those who have won. Examinations are framed to test the industry of the candidates in the acquisition of taught knowledge; they do not, at least as a rule, give scope to the display of natural vigour of mind, of original power of reflection and research. The men who commonly excel in competition are those who servilely bend every power they possess to acquire what will pay at examinations; they are often men who have a special faculty for accumulating the stock doctrines of the schools. Too commonly such men attain their highest stage of development at the examination-tables. It would seem as if they had at this point exhausted the powers with which Nature had endowed them; they do nothing more as long as they live; and they are apt to think they have done enough to justify their claim to those rewards that rightly belong to superior merit. The right use of competition is as a corrective, a safeguard against nepotism. Indeed, it is almost the only one. There is so treacherous a tendency to discern superior merit in those whom we personally know, or in whose advancement we feel an interest, that some security is imperatively called for to protect the public interests. As a preliminary safeguard, as a pass-word to challenge those who present themselves at the outer gates, competition is perhaps the best that offers. It has this especial recommendation, that it gives to the unfriended and indigent student the means of breaking through those barriers which wealth and connexion are too apt to rear for the protection and advancement of their clients. It tends also to encourage an honourable self-reliance and an independent spirit. To give exclusive or undue preference to those who stand foremost in competitive examinations is, however, to disregard a great fact in the history of the human mind; it is to fall into that most fatal error of setting up one Procrustean standard for all intellects. Now, who can fail to observe that there are wide differences in the rate of development of different minds? Some men attain their full powers, or at least they seem never to improve upon what they had reached, at a very early age. There is, as Bacon expressed it, "an over-early ripeness in years which fadeth betimes." To use Quintilian's simile, they grow yellow with empty ears before the harvest-time has come." Other minds, growing more slowly, gaining strength with time, and with the habit of self-reliance and independent research, miss their mark in the premature contests of youth, but shine the more brilliantly and the more permanently when a new test of excellence is applied—namely, the capacity of doing honest work that shall profit mankind.

The question as to the best mode of learning suggests the cognate question as to the best method of teaching. Three principal methods are in use, and come to some extent into competition. There is the simple method of giving no formal instruction, but of so ordering the work in the Hospital, the laboratory, and the dissecting-rooms, of providing museums and libraries, as to afford the student the means of study, and leaving him very much to his own devices in turning his opportunities to account. Now, for a young man of vigorous intellect, of resolute industry, and self-reliance, this negative or *laizsez-faire* method of teaching offers very great advantages. It calls forth in the highest degree the habit of original inquiry, and since that knowledge which a man acquires by earnest labour by himself becomes more a part of himself, it gives greater solidity and depth. I am afraid, however, that the men who could be trusted to self-tuition altogether are few, and that even the most capable would lose much valuable time, and expend much energy in unprofitable directions. At the same time, I am firmly convinced that no one will ever be worth much, either as a student or practitioner, who expects to be taught all that he ought to learn, who is ever calling upon Hercules, who does not realise the truth that he must work for himself. The second method is that of oral instruction by a staff of lecturers. This method has been practised in almost all departments of learning from the earliest ages—a sufficient reason, perhaps, in the eyes of our modern reformers, for condemning it. It is argued that a man may as well read what the lecturer has to say as hear him read or say it. Now, I freely admit that if the lecturer writes out and reads his lectures, trusting nothing to spontaneous exposition or to practical demonstration or illustration, he will probably fail to keep alive the attention of his class, and will certainly miss the great object of oral instruction. But this is not what is now understood by lectures. The demonstrative subjects, as chemistry, botany, anatomy, physiology, operative Medicine, Surgery, and Obstetrics, as distinguished from the purely dogmatic parts of medical education, can hardly be taught or learned efficiently without the aid of *viva voce* and manual demonstration. Those who decry lectures are blind to one of the most prolific sources of the increase of knowledge. The lecturer who recognises the full obligation he has undertaken has to prepare the subject matter of every lecture; he has to collect and weigh the latest labours of others, and is thus constantly stimulated to add to the fulness and correctness of the sciences he has to illustrate by original investigations of his own. The earnest lecturer will always be in advance of the latest book; he can hardly stand still; and he who is animated with the fire of fresh discovery, who is glowing with the consciousness of new ideas, cannot fail to quicken his hearers with a sympathetic spark. The lecturer, moreover, has the means of explaining his subject, with a copiousness and variety of illustrations, and of helping individual men over a stumbling-block which books cannot possibly possess. "Books do much," says Mrs. Shelley, but the "living intercourse is the vital heat." There is in extempore demonstration an impulse to the flow of thought—to the sudden suggestion of novel truth; gleams of light are thrown off from the kindled imagination, which, as the electric spark flashed upon a whirling disk of primitive colours, enable one to separate the illusory compound into its elements—enable the speaker to catch instantaneously the solving differences and relations of facts and ideas, which might never come to him under the less fervent magnetism of the closet. Thirdly, there is what is called the tutorial method of instruction. The common sense of mankind has, I think, not unjustly stigmatised this method by the attaching to it the contemptuous words "coaching and grinding." The tutor is to the slow or idle student what Hercules was to the slothful wagoner. He is expected to do all the work—to supply concentrated essences of the teaching of others, so prepared and sweetened as to be at once palatable and easily digested. What is so imbibed is notoriously of little permanent worth.

> "Pater ipse colendi
> Haud facilem esse viam voluit, primusque per artem
> Movit agros, curis acuens mortalia corda."

And the tutor, on his part, scarcely attempts to teach anything original; he teaches at second-hand; and his pupils, learning by rote, are fortunate if they can make their parrot-cries chime in, with passable congruity, with the questions put at the examining table. I am afraid, however, that dependence on this, the least desirable, mode of teaching, is increasing; and I think I discern the cause in the increasing stringency and extent of the subjects of the examination. I believe that the examinations of some of our licensing bodies are now strained to the highest point of tension; and that, by excessive multiplication of subjects and severity of examination, the object sought to be attained is in danger of being defeated. The pressure put upon men at the examinations is so great that they are almost compelled to strain every nerve to acquire that which will carry them through this ordeal. The consequence is that the cultivation of practical manual dexterity and bedside skill is often neglected for the sake of cramming the memory with book-learning. Every means is exhausted to pack as much matter in as small time as the student's capacity will bear, treating his skull as the traveller treats an expansible portmanteau. I am sure we have all seen men of sterling stuff, of excellent judgment, infinitely more worthy of being trusted with the care of life and limb than these overstuffed and ready-to-burst receptacles of scholastic lore, cut a comparatively indifferent figure before the examining boards. In the long run, of course the man of ready skill will assert his superiority, but he has not been started fairly.

Referring to the place in which they were met, he said: The second foundation of St. Thomas's is a part—and no insignificant part—of the history of the illustrious reign of Queen Victoria. Strangers have said that London was poor in public monuments. I think we may point with pride to a concentration of public monuments which, as creations of architectural skill, can hardly be surpassed; and if we look upon them with the eye of the philanthropist, and regard them as the symbols of the virtues that make a nation great, where shall we find their rivals? All human things must decay; but the virtues that dignify human nature will, we trust endure. Let us indulge the hope that the prophesied New Zealander may many centuries hence take his stand upon the unbroken footway of the magnificent bridge which spans the glorious river on whose ebb and flow free trade is borne, and gaze, on the one hand, upon the grand cathedral dedicated to our free religion, upon the splendid pile that marks our free political life; and, on the other hand, upon that noble hospital, which is destined to carry on the sacred work of free charity and free science.

UNIVERSITY COLLEGE.

THE Introductory Lecture was delivered by Professor ERICHSEN.

The lecturer commenced his address by alluding to the pleasure which he felt at the renewal of the ties which bound them together as professor and pupil, and at the formation of fresh acquaintances among those who came together on that occasion for the first time—a pleasure, however, which, he said, was not unmixed with pain. Each new session constituted one of those sharply defined epochs in life which serve as milestones by the way to mark the passage of the fleeting years, and each reminded him of the many men who had met thus year after year, determined to carve out for themselves a happy and a useful future, and of whom so many had failed to reach the goal. To the pupil, however, the commencement of his first session was an occasion of unmixed interest; for it was his initiation into a profession which was to become the occupation of his future life—a profession which, while it was based, like the other liberal profesions, on a desire directly to benefit mankind, was yet to be the means by which they were to attain to social independence. At the same time, they would be spending their lives in an occupation of the truest philanthropy, as the ministers of the purest, the most unsectarian of all religions, the true *religio medici*—to do unto others as they would be done by. Mr. Erichsen then glanced at a question which, he said, is presented to all at the commencement of their student-life: Whether medicine is to be regarded and studied as an art, or a science. Medicine, he considered, would perfectly fall within the definition of a science which Johnson gives—"a certainty grounded on demonstrations, or an art attained by precepts and built on principles." Human anatomy, on which are based the rules according to which the surgeon shapes his operative procedures, is as certain as are the truths of astronomy; and the precepts derived from it may be implicitly relied on. The rules for the operation of lithotomy, and for strangulated hernia, were adduced as instances of this. Similarly, he continued, physiology, which stands in the same relation to the physician as anatomy does to the surgeon, is a matter of equal certainty, and affords an equally sure guidance in the diagnosis of disease. Of this, the detection of the various diseases of the heart by auscultation, and the localisation of disease to particular portions of the nervous system, afford familiar but striking illustrations. And not only are medicine and surgery based upon certain sciences, but they themselves constitute a science of disease scarcely less sure. The uniform course of some diseases, such as the acute specifics; the relation between different diseased conditions; the structure of tumours, for instance,—all are matters of as much certainty as the phenomena of digestion, or the structure of an internal organ, or of the skin itself. Indeed, pathology has in its turn thrown light upon many normal phenomena which physiology alone was quite unable to explain; such as the connexion of the third left frontal convolution of the brain with the power of speech, which has been elucidated by Trousseau, Broca, etc. The scientific nature of medicine is even more manifest when looked at in relation to the laws of health. The conditions producing many diseases, as cholera, surgical erysipelas, pyæmia, etc., are so well known that those diseases may almost be produced at will. In another department of medicine, however, that of the treatment and the progress of disease, we tread upon less certain ground. It is difficult to trace laws, so various and complex are the conditions surrounding them. It is here that individual skill and powers of observation are of such inestimable value. The *art* of medicine, however, need not be wholly empirical. Enough that is certain is known to furnish a sure groundwork for a scientific practice, dependent on principles, and based on precepts. But too often we find ourselves in the region of uncertainty, both as to the course which a disease will take in the future, and the effect of remedies upon it now. And here we find the greatest difference in the opinion of medical men—some rejecting drugs altogether, and trusting to the powers of Nature alone. But the action of medicines and methods of treatment that have been handed down to us should neither be accepted in blind faith, nor rejected with equally unscientific incredulity. The uncertainty which still envelopes the subject must be taken as an indication, not of the unscientific nature of medicine, but of the inherent difficulties of the subject, and of the difficulty of deducing general laws among the mass of facts, in apparent disorder, which surround it. The art and practice of medicine, Mr. Erichsen went on to say, may be regarded as founded on a tripod of science, observation or experience, and individual skill. The value of science as a foundation for practical medicine has received a recent illustration in the antiseptic method of treating wounds, devised by Professor Lister. The second leg of the tripod—observation—comprehends not only the recognition of a phenomenon by its signs, but its investigation, aided by the judgment. The comparison of observations, especially when reduced to the statistical form, is a means for the determination of facts with absolute and mathematical certainty. Much has thus been done in ascertaining the causes of diseases, etc.; and it is in this way, if in any, that the real value of remedies must be ascertained. Individual skill, the third leg of the tripod, is highly prized, and with justice, by both the public and the profession; but, at the same time, too much credit must not be attached to the simple possession of it. The manipulator should not be confounded with the inventor—the man, however skilful, who merely applies rules, with the other who has devised them. From this it will be seen that medicine is neither a pure science nor a simple art, but it partakes of both. Like engineering, navigation, music, it is based on a science, it is practised as an art; but the art can only be safely practised when its foundations are laid deep in the science of biology, which underlies the whole of the structure of the Æsculapian edifice. The student should endeavour to be neither wholly scientific nor wholly practical, but should combine the two somewhat opposite elements of science and of art, of learning and of experience, of thought and of action, ever remembering the advice of Bacon, "They be the best physicians who, being learned, incline to the traditions of experience, or, being empirics, incline to the methods of learning." The speaker then glanced at the different methods of learning by books and lectures, in which are epitomised a knowledge the result of the labours of generations, which it would be impossible for the student to gain afresh for himself. They were to observe a due proportion in their studies, and not to devote themselves too exclusively to any one department. In conclusion, he urged strongly on his hearers the importance of clinical work, and the recording of cases, as an aid to which, he recommended them especially to cultivate the art of shorthand writing, as facilitating note-taking so much; and of drawing, as tending to impress upon and recall to the memory that which is observed.

WESTMINSTER HOSPITAL.

THE Introductory Address was delivered by Mr. FRANCIS MASON. He said:

Gentlemen,—On the great stage of the world, whatever may be our calling, we have many important parts to play; whether we be engaged in the pursuit of science for its own sake, whether we be occupied in professional pursuits, or whether we be employed in the more lucrative work of commerce, we all have assigned to us our little sphere of usefulness; and, just as "small sands make the mountain, moments make the year, and trifles life", so the strength, the industry, nay the welfare, of the whole community, all depend on the manner in which each individual plays his part in the drama of every-day life...............

Such meetings as this are not without their advantages; inasmuch as they present a convenient opportunity of extending the right hand of fellowship to those who are on the threshold of their professional studies, and also of offering increased encouragement to others who, having advanced a certain distance on the road of life, are

> "Stepping from hindrance on to hindrance,
> As a boy crosses, on the stones, the streams";

and are steadily approaching that goal of success which is the honest aspiration and the purest ambition of every hard-working industrious man.

The 1st of October marks an era in the history of every medical man's life. To-day the several schools in this great metropolis meet in friendly rivalry; and we, as a part of a vast educational system, take up the gauntlet, and, with no spirit of petty jealousy, no ill feeling, no bitter envy, but with the fullest confidence in our own prowess, boldly and fearlessly enter the arena prepared, come what may, to fight the battle with courage and determination; so that, when the contest is over, and the star of peace returns, each one may lay his hand on his heart and say, with the warrior of old, "Verily I have laboured in a good cause, and I have endeavoured to do my duty manfully."

The study of medicine commends itself. We are told that there are five great intellectual professions relating to the daily necessities of life: the soldier's to defend it, the pastor's to instruct it, the physician's to keep it in health, the lawyer's to enforce justice in it, and the merchant's to provide for it. Of these daily necessities, by no means the least worthy of our consideration is the duty of the physician, to keep the body in health. That is the part we have to play.

The nature of our education affords the exercise of the highest faculties of the mind.

> "The flower, the tree, the birds, the running brook,
> Are all to us material for thought."

It is impossible to study anatomy, physiology, or chemistry, the subjects on which we build our superstructure, without being deeply impressed with the infinite wisdom of Divine Power. In reading the volume of Nature, we are animated by a passionate yearning for increased research, in exact proportion as our ideas become more developed, our tastes more elevated, and our intellects more refined. Again, if we view the beautiful symmetry and the variety of Nature's forms, the grace and regularity of her designs, our minds must be led to purer notions and happier thoughts. As our reading comprises an endless variety of subjects, it is no matter of surprise that, from time immemorial, medicine should have been studied for its own sake by those possessing the keenest reasoning powers; but when it is cultivated for the sake of aiding others, like the quality of mercy,

> "It is twice blest,
> It blesseth him that gives and him that takes."

In the pursuit of a profession which has for its objects such lofty and beneficent aims—the cure of disease, the relief of suffering, the keeping the body in health—it is no wonder that the good physician should be taken as the highest type of humanity.

Further, if we regard the worldly emolument to be derived from the practice of our profession, we have, even on this score, not much reason to complain. Were we all to attain great wealth, high station, or enormous influence, our natural emulation would be quickly dispelled, and our motives for acquiring superior skill speedily crushed. Such honours are but to the few. Yet the prizes are open to all; and, just as the race is to the swift and the battle to the strong, so he who arms himself with perseverance, self-reliance, and endurance, will be the first to reach the winning post. We may all, however, expect a modest competency; but we acquire a far richer reward, which gold cannot purchase, the heartfelt gratitude and thanks of suffering humanity, as well as the intense satisfaction we ourselves derive from pursuing a vocation whose object is at once sacred, unselfish, and sublime.

Is it nothing that science has discovered an agent which produces complete temporary insensibility, so that the surgeon is enabled to perform the most trivial, as well as the most formidable operation, with absolute painlessness? Is it nothing that we have entrusted to our keeping the power of restoring sight to the blind, and of making the lame walk? Is it nothing that, when a child is suffering from impending suffocation—when, indeed, the last spark of life has well nigh fled—we, by our art, can snatch that child, as it were, from the jaws of death? Is it nothing for us to know that, when a patient is bleeding profusely and dangerously, we have committed to our care the means of instantly stemming that hæmorrhage? Is it nothing that, in our daily practice, our skill, properly applied, often changes the scene from one of utter grief and desolation to one of perfect joy and gladness? Is all this nothing? Then Science is nothing, Art is nothing, and our profession is nothing.

Mr. Mason then gave a brief history of the hospital, and spoke of it as being built under the shadow of "the brave old abbey", and "cradled alike in all its holy influences", which, could it but speak, might tell many a sad tale of sickness, poverty, and distress, as well as testify to the numberless glorious triumphs achieved by our noble art over those accidents and diseases to which all human flesh is heir. In speaking of the medical officers, amongst whom were Cheselden and the celebrated Dr. Mead, he quoted the lines of the poet Pope:

> "Weak tho' I am in limb, and short of sight,
> Far from a lynx, and not a giant quite;
> I'd do what Mead and Cheselden advise
> To keep these limbs and to preserve these eyes";

and said it would be scant justice to the memory of those long since passed away, were he not to say that they were men of the most cultivated intellect, of noble character, of perfect integrity. Such men, he said, are bright examples that we may admire and imitate; for their memory—the best emblem of what is good and true—blossoms in the dust, and lives amongst us for evermore.........................

At first, the student will, no doubt, be somewhat disheartened at the immense amount of work before him. But let him be of good cheer. Nothing is easy but what was at first difficult. By earnest, undivided attention, all the obstacles that impede his progress will fade and vanish as surely as the sun rising in the morning chases away the darkness of night. In attending the lectures, in accordance with the regulations of the Examining Boards, there are two special advantages. In the first place, much valuable information may be acquired; and secondly, that, by regular attention, are inculcated habits of self-discipline, punctuality, method, and exactness—in short, just those qualities essential to success not only in our profession, but in every other walk of life.

The lecturer then spoke of note-taking as being most valuable, in the form of short memoranda. He said: There is nothing that conduces more to accuracy of observation and clearness of perception than this plan of committing our ideas to writing, for

> "Sounds that address the ear are lost and die
> In one short hour; while that which strikes the eye
> Lives long upon the mind."

The instruction, however, that we give here (continued the lecturer) is to be regarded as a means to an end; namely, that of qualifying the pupil to practise his profession. We do not pretend to teach him all he is required to know; but we pride ourselves in teaching him how to learn for himself. We put before him the scattered threads of knowledge, and leave him to weave them into a new and substantial fabric. In hospital practice, the student will find that all his senses will, at various times, be called into action—the sense of touch—the sense of sight, that great gateway of the mind—the sense of hearing—the sense of smell—and sometimes the sense of taste. Whilst he should never neglect to visit the wards, let him not think lightly of the out-patient department. Let him "be wise in small things, and ponder well the greatness of the little." He must cultivate the power of sustained thought; and, if he wish to overcome any difficulties, he must apply his mind intensely to the subject, remembering the old rhyme:

"Tender handed touch the nettle,
It will sting you for your pains;
Grasp it like a man of mettle,
And it soft as silk remains."

Another important element in the acquisition of knowledge was self-examination—taking stock, as it were, of what we know. As medical men, our motto should be, "Semper paratus"; for, in our profession more than in any other, we have not only to be men of learning, but men of prompt action. We have to think when others are paralysed; we have to be decided when others are wavering...............

And oh! how eloquent are our looks. A mother nursing her sick child will anxiously watch our every movement, our every expression; and one whisper, one hint, or even one gesture, will often suffice to snap the last and slenderest thread of hope.

Mr. Mason then dwelt on the importance of cultivating those qualities which are considered essential to the bearing of a gentleman. Without stooping to base motives, or cringing to abject servility, we are called upon, he said, to exercise, and rightly understand, what is aptly termed the "art of pleasing". One patient, for example, will require our constant attendance, which we may consider unnecessary; whilst another will be greatly displeased if, unsolicited, we pay him a second visit. It is this discrimination, the keen perception of individual character, the knowledge of the world, tact, judgment, common-sense—call it what we will—the dealing with each case as each case requires—that we are forced to observe.

Mr. Mason then urged upon his hearers the importance of being self-reliant, reminding them that, in practice, it is easier to make our patients our friends than to make our friends our patients. If we cannot create opportunities, we can take advantage of them when they are presented to us. If there be, as we are led to believe, a tide in the affairs of man, which, if taken at the flood, is to lead us on to fortune, it is manifestly our duty to watch for that flood. We must, however, wait patiently; and, as De Maistre says, "To know how to wait is the great secret of success." Always working with a contented mind, and having at all times a due consideration for the feelings of others, we must cultivate habits of self-discipline, self-control, and self-respect; all these, combined with unflinching industry, untiring perseverance, and strict integrity, constitute the rungs that form the ladder of prosperity.

Mr. Mason said, in conclusion: I earnestly ask you, on behalf of my colleagues, as well as in my own name, to play your part, as we hope to play ours—zealously, cheerfully, and faithfully; so that, whilst we endeavour to fulfil the royal law of Scripture, which directs us to do unto others as we would have them do unto us, we may always rejoice in the boundless resources our noble profession affords of "looking through Nature up to Nature's God."

ASSOCIATION INTELLIGENCE.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The next meeting of the above Branch will be held at the Council Room of the Midland Institute, on Thursday, October 8th. The chair to be taken at 3 o'clock precisely.

T. H. Bartleet, *Honorary Secretary.*

CUMBERLAND AND WESTMORLAND BRANCH.

The autumnal meeting of the above Branch will be held at the Board Room of the Infirmary, Howgill Street, Whitehaven, on Wednesday, October 14th, at 1 P.M. The Infirmary will be visited at 3.30 P.M.; and dinner ordered at the Black Lion for 4 P.M.

Gentlemen intending to be present at the dinner, or to read cases or papers, are requested to give notice to the Honorary Secretary,

Carlisle, Sept. 19th, 1868. Henry Barnes, M.D.

SHROPSHIRE SCIENTIFIC BRANCH.

The annual meeting of the above Branch will be held in the Natural History and Antiquarian Society's Museum, Shrewsbury, on Wednesday, October 28th, at 2.30 P.M.—President for 1867-8, William Newman, M.D., Stamford; President-elect for 1868-9, Samuel Wood, F.S.A., Shrewsbury.

Gentlemen intending to read papers or cases, are requested to communicate with the Honorary Secretary.

The dinner will take place at 5 o'clock. Members can introduce friends.

Samuel Wood, F.R.C.S., *Hon. Sec.*

UNIVERSITY INTELLIGENCE.

OXFORD.

Jesus College.—There will be an election to one Physical Science Scholarship at this College on Tuesday, October 20th. This scholarship is open, of the annual value of £80, and tenable to the close of the twentieth term from the scholar's matriculation. Candidates must not, on the day of election, be full twenty-four years old. Papers will be set in Chemistry, Physics, and Physiology; but answers will be expected from each candidate in one subject only. The candidates will be also examined in the ordinary classical matriculation subjects. Candidates are requested to call upon the Principal on the morning of Thursday, October 15th; and to bring with them proofs of their eligibility, certificates of their baptism, and testimonials of their past good conduct. The examination will begin the same day. For further information, apply to the Principal, or to Mr. Chapman, Jesus College.

Unattached Students.—An examination of candidates for admission to the University of Oxford as unattached students will be held at Oxford, in the schools, by the Delegates for licensing lodging-houses, on Thursday, the 15th instant, at 10 A.M. All candidates who desire to keep the ensuing Michaelmas Term must then be present. The subjects of the examination will be: 1. Three Books of Homer, *or* one Greek Play; 2. Three Books of Virgil's *Æneid*, *or* three Books of the *Odes* of Horace; 3. Translation from English into Latin; 4. The Elements of Greek and Latin Grammar; 5. Arithmetic, including Fractions, Decimals, and Proportion; 6. Euclid, Books I and II; *or* Algebra, the first four rules, Fractions, and Simple Equations. Each candidate is required to forward to the Delegates for licensing lodging-houses (under cover to the Rev. G. W. Kitchin, M.A., Christ Church, or to the Rev. G. S. Ward, M.A., Magdalen Hall), at least one week before the day appointed for the examination, (1) a testimony of good conduct and character, (2) a certificate that he has the consent of his parents or guardians to his living in lodgings.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from 23rd to 29th Sept. (both inclusive).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.549
Highest reading of do. (corrected & reduced), on 26th, 10 A.M.	29.744
Lowest ditto Ditto on 29th, 10 A.M.	29.307
Range of pressure during the week	00.437
Mean temperature of air in shade	59.3
Mean temperature of evaporation	56.6
Mean temperature of dew-point	54.2
Mean degree of humidity (saturation=100)	84.
Mean maximum temperature of the week	64.4
Mean minimum temperature of the week	48.7
Calculated mean temperature of the week	56.5
Maximum temperature of air in shade, on 26th	67.9
Minimum temperature (protected), on 24th	44.5
Minimum temperature (exposed on grass), on 25th	39.3
Range of temperature during week	28.6
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 24th	113.0
Lowest ditto ditto on 25th	74.7
Mean amount of clouds (0—10)	5.9
Total rainfall (which fell on 24th, 25th, 26th, 27th, 28th, 29th)	1.17 inch
Mean amount of ozone (0—10)	3.4

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	0	1	1	0	4	1	0	0	3.5
2 P.M.	0	0	0	1	0	4	1	1	0	4.1
10 P.M.	0	0	0	0	0	5	0	0	2	3.5

Mean force of wind (0—12) 3.7

The weather of the week has been unsettled and changeable. Atmospheric pressure, which has decreased, has been very unsteady, though its range has been somewhat less than last week. Temperature also has diminished. Winds have been almost wholly south-westerly, and were of moderate force until the 26th. Since then, there have been strong squalls, accompanied by heavy showers of rain; the sky during the intervals clearing wholly or in part, with frequent gleams of bright sunshine. The general health continues good.

Kew, September 30th, 1868.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, Sept. 24th, 1868.

Afflick, James, Stretton, Lancashire
Duke, Benjamin, Guy's Hospital
Nunn, George Richard, Lyndhurst
Peacock, Stanley, Frederick Street, King's Cross
Pottle, Edgar George, Bath Street, City Road
Rix, Charles James, Oxford Street, Manchester
Thompson, James Ashburton, Delamere Street, W.

At the same Court, the following passed the first examination.

Patchett, William Ashton, Manchester Infirmary

MEDICAL VACANCIES.

THE following vacancies are declared:—

BANDON UNION, Co. Cork—Medical Officer for the Templemartin Dispensary District.
BIRMINGHAM GENERAL DISPENSARY—Two Resident Surgeons.
CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square—Physician.
CLIFDEN UNION, co. Galway—Medical Officer for the Islands of InnisCoffin and Shark.
CLUNY HILL HYDROPATHIC ESTABLISHMENT, Forres—Physician.
FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, Holborn—Surgeon.
HAMBLEDON UNION, Surrey—Medical Officer for the Workhouse; Medical Officer for the Chiddingfold District.
HORNCASTLE UNION—Medical Officer for the Tetford District.
KILBURN, MAIDA VALE, and ST. JOHN'S WOOD GENERAL DISPENSARY—Resident Medical Officer.
LINCOLN GENERAL DISPENSARY—Resident House-Surgeon.
MIDDLESEX HOSPITAL—House-Surgeon.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician.
ROYAL SOUTH LONDON DISPENSARY, St. George's Circus—Two District Surgeons for Blackfriars and Southwark.
ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street—Surgeon.
STRANORLAR UNION, co. Donegal—Medical Officer for the Cloghan Dispensary District.
SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.
SWINFORD UNION, co. Mayo—Medical Officer for the Swinford Dispensary District and the Workhouse.
TRINITY COLLEGE, Dublin—Professor of Botany.
WICK, Caithness-shire—Parochial Medical Officer; Surgeon to the Gaol.

MEDICAL APPOINTMENT.

*SHUTTLEWORTH, G. E., B.A.Lond., M.R.C.S.Eng., Medical Associate of King's College, London, elected Assistant Medical Officer to the Asylum for Idiots, Earlswood.

BIRTH.

WINSLOW.—On September 25th, at Hammersmith, the wife of Lyttelton Stewart Winslow, LL.B.Cantab. (youngest son of *Forbes Winslow, M.D.), of a son.

MARRIAGE.

At Colingsburgh, Fife, on September 29th, by the Rev. John Millar, *John THOMSON, L.R.C.P. and L.R.C.S.Edin., Kingswinford, Staffordshire, to Catherine, eldest daughter of William BRAID, Esq. No cards.

DEATH.

*BOTTOMLEY, George, Esq., Surgeon, of Croydon, suddenly, on September 27th.

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DISTRIBUTION OF PRIZES AT THE MIDDLESEX HOSPITAL.—At the close of Dr. Sanderson's Introductory Address, the following prizes were presented by the chairman of the Weekly Board to the students who had successfully competed for them during the past year:—First Clinical Prize (Governor's Prize, value 20 guineas), Mr. James Charlesworth. Second Clinical Prize, Mr. Henry Bale. Third Clinical Prize, Mr. William Lee. First Prize in Medicine, Mr. James Charlesworth. First Prize in Surgery, Mr. James Charlesworth. Second Prize in Medicine and Surgery, Mr. Henry Bale. Prize in Physiology, Mr. Robert Lucas. Prize in Anatomy, Mr. Robert Lucas. Prize in Pathology, Mr. Robert Lucas. Prize in Chemistry, Mr. J. James. Prize in Materia Medica, Mr. W. Matthias Mott. Prize in Midwifery, Mr. Robert Lucas. Prize in Medical Jurisprudence, Mr. Robert Lucas. Prize in Practical Chemistry, Mr. H. C. Waldron. Prize in Botany, Mr. Charles Cobbold. Prizes in Comparative Anatomy, Mr. Charles Cobbold and Mr. J. James (equal). Prize for regularity of attendance at periodical examinations, Mr. Arthur Ayling. Students' Medical Society's Prize, Mr. James Charlesworth.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London. 7.30 P.M., Council Meeting. 8 P.M., Dr. Tilt, "On Irritable Uterus"; Dr. Meadows, "On Flexions of the Uterus"; and other papers by Dr. Martyn, Dr. Cory, and Mr. Houghton.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Derby and Chesterfield Reporter, Sept. 18th; The Brighton Times, Sept. 26th; The Glasgow Herald, Sept. 25th; The Wiltshire County Mirror, Sept. 30th; The Belfast News Letter, Sept. 26th; The Liberal Review, Sept. 26th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. R. Pringle, Porto Bello; Dr. B. W. Richardson, London; Dr. H. W. Rumsey, Cheltenham; A Member, Liverpool; Mr. B. Blower, Liverpool; Mr. T. J. Aubin, Garstang; Mr. G. Moore, Moreton-in-Marsh; Mr. R. Potts, Cambridge; The Lecturers of the Charing Cross Hospital; Mr. W. P. Hoare, Dartford; Mr. T. W. Roberts, Liverpool; Mr. Holden, Liverpool; Dr. A. T. H. Waters, Liverpool; Messrs. Adams and Francis, London; The Secretary of University College; The Medical Officers and Lecturers of St. Mary's Hospital Medical School; Dr. Kelburne King, Hull; The Medical Officers and Lecturers of the Westminster Hospital Medical School; The Honorary Secretary of the Obstetrical Society; Mr. R. Dunn, London; Dr. Wardell, Belmont, Tunbridge Wells; Dr. Brabazon, Bath; Dr. Kidd, Dublin; Mr. Jones, Rhyl; Messrs. Corry and Co., London; and Dr. H. H. Collins, Wolverhampton.

LETTERS, ETC. (with enclosures) from:—

Dr. Hermann Beigel, London; Mr. A. Fleischmann, Cheltenham; Dr. J. Tucker, Sligo; Mr. J. J. Ashforth, Manchester; Mr. Erichsen, London; Mr. T. Smith, London; Dr. Robertson, Cuckfield; Mr. A. H. Dolman, Derby; Mrs. Baines, London; Dr. J. Burdon Sanderson, London; Dr. Ogle, London; Dr. Pollock, London; Dr. G. F. Elliott, Hull; Mr. Wells, Broadstone, Dartmouth; Dr. Shinkwin, Cork; Dr. J. Althaus, London; Mr. Francis Mason, London; Mr. James Lane, London; Mr. Jolliffe Tufnel, Dublin; Mr. Critchett, London; Dr. Guy, London; Dr. Andrew Fyfe, London; Dr. Gervis, London; Mr. F. Le Gros Clark, London; Dr. Woakes, Luton; Dr. Coles, Croydon; Mr. E. Chapman, Oxford; Dr. P. H. Watson, Edinburgh; Mr. J. Z. Laurence, London; Mr. J. N. Smart, Bedminster; Mr. J. H. Hill, Manchester; Mr. S. Wood, Shrewsbury; Dr. E. Morris, Spalding; Dr. Moxon, London; Dr. F. J. Brown, Rochester; Mr. B. Baker, Brentwood; Dr. Drysdale, London; Mr. T. S. Bourne, Kenilworth; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; The Registrar-General of England; The Registrar-General of Ireland; Dr. John Murray, London; Dr. Treutler, Kew; Mr. Cooper, Brighton; Mr. T. H. Bartleet, Birmingham; Mr. Moore, London; Mr. W. T. Greene, Dublin; Mr. J. Rouse, London; Dr. T. Headlam Greenhow, London; Mr. G. E. Shuttleworth, London; Dr. Bristowe, London; and Dr. Forbes Winslow, London.

CLINICAL REMARKS
ON
SOME FORMS OF SKIN-DISEASE:
MOLLUSCUM, RUPIA SIMPLEX, ACUTE ECZEMA, OR ECZEMA RUBRUM.

By WILLIAM R. BASHAM, M.D.,
Physician to the Westminster Hospital.

WITH the desirable object of placing before the students for clinical observation cases of skin-disease, six beds, three male and three female, under the care of Dr. Basham, have been set apart in the Westminster Hospital for the special study of these disorders. At his clinical lectures on Thursday, Dr. Basham directed the attention of the students to three cases still under treatment—one of molluscum, the other of rupia simplex, the third of eczema. Molluscum, he observed, was an affection of the skin not of very frequent occurrence, and from a popular belief of its contagious character, designated in the books as molluscum contagiosum. It is not, however, contagious, although it often happens that more than one individual in a family may exhibit the disorder. It appears, however, to arise more from the special character of the constitution, or structure of the sebaceous follicles, than from any agent capable of propagating it. The case under notice is that of a little girl, of nine years of age, in every respect in a good state of health, on the inferior part of the abdomen of whom, as well as in the inside of the thighs, there appear a number of what at first sight look like simple warts—warty excrescences—of the natural colour of the skin. On more careful examination, they are round smooth nodules, slightly elastic to the touch, but soft and rolling under the finger from having a short peduncle; several exist singly, about the size of a large pea; a few are grouped together. On making a puncture of one, slight pressure causes a cheesy or creamy sebaceous matter to exude. If the outer cuticular surface is carefully incised and pressure made, the sebaceous matter can be turned out enclosed in a cyst, and the little tumour can be thus easily enucleated. These conditions reveal, therefore, the fact that molluscum is simply a disease of the sebaceous glands, and in no degree contagious. The general health does not suffer.

The treatment to be adopted in these cases is purely local. The tumours may be either enucleated in the manner just described, or a slight puncture made in the centre, the sebaceous matter squeezed out, and then touched with a stick of nitrate of silver, brought to a fine point. The caustic must not be too freely applied, as an unnecessary degree of irritation is excited, and more pain caused from the inflammation set up than is requisite for the eradication of the tumour.

The next case, to which the attention of the students was directed, was a case of rupia simplex. It was in the person of a young woman, twenty-two or twenty-three years of age, having a worn and anxious expression of countenance, and whose recent history was that of poverty, want, and mental distress. Rupia, Dr. Basham observed, is a disease essentially of the ill-nourished and half-starved. Its characteristics in this case were well marked. Over the trunk of the body, but in less number than on the extremities, particularly the lower, were dispersed a number of dirty-looking patches or scabs, varying in size from a silver threepence to that of half-a-crown. The base of the scab or crust was surrounded by a margin of inflammatory redness. The crusts had a laminated appearance, and have been likened to the dirty ash-grey of an oyster-shell. When they fall off, the cuticle remains of a dusky red colour for some time, and in bad cases often ulcerating. These scabs or crusts originate in a circumscribed spot of redness, slightly elevated, and painful to the touch. In the centre of this inflamed spot, at first was seen a minute vesicle, which rapidly enlarged by an irregular extension of its margin. Its colour at first, as this enlargement takes place, was pearly or milky, but it rapidly became purulent and concreted, and formed, by successive exudations, the laminæ of which the crust was composed. From the attrition of the clothes and dirt, this crust acquires the peculiar aspect which is the characteristic of this eruption. In one variety, the rupia prominens, the crusts acquire a cone-like shape; but excepting that the disease does not differ from the common form, rupia simplex, both are the offspring of indigence, intemperance, and dirt. As the causes which develope rupia are long and slow in operation, so it must be understood the means and remedies for its cure are equally dilatory, but not the less certain and effective.

The remedies in all such cases may be said to be embraced in the term nutrition, and all that aids nutrition, to which may be added cleanliness and personal comfort. A patient from the indigent-class, suffering from this disorder, admitted into one of our hospitals, more speedily recovers and is restored to health, than can possibly be expected while treated as an out-patient, and wanting the very essentials for recovery—wholesome food and personal cleanliness. There is no specific medicine for the treatment of rupia. Whatever remedies may be given should be those which minister to the nerve-force. It is thus found that a wholesome meat diet, porter or wine, as the case may need, accompanying it, is best aided by some of the preparations of cinchona and a mineral acid. The case under consideration has had the advantage of a liberal diet, with the liquor cinchonæ and nitric acid for nearly a fortnight. If you compare the aspect of the patient to-day with what was noted on admission; and you may remark also that within these few days only a few spots of eruption have made their appearance, and that as the scabs leave the old spots there is now no ulcerative tendency, you receive ample proof how much the disease has its origin in want and defective nutrition, and how little beyond the supply of this is needed for the cure of the disorder.

Acute Inflammatory Eczema.—The next case is that of a man aged 42, a baker, in King William Ward, affording a very good example and study of the characteristics of acute or inflammatory eczema. It is named in the books eczema rubrum; but the term acute or inflammatory bespeaks its character best, to distinguish it from the chronic or local varieties. About a fortnight before admission on May 2nd, he felt behind the ears a burning tingling sensation, followed by an oozing of moisture, which increased the irritation considerably. In a day or two, the flexures of some of the joints, the armpits, and the elbow, became the seat of a diffused inflammatory redness, with a painful sense of burning; a number of small watery pimples pouring out a fluid which only increased the local irritation. The scalp became involved; and other patches, more diffused, appeared on the trunk, both before and behind, as well as on the thighs and in the hams, even down to the ankles. On admission, this was the extent and range of the disorder. The scalp was covered with a moist, half-dried exudation, matting the hairs together, and completely concealing their roots; the spaces behind the ears were red and moist, the skin looking highly inflamed; and minute vesicles could be seen in the more recent inflamed margin. The back of the neck was free, and the eruption did not appear so marked on the back and loins as on the chest and abdomen. The pubis, inguinal spaces, inside and outside the thighs, seemed to display the eruption in its most angry form. Here the cuticle was deeply red, moist with oozing fluid, and distressing the patient by the continuous sense of tingling, itching, and burning. The eruption on the chest and upper part of the abdomen, as well as on the outer part of the thighs, was covered with the half-dried serous exudation, and looked like honey in colour and consistence. The linen, whether of the bed or person of the patient, was sticky and stiff, and discoloured with the moisture oozing from the inflamed skin. There was not much constitutional disturbance, not more than the extremely irritable surface might account for. The tongue was pale and slightly furred; the pulse was not accelerated; and there was no obvious error in any of the excretions. The urine perhaps contained an excess of uric acid and urates.

This form of skin-affection is thus shown to be an inflammation in irregular spaces of the derma, with the development of numerous minute vesicles, with excoriations and irritation of the surface, the vesicular fluid concreting into crusts, and, as the inflammation subsides, the skin desquamating in bran-like scales till the healthy surface is completely restored. This *branny* condition of the cuticle is particularly seen in the scalp in this case, and continues long after the surface of the trunk and extremities has returned to a clean and healthy state.

The causes of acute inflammatory eczema in many cases may be traced to irritation of the skin by some special irritant. Consequently, it is seen often in those who work in an atmosphere loaded with dust, or whose clothes may become saturated or charged with the fine particles of the material with which they deal. Bakers, bricklayers, grocers, and millers are thus frequently the subject of these eczematous eruptions, either in a local or in a more general form. There must, however, be some constitutional predisposition to cutaneous disorder preexistent, or it would be more frequently observed among the workpeople in the above trades.

The acute form of eczema, with proper management, especially such as is at command in a metropolitan hospital, is not of an obstinate character. Unlike the chronic form, its duration rarely exceeds from six to eight weeks.

The patient under observation is a baker; therefore the origin of the disorder may possibly be traced to the irritation of flour-particles with which his clothes were probably saturated. But some constitutional cause, as has been already observed, coexists. It is doubtless difficult to find this constitutional cause. But there is one error which I have remarked constant in similar cases; it is the excess of uric acid present in the urine. I will not venture to speculate or theorise on this fact; I may allude to it hereafter. But you may be reminded that the squamous or scaly eruptions of the skin are always accompanied by this excess of uric acid. Psoriasis and lepra are frequently associated with lithiasis or gravel.

The case under observation illustrates the plan of treatment most suitable for these cases of acute eczema. Cooling laxatives, effervescing salines, a simple non-stimulating diet, rest for a few days in bed, and the application of some soothing substance to allay the distressing irritation of the inflamed and excoriated skin, are the remedies needed. There are no specifics for this form of eczema. Arsenic is useless; it is useful in the chronic form. Alkalies are useful; but they should be given in a palatable form; and the carbonate of potash as an effervescent, with citric acid, may be given with advantage. The oxide of zinc and glycerine, slightly diluted and made of the consistency of cream, and painted over the inflamed skin with a feather or brush, conveys speedy relief. A warm or tepid, not a hot bath, should be given on alternate days. To remove the concreted mass from the scalp, linseed-meal poultices, made with a small addition of liquor potassæ to the water, and kept in contact with the scalp night and day, changing the poultice every six or eight hours, effects this purpose; or water-dressing, with a sufficient quantity of liquor potassæ to the water to help its solvent action on the crust, may be substituted.

During the progress of the convalescence, tonics may be desirable. This patient was ordered quinine and iron. He took Donovan's solution for a few days; but he needed the tonic more, and the arsenic was discontinued. About the seventh week of his stay in the hospital, every part of the body the seat of the severe eruption, except the scalp, had returned to perfectly clean and healthy appearance; so much so, that those who had seen the man on admission might with difficulty imagine that such fair clean skin could have been so recently disfigured. The scalp, however, was an exception to this complete restoration: here, even to the margin of the hair, was a branny state of the cuticle, a whitish scurfy peeling of the epidermis, implicating the root of the hairs, and requiring stimulating applications for its removal. Lotions of the nitrate of silver, of ten grains to the ounce, were found sufficient; so that before he left the hospital, the tenth week from admission, this portion of the skin also presented the same favourable appearance as that of the trunk and extremities.

ON THE EXTRACTION OF FOREIGN BODIES FROM THE FEMALE BLADDER.

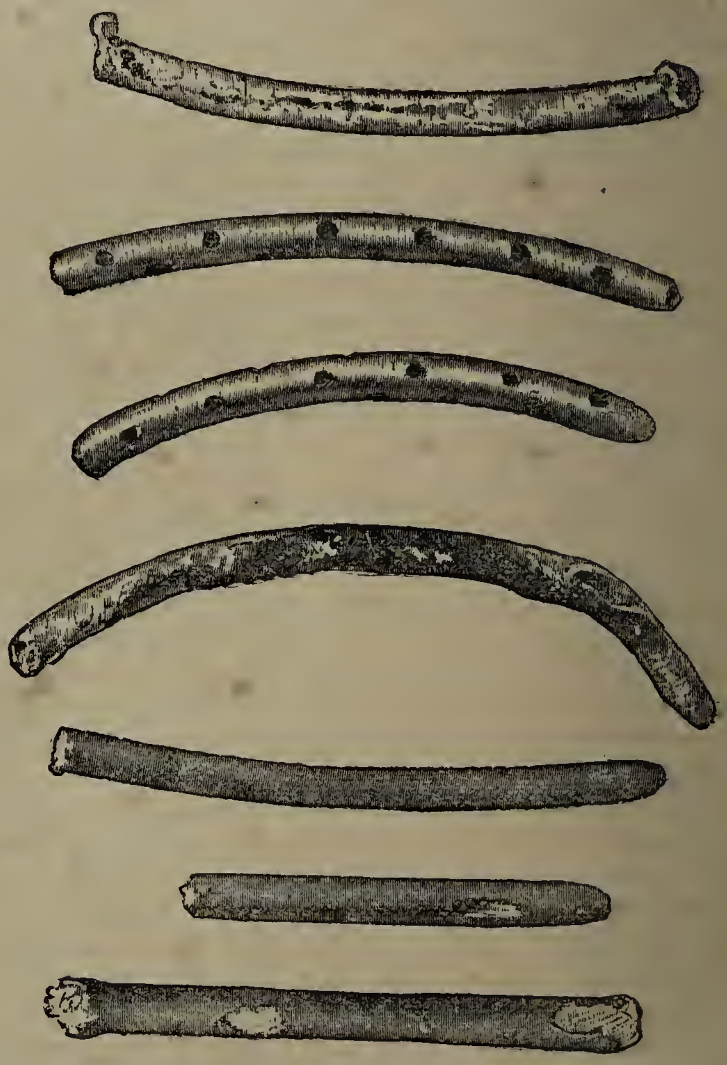
By PATRICK HERON WATSON, M.D., F.R.S.E., F.R.C.S.E.,
Lecturer on Surgery; Surgeon to the Royal Infirmary and Chalmers Hospital, Edinburgh.

If we exclude urinary calculi formed in the kidneys, ureters, or the viscus itself, from the category of foreign bodies met with in the female bladder, substances which are introduced from without form the only examples of extraneous materials which require our consideration in determining the means best suited for effecting their extraction.

Such foreign bodies may obtain access to the bladder through wounds which open into the viscus, through the spontaneous evacuation by the bladder of an abscess, or, lastly, through the urethra. The two former are necessarily quite exceptional tracks; the last named is the usual route. Practically, therefore, the foreign bodies which are met with in the cavity of the female bladder must be of a calibre which admits of their passing along this canal. Conversely, also, any body larger than the normal canal is not likely to be met with within the bladder, if it has been recently introduced *ab extra*. In some instances, the channel of the urethra may be greatly enlarged, as I had occasion to observe some years ago in a young woman aged 17, who had never menstruated, and in whom the condition of imperforate vagina existed. In her case, the urethra was so patent that the forefinger could easily be introduced into the bladder; and, with a little force, two fingers might readily enough have been inserted along the canal. The orifice of the urethra was the most patent portion of the canal, and resembled a funnel in appearance. In such a case as this, a commensurately large foreign body would admit of easy insertion into the bladder, and of being lodged there; but, just as in the natural condition of parts, the foreign body could readily be removed along the route by which it had been introduced, so here a body of much larger bulk would admit of extraction with equal facility through the urethra, without necessitating dilatation, incision of the canal, or diminution of the bulk of the foreign substance.

I have recently met with three cases of foreign bodies lodged in the female bladder; and, as they serve to illustrate the subject under consideration, I shall in the first instance narrate them.

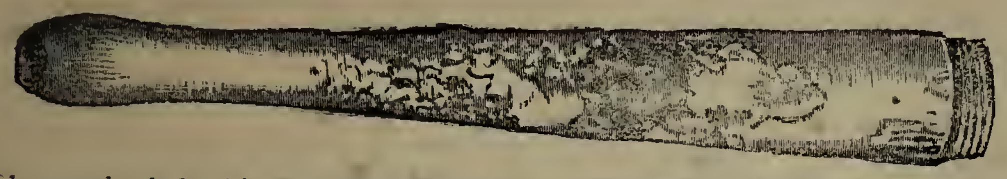
CASE I.—J. D., aged 23, was brought to me at the Royal Infirmary on November 15th, 1865, by a gentleman attending one of the dispensaries in this city, on account of retention of urine. The patient, a nervous, excitable young female, was accompanied by her mother, from whom I ascertained that she had not passed water for upwards of two days. On examination, the fully distended bladder was easily recognised, rising prominently above the pubis as high as the umbilicus. The introduction of the catheter was resorted to at once, and readily enough effected, in spite of the retraction of the orifice of the urethra. As the bladder did not regain its tone for some time after this extreme distension, she required the introduction of the catheter twice a day; but, as she ceased to return to the hospital after a week, it was presumed that she had regained control over her bladder. At the end of a month, however, she returned, stating that the distance from the hospital at which she resided had prevented her from coming back, but that she had obtained the services of a nurse to help her, and had acquired the art of introducing the catheter for herself, with the result, a few days before her visit, of breaking off a portion of the instrument (a gum-elastic one) in the bladder, where it was now lodged.



Fragments of gum elastic and metallic female catheters, extracted at different times from the bladder of Case I.

On examining the bladder (in the manner I shall describe immediately), I at once detected the piece of catheter, and extracted it. After cautioning her against the repetition of such carelessness as might risk the recurrence of such an accident, she left the Infirmary. She, however, returned over and over again, at periods varying from a week to a month, with a foreign body, consisting of a piece of catheter, lodged in the bladder, which I similarly removed. On the last of these occasions, her mother, who accompanied her, explained that her daughter was given to habits of masturbation, and begged that something might be done to put a stop to her tricks. Various procedures, moral and remedial, were tried, with the view of soothing her excitable nervous system; but, as this was without effect, with the sanction of her mother I removed her clitoris, in the manner recommended by Mr. Baker Brown. This was followed by a cessation of any retention of urine or introduction of pieces of catheter into the bladder, till last year, when, in the beginning of the winter session, she came to town, apparently as ill as ever, with a piece of catheter in the bladder, which I removed as before.

CASE II.—Mrs. H., aged 45, was admitted to the Royal Infirmary in the autumn of 1867, on account of a foreign body lodged in the bladder, which had resisted the efforts of two medical men to extract from the viscus. She stated that, six weeks before, as she was suffering from retention of urine, she obtained the services of a nurse. This female attempted to relieve her by means of an ivory clyster-pipe, and did so successfully; but the pipe, slipping from her hold, disappeared, and found its way into the bladder. Having placed the patient under the influence of chloroform, I dislodged the clyster-pipe from the impacted position it occupied in the bladder, and effected its extraction.



Clyster-pipe lodged in the bladder of Case II. Encrustation of phosphates on surface. Both extremities impacted in the coats of the bladder by ulceration.

Case III.—A child, aged 5 years, was sent to my charge, in the Royal Infirmary, from Innerleithen, by Dr. J. Andrew. Her father, who accompanied her, stated that, two days previously, she began to complain of urinary irritation, and that her mother observed her urine was tinged with blood. Dr. Andrew informed me that, on sounding her bladder by means of a bent probe, he detected a foreign body; and that the child, according to her mother's account, admitted she had put something up her urethra, which she described as a pin, but which her mother believed to be a hair-pin. On placing the child under the influence of chloroform, and introducing the forceps, a foreign body was at once detected. It lay obliquely across the neck of the bladder from right to left and from above downwards. Using the forceps as described below, the length of the body was determined to be more than two inches; and, from its other characters when grasped by the forceps, taking it for granted that it was a hair-pin, and that its rounded or blunt end must have been first inserted, I carried the forceps downwards to the left or lower extremity, and, after a little manipulation, contrived to bring the two points of the hair-pin into the axis of the forceps and urethra, and to effect its extraction. The hair-pin was of small size, measuring exactly two inches and a quarter in length. Immediate relief was afforded, and the child returned home in the course of the ensuing day.

Hair-pin (actual size) extracted from the bladder of a little girl, aged 5 years.

These cases illustrate the circumstances, accidental and intentional, under which foreign bodies may be lodged in the bladder; for while, in the first case, the portions of catheter were undoubtedly inserted to satisfy a morbid irritability of the genito-urinary system, and not left behind in the bladder by the accidental fracture of the instrument after it had been introduced, there can be no reasonable doubt, in the second case, that the facts were as narrated by the patient, and the lodgment of the pipe due simply to accident. The third case was one in which a perfect child accidentally hit upon the urethra in attempting to push the blunt end of a hair-pin up one of the channels of the body, by the same perverse ingenuity, in all probability, as leads children to insert peas or beads into the nose, or meatus auditorius externus.

So far as the materials of the foreign bodies were concerned, they were, in the first case, generally soft, non-encrusted gum-elastic catheters, but in two instances metallic; and in three instances the gum-elastic instrument had become calcareously encrusted. In the second, the pipe was hard and non-pliant—sonorous, however, to touch, but impacted by each extremity in the coats of the bladder, from the occurrence of ulceration. In the third, of a metallic nature, but exceedingly ill formed for recognition or extraction.

If the soft and pliant nature of the material of which the gum-elastic catheter is composed affords a greater apparent facility in effecting the extraction of such a foreign body, this advantage is in practice quite lost by the difficulty its softness and non-sonorous character oppose to its ready recognition. If, therefore, no means of examining the bladder are employed, but the introduction and manipulation of the common sound, the existence of such a soft and non-sonorous body as an elastic catheter may easily be overlooked. When incrustation communicates to it new characters which facilitate its identification, such a procedure may suffice. In practice, however, I believe the recognition of the foreign body, and its extraction, can easily be effected at the same moment. For this purpose, nothing more is requisite than the common dressing-forceps usually carried in the pocket-case. When slightly curved in the blades, and with teeth extending well down towards the joint between the blades and shanks, the instrument will be still better suited for our purpose.

The patient, either chloroformed or not, as may seem most advisable, should be lying on her back. The surgeon, standing on her left side, introduces the forceps, with the blades closed, into the bladder. If the bladder is full of urine, the opening of the blades usually at once permits the urine to escape, and brings the foreign body within their grasp as they are gently closed. Should nothing be felt between their blades, these may be opened and closed in another axis, and so, until either frequent tentative use of the forceps proves the bladder to be empty, or something is felt between their blades. If there is nothing, the forceps are withdrawn: the examination is complete. If the forceps cannot close beyond a certain extent, or, when closed, cannot be withdrawn, there is certainly something within their grasp. The forefinger of the surgeon's left hand should now be carried up the vagina as high as a point corresponding to the neck of the bladder, and the foreign body drawn down against its point; the forceps being rotated, so as to bring first the one end, and then the other, against the finger's point, so as to determine the distance of each extremity from the part held in the grasp of the forceps. Now, supporting one or other extremity of the foreign body with the finger, the forceps are made to dip along its surface, and the extreme point is secured. As the forceps are withdrawn, the foreign body comes away, embraced and protected by the extremities of the blades.

When, as in the second and third cases, the foreign body is rigid, and, by its form and nature, or prolonged residence in the bladder, has become impacted in the vesical coats, by ulceration occurring at one or both ends, the same procedure, slightly modified, is to be adopted. The forceps are gaped in different axes until the foreign body is secured somewhere about its centre; the forceps are then carried steadily down till they push back the vesical coats from the one or other extremity of the foreign body; and then, making traction on the end thus liberated from the pouch within which it was imprisoned, the extraction is completed by the simple withdrawal of the forceps.

I am aware that in cases where hair-pins, needles, pins, etc., have been lodged in the female bladder, hooks, or ingenious instruments calculated to secure, turn, or double-twist the foreign body, have been recommended. To the common blunt hook for the extraction of a hair-pin, no objection need be urged, though certainly its employment is not likely to be of the smallest advantage in the extraction of any other foreign body; while its efficiency cannot be greater than, and in the cases narrated not so great as, that of the forceps, employed as I have described. As regards the instruments for turning or bending a metallic foreign body: so long as it can be shown that so accessible an instrument as a pair of dressing or polypus forceps will effect all that is wanted with precision, rapidity, and efficiency, I can conceive no necessity for the surgeon encumbering himself with implements of such doubtful and at best occasional advantage.

THE CURE OF INTERNAL ANEURISM.*

By JOLLIFFE TUFNELL, Esq., Dublin.

Believing that the exhibition of a preparation illustrating the mode of cure of internal aneurism by consolidation, together with a short history of the case, showing the influence of position in effecting this end, would be interesting to the members of the Association, I have brought the morbid specimen for their inspection.

The patient, from whom this preparation was removed, was a gasfitter, aged 55, who was admitted into the City of Dublin Hospital, with ascites and anasarca, upon January 29th, 1868; but who had been lying in his own room, unable to rise, from October preceding.

When he first came under my observation, he was pale, wasted, and weak; his upper limbs were attenuated; his lower extremities were anasarcous, more especially the right. The abdomen was distended by ascites, and traversed by dilated veins; the ribs and sternum projecting and defined, with emphysematous clearness upon percussion over the whole thorax. The breathing was very much oppressed, with slight hacking, continuous cough. The heart's action was regular; but the sounds were very indistinct and murmuring, and the pulse so weak as scarcely to be perceptible at the wrist. He had double scrotal hernia, with hydrocele upon the left side, and large flabby testes. The urine was clear-coloured and healthy. When tested by heat and nitric acid, there was no evidence of albumen. Its specific gravity was 1015; and the quantity passed not much below the natural standard. The bowels were obstinately costive.

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* Presented to the Surgical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

The treatment adopted was that calculated to support the animal powers, and to eliminate the fluid from the abdomen. Aperients, consisting principally of the compound powder of jalap, were administered, and the tartrate of iron with juniper freely given, but without any appreciable effect. Tapping was resorted to upon March 10th, in order to relieve the excessive dyspnœa, at the patient's urgent request; but, although performed whilst lying recumbent, and well supported by stimulants, he speedily sank, and died the same night.

Upon making an examination of the body, eighteen hours after death, the internal organs presented the following appearances. The lungs were generally emphysematous; the heart was increased in size from dilatation of the right ventricle, and the mitral valves diseased, with dilated orifice. The liver was pale, greyish, and greasy; but presented no sign of cirrhosis. The kidneys were smaller than natural, granular, and nodulated; the pelves enlarged; and the cortical portions contained numerous small cysts, some of the size of a pea, but many larger. The ureters were much dilated, their orifices being open; but the bladder was thickened, sacculated, and reticulated, with the middle lobe of the prostate so enlarged, as to obstruct the walls and the neck of the bladder. The arterial system was universally diseased. The aorta and the common and external and internal iliac arteries were all studded with atheroma. Upon the right side, the common iliac artery had been converted into an aneurism of the size of a large pigeon's egg; and this was three parts filled with fibrine undergoing the process of cure. Upon the left side, there was a second aneurism engaging the internal iliac artery, but entirely cured. The sac was contracted to the dimensions of an ovary, and, upon section, found to be equally solid and dense in consistence. The inferior vena cava was adherent to the posterior aspect of the aneurism of the common iliac, and, in addition to this, was filled to a considerable extent with coagulated blood. These conditions and appearances will all be seen in the preparation and drawing.

The brittleness of the abdominal aorta and its branches, and consequent loss of elasticity in this case, had led to the formation of two aneurisms in juxtaposition; and yet, in an individual (than whom it would be difficult to find one more generally the subject of disease), Nature had repaired the mischief altogether in one aneurism, and in the other was in process of cure.

Now what Nature has here done spontaneously, we may successfully imitate; and, by the means of fibrination, cause the blood, in its passage through the aneurismal sac, to leave upon its lining surface such consecutive layers as shall at first diminish the cavity, and ultimately, entirely, or partially, fill it up.

This fibrine is the result of a purely mechanical action. The deposit becomes, it is true, so intimately connected with the sac, as to be regarded by some as an organised product; but it is not so. It has no connection whatever with inflammation, or the exuding of lymph; it is pure and simple fibrine; and we have but to control the distensile action of the heart, and to reduce the forcible flow of blood, which is thinning and destroying the sac, by position, rest, and sedatives, to rob it of its noxious characters, and to convert it into the medium of cure.

The treatment of external aneurism by compression has proved that, in order to cure this disease, it is not necessary to do more than diminish the current of blood, so that it shall not be capable of giving forcible distension to its walls; and by position alone in internal aneurism much may be done to effect this end. In the recumbent position, indeed, does the main point of treatment lie. Placed horizontally for some time, and kept at perfect rest, the heart's action of an aneurismal patient will be reduced thirty beats per minute (as, for instance, from 96 to 66); and, if this diminution be calculated, it will be found that in twenty-four hours the sac of the aneurism, when the patient is recumbent, will have been distended with blood no fewer than 43,200 times less often than when the sufferer was erect.

Consolidation by position is a treatment that may almost universally be adopted. It produces no aggravation of the symptoms, no injury, or risk of life; and many cases, now considered hopeless and given up in despair, may not only be rescued from death, but restored to comparative health.

The case which I have here adduced, was one of spontaneous cure, brought about by position *ex necessitate* maintained; but, in the next instance (one of a series of recoveries), I will briefly illustrate the subject of consolidation as artificially brought about.

The patient, in this instance, was a die-cutter in steel, a man, named Parkes, 54 years of age, who was admitted into the City of Dublin Hospital, under my care, upon September 18th, 1854. He was suffering from thoracic aneurism; the tumour being three inches in diameter, considerably elevated above the surrounding skin, and situated to the right of the sternum, between the second and fifth ribs, occupying the sites of the third and fourth, which, together with a portion of the sternum, had been absorbed. The fingers, when laid upon the tumour at its most projecting point, pressed against a soft, cushiony, elastic, pulsating surface, gave to the touch the sensation of the integument only intervening between the observer and the blood contained in the sac. The aneurism evidently sprung from the anterior aspect of the right side of the ascending portion of the arch of the aorta; and was rapidly approaching the surface, absorbing all before it in its course.

Treatment was commenced upon September 19th. Upon Oct. 15th, the tumour had become firmer, and flattened in the centre. Towards the middle of November, it was gradually getting dense; and, upon December 13th, Parkes left the hospital for his home, where he promised to remain at perfect rest for a while.

I did not see this patient again until December 1857, after an interval of three years. He now called upon me in reference to an ulcer of the leg. Upon questioning him with respect to the aneurism, he stated "that it never troubled him now"; that he was quite well as regarded it, and working at his trade as a die-cutter in steel. I stripped him and examined the chest. The first point that attracted my attention was the enlargement and tortuous condition of the abdominal and pectoral cutaneous veins; the epigastric, circumflex, and mammary, having assumed the condition of large venous trunks. The aneurismal tumour projected to the right of the sternum, nearly midway between the clavicle and nipple, presenting a bulging prominence of the size of a small saucer, making the right side contrast strongly with the hollow intercostal spaces and masked ribs upon the left. No pulsation was visible in the tumour, even when any testing object (such as a piece of white paper, for instance) was placed upon it. To the hand, it felt dense, and the cardiac impulse from within was unheeded by the patient.

The sound upon percussion was dull over a very large space around the heart; whilst to the ear was given a double sound, intermediate in time to the contractions of the heart. Upon deep inspiration, this portion of the chest did not expand. The general appearance indicated a barrier to the return of blood to the right side of the heart. There was some congestion of the face, which was increased on stooping, with puffiness of the neck to a slight degree. There was no interference by pressure upon the trachea or œsophagus. There was nothing abnormal in the carotid or radial pulses, and the circulation was equal upon both sides of the body. He stated that he lay at night upon the right side to sleep, and could not do so upon the other. He had been regularly working at his trade; and one of his most recent acts had been the cutting of a new seal for the College of Surgeons in Ireland; and it is from his hand that the die has issued which now stamps the diploma of the Dublin College of Surgeons.

CASE OF DISTENDED PERICARDIUM, THREATENING DEATH: RELIEVED BY PARACENTESIS.*

By C. G. WHEELHOUSE, Esq.,
Surgeon to the Infirmary, Leeds.

In the *Medical Times and Gazette* of November 3rd, 1866, my friend and colleague Dr. Clifford Allbutt very briefly placed on record a case of acute rheumatism complicated with distended pericardium, in which immediate death was warded off by the operation of paracentesis.

I should not have ventured to trespass upon the time of this meeting with the details of a solitary case, and especially of a case which has already been published, if I had not thought—1, that the treatment adopted was of more than usual importance; 2, that the result justified me in hoping that, by making it still more fully public, I might possibly furnish the means of hereafter saving an occasional life by surgical interference when the resources of medicine appear to be exhausted; and 3, that the mode of operation adopted needed some further explanation. I need not occupy your time by describing the whole course of the patient's illness, but will simply take up the case at the point at which my help was first sought.

On September 18th, 1866, C. S., a gas-pipe layer, was admitted into the Leeds Infirmary under the care of Dr. Allbutt, suffering from very acute rheumatism, both muscular and arthritic, accompanied by dyspnœa and oppression. On examination, the pericardium was found to be considerably distended with fluid, and there was acute pain in the region of the heart. A large blister over the heart and full alkaline and opiate treatment was ordered for him.

On the 19th, at 11.30 P.M., Dr. Allbutt was urgently summoned to the assistance of this poor man, who was said to be dying. On reaching his bedside, he found that this statement was unfortunately only too true; and having, in the practice of the late Professor Trousseau, seen three or four instances in which the operation of paracentesis pericardii was resorted to for the relief of similar conditions, he determined to seek surgical aid for his patient.

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* Read before the Medical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

I reached the patient within half an hour, and found him sitting up in bed, his head resting on his hands, his elbows on his knees, struggling for breath. He was covered from head to foot with a copious cold sweat, and his hair was dripping; his skin was dusky and cold, his eye sunken and glazed, and for two or three hours he had been unable to speak.

The case needed but a few words of explanation from Dr. Allbutt, who, telling me that he believed all medical treatment was exhausted, asked my opinion as to the possibility of saving the man by paracentesis. I believed that there was, so far, no successful case of this operation on record; but, with dissolution staring the man so closely in the face, I felt that, at all events, he could not possibly be placed in a more critical condition by the operation, and therefore determined to give him the chance. I rapidly mapped out the area of pericardiac dulness; and, bearing in mind the *normal* position of the heart, I assumed what would probably be its *altered* position. My object was to strike the sac at the lowest possible point, and to avoid coming into contact with the thin walls of the distended auricle.

I chose for my purpose a small trochar. This I placed on the upper margin of the fifth rib, half an inch to the left of the sternum; and, inclining it upwards and inwards, thrust it steadily forwards through the intercostal space towards what I believed to be the centre of the ventricle. I pushed it onwards until I could distinctly feel the movements of the heart with the instrument; and then, sheathing the point, I advanced the cannula well up to the heart, until I could feel and see, and demonstrate to those around, the impulse of the heart as communicated to the instrument. The trochar was then withdrawn, and the fluid allowed to escape. This it did at first in a steady stream, which soon subsided into a saltatory flow coincident with the heart's contractions. The fluid consisted of a pale pink coagulable serum, and, upon the whole, about three ounces escaped. During the operation the patient gradually obtained relief; and after the cannula was withdrawn, the bed-rest was removed, and he was able to lie down. The breathing was relieved, and was now only 36 per minute; and he was able to whisper to us that he felt unspeakable relief. The pulse had lost its rapid and struggling character, and could easily be counted, its number being about 110. The area of dulness was decidedly diminished. The operation was followed by several threatenings of syncope, which were, however, warded off by large and repeated doses of brandy, all other medicines being omitted.

Next day, the cardiac dulness had not increased; but in the evening the breathing became more laboured, and considerable delirium came on. Another large blister was placed on the region of the heart, and half a drachm of liquor morphiæ was given; ten drops were also ordered to be repeated every six hours. From this time the patient steadily improved, and on October 13th was discharged cured. On his discharge, the pericardial dulness was little, if any, beyond the normal extent. There was a loud blowing systolic murmur heard over the apex.

Such is the case, as you will find it briefly recorded by Dr. Allbutt; and my only object in bringing it again before you at the present time is; first, that I may say that the cure has continued perfect, and that the patient is still alive, and able to follow his employment; and secondly, that I may contrast the method by which I performed the operation and attained perfect success, with that adopted by Professor Trousseau in, I believe, every instance with a fatal result.

I used the simplest means I could think of; disturbed the natural relations of the important viscera with which I had to deal as little as possible, and was content with present relief, leaving all after-conditions to chance. I felt that, with a small trochar and cannula, I could do very little harm, unless I had the ill fortune to strike the distended auricle; for I could not doubt that a light hand would so easily recognise the touch of the ventricle that any chance of its penetration was remote; and, having succeeded in withdrawing the fluid, and in obtaining decided relief to the labouring heart, I was content.

In Professor Trousseau's case, on the other hand, a very different plan was adopted. A free incision along the intercostal space was followed by a studied exposure of the bag of the pericardium; the pericardium itself was next laid freely open and evacuated; and finally, in the hope, I presume, of insuring its after adhesion to the walls of the heart, it was washed out with an iodised solution. I feel that had I, in the present instance, adopted this more heroic plan, my patient would undoubtedly have died before I could have completed the operation.

I attribute my success, then, to the simplicity of the means adopted; and I think that the case proves that, when all other means have failed, a distended pericardium may be tapped with safety, and with a fair prospect of rescuing a patient from the jaws of immediate death.

THERAPEUTICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

CASE OF AGUE WITH EXTENSIVE DESQUAMATION OF THE CUTICLE.

By Charles H. Robinson, L.K.Q.C.P., Dublin.

On the morning of 29th October, 1864, I saw William Jarvis, aged 31, suffering from diarrhœa, and severe headache. I ordered him an astringent pill and a draught containing quinine. In the evening he had a regular attack of ague; among the other symptoms, he complained of intense pain in the back. He was put to bed, bottles with hot water were applied to the feet, and he was allowed hot tea *ad libitum* to drink. The cold stage did not last very long; and twenty minutes after perspiration began, he took twenty minims of tincture of opium. He was ordered quinine in two-grain doses every third hour. Later in the evening, he had another attack, for which the same treatment was ordered. November 1st.—He had had no attack since; the skin of his hands (palmar surface) was peeling off. He mentioned to me this morning that in two previous attacks the same thing occurred. He took one grain of the sulphate of quinine twice daily. November 2nd. —His appetite, which had been very bad, was improving. He was ordered to continue the quinine five days longer. November 4th.—To-day the skin of both hands and fingers came off exactly like a glove wanting the back. November 10th.—The skin of the soles of the feet came off yesterday. He was using a mixture of grease and tar to harden the exposed surfaces.

I consider this case peculiar, never having heard of the kind before. A little of the cuticle also came off his chest, and about an inch above the wrist.

BROW AGUE, CHANGING INTO AN AGUISH ATTACK UNDER THE ADMINISTRATION OF QUININE.

By Stanley L. Haynes, M.D., Medical Superintendent of Laverstock House, near Salisbury.

I believe the following case will be deemed interesting from the conversion of hemicrania into an anomalous aguish attack.

F. H., aged 32, a somewhat slight, but healthy, attendant here, complained in February last of pain over the right eye and the anterior half of the temporal region, which was puffy to the sight and touch, and tender on pressure. This pain was continuous, but subject to exacerbations, especially at night, and was much increased by stooping, when giddiness and dimness of vision were added; it had been felt on waking a few mornings before, but was not preceded by any irregularity of health, or accompanied by any other change. He gave the following history. After enlisting in 1854 he went with his regiment to India in 1857; in 1861 he was insensible during seven weeks, in consequence of insolatio and resultant "slight brain fever." From 1862 to 1864 he suffered seven or eight times from "liver and fever" (by "fever" he meant ague), some attacks lasting a month or so, and one having a duration of five months. He was treated with quinine, which arrested the attacks; they always began between 10 and 11 A.M., and ended between 3 and 4 P.M., occasionally later, then leaving him unaffected for two, sometimes three, days. In 1864, having served his full time of ten years, he claimed his discharge and returned; the voyage caused his thorough convalescence. He continued quite well from that time until he complained to me. Suspecting, in the absence of all other ascertainable causes, and of recognisable symptoms of impaired health, that this headache was a sequence of ague, I prescribed quinine in five-grain doses. The first was taken at 8 P.M. At 2 the following morning he awoke, feeling very ill, as if he were about to have an attack of ague, and with much nausea; he then found he had a distinct, well-marked sweating stage, which lasted from ten to fifteen minutes, leaving him free from brow ague, and feeling well. Notwithstanding this attack (he had not sent for me during it), he took a second dose at 6.30 A.M.; this was not succeeded by any disagreeable effects or apparent action. He is not conscious of having had any hot, dry stage. Since the attack he has been perfectly well in every respect. The transposition of the cold and sweating stages, and their occurrence without the intervention of any dry stage, were remarkable. I have not seen any similar case recorded, and therefore publish this.

ON EPIDEMICS,

STUDIED BY MEANS OF STATISTICS OF DISEASE.[*]

By ARTHUR RANSOME, M.A., M.B., Manchester.

THERE is probably no more legitimate use of the instrument of statistics than its application to the study of epidemic diseases. It may be possible, by individual observation at the bedside of patients, to learn something of the nature of the poisons which originate these diseases—to note the mode in which they affect the organism, and the injuries which they inflict upon it; but no complete knowledge of these wandering disorders can be obtained by this method. When it is required to ascertain the conditions under which epidemics arise, and the laws which govern their progress, an altogether different mode of research is needed. This can only be attained by the accurate observations of many medical men, carefully recorded and collected together. Like the cyclones of the atmosphere, these storms of disease can only be tracked, and the laws of their course discovered, by the combined efforts of many observers, acting under the same regulations, and using instruments of the same uniform standard. That which Captain Maury and Admiral Fitzroy have done for meteorology and navigation, needs now to be attempted on behalf of medical science.

More than thirty years ago, Dr. Graves, speaking of epidemic and endemic diseases, says: "Were the rulers of civilised nations to bring into active operation a number of institutions which, discharging the functions of *medical observatories*, should observe and record the appearance and symptoms of epidemics, many curious facts relating to their origin and progress would soon be brought to light, and we might then perhaps be enabled to arrive at a knowledge of some general laws respecting their motions." This wish of a great physician has probably been echoed by many; but unfortunately, until lately, with very little result.

I need not repeat what has been said of the inadequacy of death records to answer the questions awaiting solution; at best, they leave undecided the time and place of the origin of any disease. We have need of a much more sensitive instrument with which to measure the fluctuations of disease, and to search for the causes of their rise and fall. What is required for the study of epidemic disease is a regular record, at sufficiently short intervals, of the number of fresh cases of the diseases occurring within certain definite, but sufficiently extensive, areas of practice; and, coincidently with this, an accurate numerical account of any concurrent circumstances which might seem to have a bearing upon the etiology of disease. There seems now to be some likelihood that these data may be obtained, at any rate in some parts of England.

Since the publication of the metropolitan returns in 1858, the importance of obtaining similar records from every district of the kingdom has been recognised by many persons. In 1860, a successful effort to carry out the scheme in that town and its neighbourhood was made by the Manchester and Salford Sanitary Association; and by the aid of all the public medical officers of the district, a very valuable series of weekly returns of disease was obtained, along with very ample meteorological records. It is gratifying to be able to state that these statistics have now been published with the utmost regularity and accuracy, every week for nearly eight years. During the same period, monthly returns of disease from St. Marylebone have been furnished—first, by Dr. R. D. Thompson, and then by Dr. Whitmore; and in 1865 and 1866, similar records were collected by Dr. R. C. Brown in Preston, and by Dr. Alfred Hill in Birmingham. The combined statistics from these four sources were published during fifteen months in the BRITISH MEDICAL JOURNAL, but were then discontinued for a time on account of their want of complete uniformity. This imperfection is now removed. In 1866, the powerful organisation of the British Medical Association was brought to bear upon the subject; at their meeting in Leamington, a committee was appointed to consider and report upon the whole subject, and at its instance, a uniform system for the registration of disease was brought forward and adopted at the meeting in Dublin in 1867. It will no doubt be satisfactory to the members to learn that, as one result of their decision, at the commencement of this year, four places—viz., Manchester and Salford, St. Marylebone, Birmingham, and Newcastle-upon-Tyne—began together to produce weekly returns upon the same plan, and with the same schedule of diseases.

I propose, in the present paper, to give a few of the results of these observations, so far as they are applicable to the study of epidemics. For this purpose, I have projected the returns upon the accompanying Charts in the form of curves, which represent the monthly returns of the new cases of each disease coming under treatment at the places named. The returns from Manchester and St. Marylebone are so similar in their extent, that they have been at once compared; but in Preston, the amount of public practice is necessarily much smaller, and the disease schedule was slightly different; I have therefore kept these returns separate (Chart VII).

The following points, which have attracted the notice of epidemiologists, seem to be susceptible of illustration by means of these curves. 1, the epidemic constitutions of different years; 2, contagion; 3, the wave of epidemic disease; 4, the succession of epidemics; 5, atmospheric influences; 6, endemic influences; 7, bodily predisposition to epidemic diseases.

It will not be necessary to give an exact definition of epidemic diseases before considering their natural history. Few physicians now doubt the propriety of the term zymotic at present applied to them. All their phenomena point to their production by the agency of substances which are of the nature of leavens or ferments; some of them, perhaps, living organised germs; others fluid, like vaccine lymph; others, again, some form of the ever present "germinal matter." All, however, seem to have a common source of power—a power resembling, in its effects, the mysterious agency of fermentation.

1. *Epidemic Constitutions of the Air.*—General observation shows that there are seasons especially favourable to the production and growth of the germs of epidemic disease—seasons in which they spread more widely and rapidly than at other times, and carry off a larger proportion of victims. Hippocrates and Galen ascribed this fostering power of different years, to what they vaguely call the "κατάστασις λοιμώδης τῶν ὡρέων." Sydenham also mentions the different epidemic constitutions of different years; but, with greater exactness, he acknowledges that these constitutions originate "neither in their heat nor their cold, their wet nor their drought;" they depend rather, he thinks, upon "hidden and inexplicable changes within the bowels of the earth." (*Med. Obs.*, 1, 2, and 5.) The rapidity of the course of some epidemics, and the steadiness of their progress in spite of obstacles, have been ascribed to the presence of this mysterious element; and the appearance of unhealthiness both in animals and plants; and the prevalence of kindred disorders in human beings shortly before the actual outbreak of epidemic disease, have seemed to many to betray the existence of wide-spread general causes.

The Charts show conclusively the presence of an epidemic influence extending over wide areas. A close examination of the curves proves that there is a remarkable correspondence between the curves of different epidemics at Manchester and Salford, and St. Marylebone. (See Charts I to VI). Notwithstanding the distance of these places from one another, their different climates, their various manufactures, and the different occupations and mode of living of their inhabitants, there is a close relation between even the lesser undulations of the waves of their diseases, such as can only be accounted for by the hypothesis of a common cause. (See especially Charts I, IV, and V.) It is evident that we have not yet grasped all the subtle influences at work around us; but we may at once conclude that "neither imperfect sanitary conditions nor simple contagion will account for all the phenomena of the production and propagation of epidemic diseases."[*]

It is worthy of notice also, that an epidemic influence may be either special or general; it may be favourable to one disease, as in the whooping-cough epidemic in 1861-62 (Chart III); or it may be a true pestilential atmosphere, and may foster nearly all kinds of epidemic diseases. We have evidence of this latter case in the years 1862-63, in St. Marylebone and Manchester, when successive storms of whooping-cough (Chart III), measles (Chart I), smallpox (Chart IV), and scarlet fever (Chart V) burst upon the country; and in the year 1865, when a similar series of plagues selected the population of Preston as their victims (Chart VII).

Contagion.—The belief in the fostering power of a general epidemic influence is not, however, in the least incompatible with the conviction that epidemics spread chiefly, if not entirely, by means of "contagion" or "infection". The constitution of the air at certain seasons may permit the more free growth of the germs of disease; and thus at these times it may be more readily conveyed from one person to another, and so spread rapidly through a community to all persons susceptible of its influence. Or, again, a predisposing influence may be exerted upon the individual members of a population, rendering a larger number of persons liable to receive the poison. The poison itself may in each case be derived from some previously infected person, and most probably is so derived, even in cases of the most isolated character.

The possibility of a spontaneous origin of epidemic diseases, however, is also not precluded by the hypothesis of a general favouring influence.

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[*] Read before the Public Medicine Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

[*] Diseases in Manchester and St. Marylebone.—Manchester and Salford Sanitary Association.

It is a doctrine, moreover, which has received very high sanction. Trousseau, in his *Clinical Lectures on Contagion*, says: "La spontanéité est un fait incontestable dans le développement des maladies même les plus contagieuses;" and he instances canine madness and "sang de rate" or malignant pustule in support of this statement, and affirms that originally every epidemic must have been generated spontaneously. Many will hesitate, however, before they accept this doctrine. There is, in the first place, some ambiguity about the phrase here employed; and I would point out that, in the cases mentioned by Trousseau, there is no evidence of the spontaneous generation of disease-germs, in the modern sense of the term. Each instance simply proves, that a poison, usually transmitted from one person to another, may, under certain circumstances, be grafted upon the organism from other sources. There is no proof in any case, either that the poison is not living matter or its product, or that it has been generated spontaneously. Surely, also, on other grounds, this is a doctrine to be received with caution.

When we consider, 1, the perfectly specific nature of these poisons, 2, the length of time that they retain their power, and 3, the multitude of ways in which they may be conveyed by air, water, clothing, animals, even by insects, we must hesitate before we commit ourselves to the sea of controversy respecting spontaneous generation. It is safer for the present, at any rate, to apply to these disease-germs, as to living beings, the dogma, "Omne vivum e vivo."

I do not venture to assert that our charts throw much light upon questions such as these; but it is interesting to observe, that the course of the more decided epidemics is such as the theory of their spread by contagion would indicate.

The Wave of Epidemic Disease.—I believe that Dr. Farr, in his letter upon the Cattle-Plague,* was one of the first to point out the regularity of the course of most epidemic diseases; and the truth of his observations is amply borne out by the statistics at our disposal. A glance at the chart will show that the course of each disease, when it becomes epidemic, has a remarkably regular, almost symmetrical arrangement, in its ascent and decline; and this arrangement is most distinct in the course of the most contagious diseases, such as scarlet fever and small-pox. Dr. Farr ascribes the peculiar course of these diseases to their constantly *decreasing rate of increase*. His theory appears to be, that an epidemic has a certain initial virulence of contagion, but that the intensity of its infecting power diminishes with each transmission; and "that the individuals left are less susceptible of attack, either by constitution or by hygienic conditions, than those destroyed." At each successive period, therefore, of the duration of the disease, it advances at a constantly diminishing speed, until it reaches its highest point, when it suddenly falls at a rate, according to calculation, rather greater than it rose; but, according to our tables, probably owing to the lack of susceptible persons, it descends at about the same or a slower rate than it spread.

It is difficult to resist the conviction that we have here at least a partial solution of the problem before us, and that it indicates the direction in which to look for further knowledge of the subject.

It may be interesting to note that a strikingly similar course to that indicated on the charts would be taken by an epidemic spreading simply by contagion, and travelling at a certain uniform rate, like a spark smouldering along a piece of tinder; if the area, over which the population is spread, approximated to a square or rectangle, as it does in most of our large towns; the intensity of the action would there be greatest a little after the middle period of the epidemic, and it would sink rather more rapidly than it arose, dying for want of fuel, only retarded in its fall by the constantly increasing quantity of infected fomites it leaves behind it. (See Chart IX.)

The Succession of Epidemics.—The disease-curves display another curious phenomenon—the apparent hostility of one epidemic to another—shown by the successive, not simultaneous appearance of these diseases. This phenomenon was much noticed by Sydenham. In his Description of the Epidemic Constitution of the years 1669-1672 in London (*Med. Obs.*, Sec. 4, Chap. I), he speaks of one epidemic being driven out by another "ut clavum à clavo," thus using the simile employed by Shakspere, "as one heat another heat expels, or as one nail by strength drives out another."—*Two Gentlemen of Verona*, Act II, Scene 4; see also Erasmus, *Adag.*, "ἥλῳ τον ἧλον ἐκκρούει."

This apparent incompatibility, so to speak, of epidemics is displayed in the two great series of these diseases, at Manchester and St. Marylebone in 1861, 1862, and 1863, and at Preston in 1865-1866. In the first series, whooping-cough, measles, small pox, and scarlet fever succeeded one another; and in the second, scarlet fever, small-pox, whooping-cough, and measles. In each case as soon as one epidemic had reached its height another took its place. In the words of Sydenham "Ita vicissim mortales lacessunt, prout anni genius et sensibilis aeris temperies huic aut illi magis suffragantur."

The hostility of these diseases to one another is, however, more apparent than real; it is probable that the last quoted sentence gives the clue to the answer. It may depend, as we shall shortly see, chiefly upon the varying influence of the seasons, each disease having a special alliance with the different periods of the year.

Atmospheric Influences.—I will now not enter upon the discussion of the question of the influence of atmospheric changes upon disease. This subject has already been carefully studied by different observers. I will only say, at present, that no one can view the curves drawn upon the charts and compare them with the different months of the year without allowing that each season has its own special burden of sickness to bear. Diarrhœa in Summer, scarlet and typh-fevers in Autumn, measles, whooping-cough, bronchitis and catarrh in Winter and Spring. In the words of Jeremy Taylor, though with different meanings to them, "Calentures and surfeit, cold and agues are the four quarters of the year, and all minister to death." (*Holy Dying*, Chap. I.)

It may be remarked also, that if the course of each disease were traced, week by week, instead of month by month, a still closer connection would be discovered between their undulations and the variations of the different meteorological elements. Man's life is still "a breath, servile to all the skiey influences," and his body is the field where

> "Hot, cold, moist, and dry, four champions fierce
> Strive there for mastery, and to battle bring
> Their embryon atoms."—*Milton.*

Endemic Influence.—It is not surprising that a fierce word warfare should have been carried on between 'pythogenists' and 'contagionists,' between those who believe that 'filth breeds pestilences,' and those who ascribe the propagation of these diseases solely to a personal or mediate transfer of the specific poison. There are, on the one hand, so many facts showing the subtlety and power of contagion; and, on the other, so many proofs of the evil influence of imperfect sanitary conditions, that neither party need seek far for arguments to support its respective hypothesis. In these discussions, however, it has been too often forgotten, that there are both predisposing and exciting causes of disease, and that, in many instances, these morbid influences must work together in order to bring about an attack of disease; as Dr. Addison has well said—"One blade of the destroying shears is forged at home, without it the other cannot do its work."

The predominating power of contagion in spreading epidemics has already been pointed out, but it is impossible to doubt that endemic influences are also at work, and must materially affect the result. It will be seen from the charts of the diseases of Manchester and London, that certain classes of disease are almost always more prevalent at one place than at the other. Affections of the air-passages (Chart II), bronchitis and catarrh, pleurisy and pneumonia, are usually much more common in Manchester than in St. Marylebone, and we find accordingly, that measles (Chart I), an exanthematous disease accompanied by catarrh, is rather more prevalent in Manchester than in London. It is interesting to remark, also, that in the two winters, 1860 and 1864, in which the lung diseases in St. Marylebone mounted above those in Manchester, in those years only does measles become as an epidemic, most prevalent in London.

Whooping-cough, again (Chart III), another zymotic disorder attacking the air-passages, never rises in St. Marylebone to the height it attains in the smoky towns of Manchester and Preston. Diarrhœa and dysentery* (Chart VI) on the other hand, are constantly much more widely spread in London than in Manchester, and we know that in the last two epidemics of cholera, London was very severely visited by this disease, whilst Manchester almost entirely escaped its ravages; a circumstance of no little interest in connection with the question of water supply. It seems highly probable, that if regular returns of disease were made at other places, many interesting and perhaps important conclusions might be drawn respecting the favourite haunts of particular diseases, and the reasons for their prevalence in various parts of the country.

Predisposition to Epidemic Disease.—We are now brought naturally to the consideration of bodily predisposition to epidemic disease. The multitude of fostering influences which have been mentioned makes it very difficult to apportion to each its due share of blame in bringing about the result. It might be supposed that the catalogue of morbific agencies was complete, but a very important ally of disease has yet to be considered; a special aptitude of the organism for the reception of the poison. All persons are not equally liable to take infectious disorders, as there are some people who can resist, to a greater or less extent, the action of drugs or poisons, so there are individuals who pass through life without suffering from any epidemic disease, and others who take every complaint. Many of the conditions which modify the tendency to contract disease are well known, such are age, previous infection by the same or kindred diseases, acclimatisation or frequent exposure to infection, pregnancy, and lastly, the singular protection from some of these disorders which seems to be afforded to infants during suckling. But, apart from these circumstances, the proclivity to disease varies in different persons and in the same person at different times. In searching for the causes of this difference, great importance must, I think, be attributed to variations in vital energy from whatever causes they may arise. Unsoundness of the body, whether general or local, is probably a very common source of danger when epidemic diseases are prevalent.

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* *Social Science Review.*—Chart VIII gives Dr. Farr's calculated course of the cattle plague.

* They are more fatal, however, in Manchester than in St. Marylebone, especially amongst infants—a fact probably due to several causes; but chiefly, perhaps, to the want in Manchester of mother's care and suitable diet, and to the foul atmosphere in which the children live, produced by the vile system of "privies and ashpits", which prevails in Manchester and Salford.

1. *Of General Weakness of the Body, as a Predisposing Cause of Disease.*—In some seasons of epidemic influence, the virulence of the dose of a zymotic poison may be so great that it will attack, with equal readiness, the strong and weak, the young and old, but in most cases we may be tolerably sure that some condition of the body, favourable to the disease, has facilitated its attack; that treachery has been at work within the camp; that the weakness of the body has been the opportunity of the disease. I would especially refer to typhus fever as the disease whose history shows most clearly the truth of this statement. The most powerful predisposing causes of typhus are, for the most part, simply depressing and weakening influences; starvation and destitution, bodily and mental fatigue, depressing emotions, and intemperance—in the simple but striking words of Hecker (*Epidemics*, p. 14,) "want, misery, and despair."

There are, however, two statements apparently opposed to this view, which must be noticed in their order.—1. That typhus selects its victims from adults and especially from males; and 2. That there is a larger proportion of deaths to cases amongst the rich than amongst the poor. Nearly all observers concur in admitting the truth of the first of these propositions, but there is more doubt about the accuracy of the second statement, although it has been much insisted upon by Irish physicians. (See *Barker and Cheyne*, 1821, i, 321, 329, 428, 467.)

Dr. Graves says (*Clinical Medicine*, p. 59): "It is a fact that the maximum of mortality was among the rich, and that those who were most attended to died most speedily. In the epidemics of 1816, 1817, 1818, and 1819, it was found by accurate computation, that the rate of mortality was much higher among the rich than among the poor." On the other hand, Dr. Murchison suggests, that the disparity in the mortality of rich and poor is due to the fact that "the cases of fever among the rich were either typhus or enteric fever, whereas, a larger proportion of the cases among the poor were relapsing fever or febricula, which are rarely fatal."

The difficulty of reconciling the first of these facts with our theory, may also be partly overcome by noticing that it is mainly the mortality, and not the number of cases, which is thus predominant, and Dr. Addison is probably right, when he asserts, with regard to the onset of epidemics generally, that they usually manifest themselves amongst the population in a certain fixed order; "they are first noted in infants, then in children according to their age and strength, then in the weakly and feeble, afterwards in females and the aged, and last of all in the robust and in the middle period of life."

We may also probably set against these statements two physiological truths which will perhaps account for some part of the heavy mortality amongst adults and amongst the better classes:—1. Bernard's observation, that injuries (such as those inflicted in the course of physiological experiment) are resented constitutionally much more seriously by well-bred animals than by those of less perfect breed; and, 2, the well-known fact, that persons long accustomed to the action of lowering influences, will resist any sudden attack of disease better than those who have always enjoyed good health. On the whole, then, we cannot but believe, that a weak or unsound state of the body is favourable to the onset of disease. Local weakness, or unsoundness of certain parts of the body, is also not without its influence in producing a tendency to disease.

2. *Of local unsoundness of the Body as a predisposing cause of Epidemic disease.*—It is a curious and interesting fact that those epidemic disorders, which affect chiefly certain organs of the body, are most common at the season of the year when other non-specific affections of these organs are prevalent, and in those places most favourable to those diseases. Thus, as we have already seen, whooping-cough and measles, (Charts III and I) generally attain their highest prevalence as epidemics, in the winter and spring, when bronchitis and other affections of the air-passages abound. Scarlet fever (Chart V) nearly always spreads most rapidly in autumn, and occasionally in the spring, and at both these seasons ordinary observation tells us that relaxed and ulcerated throats are most common. Cholera, also, although it may exist in cold weather, has always, in common with diarrhœa, received a powerful impulse from a high temperature (*e.g.*, a weekly mean of over 60° Fahr.) Fevers of a typhoid character, again, have generally been observed to rise towards the latter end of summer and autumn (Murchison, p. 418), when the liver and bowels are most liable to become deranged; and a high authority states that "circumscribed epidemics, or the ordinary autumnal increase of enteric fever, are often preceded by a great increase of diarrhœa." (Murchison, *Continued Fevers*, p. 455.) I do not wish to lay more stress upon these coincidences than they deserve, or to draw hasty conclusions from them; but if they should prove to be corroborated by further observations, I would submit that they may perhaps indicate the mode in which these diseases sometimes make their entrance into the body. It may be that the weakness of particular organs affords an opportunity for the entrance of the epidemic poison which has an "elective affinity" for those organs; and we may be able to meet and ward off attacks of epidemics, by paying especial attention to the condition of those unguarded parts of the body, through which the practicable breach has been made. In this way, possibly, both preventive and eliminative measures during epidemics might be justified, and their use restricted to their proper limits.

I cannot conclude this paper without an urgent appeal to the members of this Association to use their powerful organisation to procure a more general and accurate registration of disease throughout the country. Whatever may be the opinion of this meeting respecting the conclusions which I have ventured to draw from the scanty materials at my command, no one, I think, can doubt that such statistics as those from Manchester and St. Marylebone, if accurately and regularly recorded, are an important aid to the study of epidemics. Only by steadily and carefully tracking these diseases from their origin, following their course from place to place, and noting the influence upon them of surrounding conditions—only by some such method as this can we hope to solve problems, which rank amongst the most interesting in the science of medicine, and the most important to mankind.

CLINICAL MEMORANDA.

PECULIAR CASE OF POISONING BY OPIUM.

By John S. Boyd, L.R.C.P., L.R.C.S.Edin., Wigton.

On account of the very small number of cases published where death might be attributed to either of two sufficient causes, the following is somewhat remarkable.

J. M., aged 32, owing to circumstances which preyed upon his mind, attempted suicide by taking two ounces of laudanum at 7 A.M. After waiting for about twenty minutes, and thinking the poison was not going to take effect, he cut his throat by making a circular incision extending about two-thirds of the way around the neck, dividing in its course, to a slight extent, the thyroid cartilage and the œsophagus, but not wounding any of the important vessels of the neck. It was on account of the latter attempt that Dr. Tiffen (whose assistant I am) was called to see the patient; the fact of his having taken the laudanum not being then known. He was seen again at 11.45, when he continued to progress favourably. I saw him about 5 P.M., ten hours after he had taken the opium, and did not notice any symptoms of poisoning by opium. About 9 P.M., his attendants noticed that he appeared drowsy, and was inclined to sleep. About 4 A.M. next morning, he seemed much worse. Dr. Tiffen saw him shortly afterwards, and found all the appearances of narcotic poisoning. The patient then admitted having taken the laudanum. Strong coffee, brandy, etc., were administered; but they were of no avail, and he was quite comatose when I saw him at 8 A.M., and remained so until about 12.30 P.M., when he died, thirty hours after he had taken the poison.

This case appears to me important for the following reasons.

1. In the absence of a medical man, death would have been attributed to the wound in the throat.

2. The case would tend to overthrow the general opinion that the effects of opium must show themselves within an hour after administration.

3. Death was protracted for a longer period than in any other case I have seen recorded.

4. The case affords room for inquiry in regard to the effect of shock postponing the action of the poison.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

WESTMINSTER HOSPITAL.

GLANDULAR TUMOUR IN THE UPPER LIP, OF FORTY-ONE YEARS' GROWTH: REMOVAL: RECOVERY.

(Under the care of Mr. FRANCIS MASON.)

A WOMAN, aged 45, applied at this hospital in May last with a tumour of about the size of a Tangerine orange on the left side of the upper lip. She believes she was struck on the part when she was four years old. Since then the tumour has slowly but steadily increased in size. She has often wished to have it removed; but has been fearful of hæmorrhage. The tumour has never given her any pain, and manipulation now causes no discomfort. It is firm, elastic, and nodulated to the touch; flattened, as it lies in proximity to the gums, receiving indentations from the neighbouring teeth, and convex on its anterior surface, stretching the skin considerably in this direction. She has always enjoyed good health, and is now quite well.

Mr. Mason removed the growth by a single incision through the mucous membrane at the back of the tumour. There were here and there adhesions; but otherwise the tumour was readily enucleated. A section showed that it was of a glandular character, being composed of a number of small lobules loosely connected. In the centre, a few delicate plates of calcareous deposit were noticed. Under the microscope, the irritation of the usual gland structure, such as is seen in the labial glands, was observed. The wound healed by first intention, and the patient did perfectly well.

Mr. Mason drew attention to the fact, that he had made the incision on the mucous surface. The removal of the tumour would have been facilitated had the incision been carried through the skin; but he preferred to leave no visible scar. It was remarkable that the patient had left the tumour unattended to for forty-one years; but such cases were not so uncommon. He had had recently under treatment two patients, upon whom he had operated successfully—one a man who had had a sebaceous cyst on his forearm for twenty years; and another a woman who had had a cyst on the forehead for twenty-five years.

CHESTER GENERAL INFIRMARY.

A PECULIARLY MALIGNANT CASE OF TYPHUS FEVER.

(Under the care of Dr. DAVIES-COLLEY.)

Reported by W. B. DALBY, M.B.Cantab., House-Surgeon.

HOW malignant a type may sometimes be assumed by typhus is well shown by the following case, especially noting—1, the immense size and livid colour of the spots; 2, the early appearance and severity of the delirium; 3, the profuse sweating throughout the disease; 4, the occurrence of death so soon after the commencement of the fever.

R. M., aged 22, was admitted into the Infirmary on Friday, Sept. 4th, at noon, under Dr. Davies-Colley. He was a strong, sober man. Two of his fellow-labourers, who were also near neighbours, died the week before of typhus. He was at his work at Birkenhead on Saturday, August 29th, and in his usual robust health. When he went home, he complained of headache; this continued; and on the following Monday, after working for two hours, he was compelled to give up work and go home. The next Thursday (September 3rd), he travelled by train from Birkenhead to Chester, and was admitted into hospital next day. He then talked loudly; put his hand to his head, where he said he had great pain; answered questions in a wild manner. His tongue was dry, brown, and tremulous; there were sordes on the teeth. Pulse strong, 92; temperature 104.8 deg.; respirations 35. He squinted slightly; and sweated in the upper part of the body, which was covered with mulberry coloured spots; the largest of which were of the size of a fourpenny-piece. In an hour's time, he was furiously delirious; and continued so during the night. On the morning of the 5th, he was quieter. Pulse 96. He was sweating profusely; picking at the bed-clothes; and had twitchings of facial muscles. From this time his pulse rose, till at 8 P.M. it was 150. He was now so furiously delirious, that he required two nurses to hold him in bed. The spots on his body had become as large as half-crowns; the stench from his breath filled the ward. He frothed at the mouth with blood, and blood oozed from his nostrils and ears. He died at 3 A.M., Sept. 6th.

Thus, he was first attacked on the afternoon of August 29th; he was still at his work on the morning of August 31st; he travelled a considerable distance by train on September 3rd; he was admitted into the Infirmary on September 4th; he died at break of day on September 6th.

QUEEN'S HOSPITAL, BIRMINGHAM.

PARALYSIS OF THE THIRD, FOURTH, AND SIXTH CRANIAL NERVES ON THE RIGHT SIDE; DILATED PUPIL AND LOSS OF ADAPTATION OF RIGHT EYE; DOUBLE VISION; LOCAL ACTION OF ATROPIA AND CALABAR BEAN.

Under the care of DR. FLEMING.

(Reported by JAMES SAWYER, M.B., Resident Physician.)

R. P., aged 35, miner, was admitted on June 9th, 1868.

History.—He enjoyed good health until six months ago when he first felt pain at the back part of the head and over the right parietal eminence. He does not remember any blow on the head nor fit of any kind, there are no indications of the tubercular or cancerous cachexiæ, and he firmly denies having ever had syphilis. The pain was dull and heavy, gradually increased in severity, scarcely ever left him, and prevented him sleeping at night. About four months ago vomiting came on and he rejected almost every meal as soon as it was taken; and when the stomach had emptied itself the retching still continued. His appetite remained good, there was no pain after meals, and his bowels were constipated. The vomiting gradually became less frequent, and ceased entirely about three weeks after its accession. The pain at the back and side of the head then became less severe, but he suffered from acute pain of a darting neuralgic character in the right temple and right eyeball. This pain sometimes all but subsided, and was subject to sudden and violent exacerbations. Three months ago he noticed drooping of the right eye-lid with difficulty in raising it, and inability to open the eye completely. Double vision came on about the same time.

Present Condition.—The right eye is closed and he is quite unable to open it. There is a perfect power over the levator palpebræ on the left side. He can shut firmly the right eye; there is no loss of the general symmetry of the face; and there is no evidence of facial palsy whatever. There is no impairment of sensibility on the right side of the face, or of the conjunctiva, and the fifth nerve is not interfered with in any way. The right pupil is dilated and perfectly insensible to light. The antero-posterior axis of the right eye-ball is directed forwards; he is unable to move the eye inwards, outwards, downwards, or upwards, and the power of rotating the eye-ball on its axis is lost. The muscular apparatus of the left eye is not in any way impaired, and when he looks straight before him the eyes are quite parallel. The focal distance of the right eye is eight inches, and there is complete loss of adaptation for near vision, an object brought within this distance appears hazy and indistinct. The power of adaptation is unimpaired on the left side. When he looks with both eyes at an object about three feet from him he can see it distinctly, but there appears half-overlying it an enlarged and shadowy image of the same object. If the right eye be closed, he sees the object distinctly with the left, but if the left eye be closed he sees the larger hazy image only, which, when he uses both eyes, overlies the distinct image in the manner described.

The ophthalmoscope fails to reveal any morbid change in the right retina, and the crystalline lens is perfectly clear and yields normal results with the catoptric test. When he has looked through a microscope at a test object with the left eye, and the instrument has been adjusted for distinct vision, and then uses the right eye, it is found that the distance between the lens and the object has to be increased to bring the latter into focus. It is then seen, however, as clearly with the right eye as with the left. The mind is unimpaired, the articulation is normal, and there is no trace of paralysis except as stated in the right eye and upper eye-lid.

Dr. Fleming suggested observations on the right eye as to the effects of the calabar bean and of atropia. A small quantity of the extract of calabar bean was placed in the right eye, the diameter of the pupil being then five-sixteenths of an inch. A little smarting was felt immediately in the eye. In about fifteen minutes the pupil began to contract, and in about half an hour the double vision had disappeared, In another hour the right pupil was smaller than the left and insensible to light, and he could then see objects distinctly held three inches from the right eye. Twenty-two hours after the introduction of the calabar bean the double vision returned, although the pupil had not quite regained its usual size. After an hour or two more the pupil had become as widely dilated as before the use of the bean. On another day, a few drops of solution of atropia were placed in the right eye. The effects were a still greater widening of the pupil and more marked amblyopia.

He was ordered to take, thrice daily, a mixture containing iodide of potassium and citrate of iron and quinine, and the calabar bean was introduced into the eye every third or fourth day. In two weeks the pain in the head entirely disappeared and has not since returned. The general health improved, and he soon began to have more power over the levator palpebræ and motores oculi of the right eye.

He was discharged on August 7, 1868, being then able to open the right eye almost completely. He could also move the eye-ball in any direction though the amount of motion was not quite normal in extent. The pupil remained dilated and insensible to light, and the want of adaptation for near vision of the right eye and the amblyopia were still present.

Remarks.—We have here, probably, a tumour of benign nature at the base of the brain pressing on the roots of the three nerves implicated, and causing, in the right eye, dilated pupil, loss of adaptation to near vision, apparent blindness, and impaired movements of the eye-ball. The special sensation of the retina was not affected, and the sensibility of the conjunctiva was normal. At the same focal distance the image seen with the right eye was larger than with the left, hence double vision; but when the adapting power of the right eye was aided by an instrument or by the calabar bean, vision with this eye was as good as with the left, and then vision with both eyes became single. The results obtained with the atropia confirm fully the observations made by Dr. Fleming many years ago, and recorded in his paper "On the Local Action of Atropia on the Eye-ball" in the *Edinburgh Medical Journal* for March 1863.

PROGRESS OF MEDICAL SCIENCE.

MEDICINE.

Internal Strangulation mistaken for Cholera.—Drs. Fournier and Ollivier relate, in the *Gazette Médicale* for August 15th, the case of a man, aged 34, who was admitted into the Hôtel-Dieu in 1867 with symptoms resembling those of cholera. There were general coldness of the surface, clammy sweats, coldness of the breath, small accelerated pulse, much thirst, frequent vomiting of matter like the rice-water discharge of cholera, retraction of the abdomen, with tenderness at the epigastrium, and suppression of urine, and occasional cramps. There was said to have been diarrhœa. The patient died the day after admission. It was found that, three days before admission, he had been suddenly seized with pain in the abdomen, and on the next day with vomiting. On *post mortem* examination, there was found in the right iliac fossa a mass of small intestine, consisting of two separate portions of the ileum, strangulated by a strong fibrous band, which was attached at one end to the rectum and at the other to the cæcum and the brim of the pelvis. The portions of intestine which were not strangulated, and the other organs, were healthy.

Temperature of Paralysed Limbs.—M. Lepine, in a paper read to the Societé de Biologie on the variations of temperature in paralysed limbs relatively to healthy limbs, arrives at the following conclusions. 1. On placing the two limbs, healthy and paralysed, of a hemiplegic patient in certain conditions, identical as regards the two limbs, very marked variations in their relative temperature may be observed. Thus, one may become alternately hotter or colder than the other. 2. In recent hemiplegia, the paralysed limb, which is normally warmer than the healthy one, may become the colder if both limbs are submitted to a certain degree of cold; if this degree be passed, the paralysed limb undergoes less cooling than the healthy one. 3. In hemiplegia of very old standing, with coldness of the paralysed limb, this becomes relatively warmer than the healthy one, when both are submitted to a certain degree of cooling; it remains in general cooler than the healthy limb, if both are then warmed. The temperature of a limb in which the vaso-motor nerves do not perform their functions normally, seems, then, to be not susceptible of such ranges in either direction as that of a sound limb. 4. The thermic variations in the limbs of the two sides may be accounted for in a general manner, by admitting that the vaso-motor action takes place more slowly and less completely on the paralysed side.—*Gaz. Méd. de Paris*, Aug. 29, 1868.

On the Treatment of a large Hydatid Cyst by Injection of Iodine.—Professor Skoda has lately reported a case of large hydatid cyst in the left hypochondrium, which was treated successfully by injecting a solution of iodine. The patient was a man, aged 46 years, who had suffered for some months from constant and severe pain in the region of the spleen. On his admission, a large fluctuating tumour was perceived on the left side of the abdomen, which reached from the upper border of the eighth rib to the crest of the ilium. On October 27th, an exploratory puncture was made, and several ounces of a clear, pale yellow, and serous fluid drawn off. This, when examined under the microscope, was found to contain the hooked processes of echinococci. On November 2nd, another puncture was made into the tumour, and, after the removal of a large quantity of thick reddish discharge, five ounces of the following mixture were injected: tincture of iodine, four ounces; water, one ounce; iodide of potash, one scruple. This injection was allowed to remain for thirteen minutes. In the course of two hours, iodine was discovered in the urine. The patient was subsequently affected with salivation, inflammation of the parotid gland, conjunctivitis, and swelling of the eye-lids. A second injection was made in April of the present year. This, like the former operation, resulted in severe abdominal pain. The patient gradually improved, and at last was discharged, strong, and in perfect health.—*Allgemeine Wiener Medizinische Zeitung*, No. 19, 1868.

SURGERY.

Sulphite of Soda in Syphilis.—Dr. S. J. Radcliffe, of Washington, states, in the *Medical and Surgical Reporter*, that he has been using the sulphites and hyposulphites in syphilis; and that the results obtained have been such as to lead him to record his own experience as far as it has gone, so that others may also make a trial of these remedies. He gave them at first in secondary or tertiary cases; but has more recently also prescribed the sulphites and hyposulphites in primary syphilis, after a slight mercurial treatment, with decided advantage. In the older secondary cases, and those in a transition stage from secondary to tertiary, with local manifestations consecutive to primary chancre, such as phagedænic ulcerations, diseases of the mouth, fauces, and nasal passages, he has found, with the internal and external use of these remedies, the parts healing well and healthily, the cachexia disappearing, the patient more cheerful and hopeful at a very early period; and in the primary cases he has found the primary symptoms reduced in violence, the chancre healing, and the early eruption of the skin much limited in extent, and of shorter duration. He thinks also that the lymphatic glands less frequently enlarge, and suppurate more rarely. In no instance has he failed to receive some advantage. He prefers the sulphite of soda, of which he gives one or two drachms daily in three or four doses, for an indefinite period, or until some change is observed for the better, and according to the progress of the case. Usually, in the course of a week or less, some action is manifested, and the medicine must then be persisted in. Externally, he uses it in simple solution in water, or glycerine and water combined. In ulcerations of the mouth and throat, he directs a simple solution, or as above, as a wash or gargle; and as a wash in syphilitic sycosis it acts with remarkable promptness. Of course, every other direction necessary to keep the system in healthy action must be observed strictly.

Hernia of the Bladder.—Dr. J. Scott, of Parkersburg, West Virginia, relates the following case in the *Medical and Surgical Reporter*. On June 16th, 1868, he was requested to see a mulatto woman, who had been for several years chambermaid on board a steamboat. She had an irreducible hernial tumour on the right side. The patient stated that she had had attacks somewhat similar, on former occasions, which had been successfully reduced by taxis; but this attack resisted every attempt. The symptoms were violent, and she was evidently rapidly sinking. On representing the facts to her, and the family with whom she resided, they at once consented to an operation. The patient having been put under the full anæsthetic effect of chloroform, Dr. Scott made an incision from the top to the base of the tumour, through the skin and areolar tissue. The intervening structures were then carefully divided on a grooved director down to the sac, when, instead of omentum, or colon, or ileum, the displaced fundus vesicæ came in view. It was much distended with urine and gas. A catheter was introduced by the meatus urinarius, and at once showed itself to be within the bladder, but below the stricture, though coming into contact with the finger above the os pubis. The instrument could not be passed to the fundus. If this could have been effected, the urine and gas which had accumulated in the fundus would have been evacuated, the organ would have collapsed, and reduction would have been easily effected; but the resistance was too great. It was necessary, in order to effect the reduction of the tumour, to divide the transversalis fascia, and a few fibres of the transversalis muscle; after which reduction was effected. In a few hours, the gradual accumulation in the fundus dilated the stricture, and the urine passed off freely by the natural channel. The lips of the wound were brought together and secured by four sutures; and the whole secured by adhesive straps and bandages. Union by the first intention took place nearly throughout its whole extent.

Results of Disease of both Hip-joints: Successful Operation.—At a meeting of the Imperial and Royal Academy of Medicine in Vienna on July 10th, Dr. Tuschak showed a young man, aged 19, who had had inflammation of both hip-joints at the age of 3. In consequence, the head of the left femur was dislocated under the os pubis, and the right thigh was bent to a right angle with the body, and fixed by ankylosis. The patient came last year under the care of Dr. Salzer. In spite of the long duration of the dislocation on the left side, reduction was effected without extraordinary difficulty. On the right side, it was found necessary to perform resection of the joint, which was done in October. The removal of the head of the bone was not sufficient to enable the limb to be extended; it was necessary to saw off a portion of the trochanter. The patient recovered, with a limb shortened to the extent of about a *centimètre;* and was able to walk with a stick.—*Wiener Medizin Wochenschr.*, July 22nd.

Diagnosis of Diseases of the Eyes by Chromatoscopy.—According to M. Galezowski, a defect in the faculty of distinguishing colours—which has for some time been known as a congenital affection—is produced by some diseases. He has arrived at the following results. 1. In apoplexy of the retina, the power of distinguishing colours is not impaired unless the effusions be very extensive, or occupy the central parts of the retina. 2. In albuminuric retinitis, partial colour-blindness exists only when the affection has reached an advanced stage, and has invaded the macula. 3. In the diabetic retina, there is disturbance of the power of distinguishing colours. 4. In syphilitic retinitis and neuritis, with or without choroiditis, there is very appreciable disturbance of vision as regards green, and often red. 5. Atrophy of the choroid produces colour-blindness only when there is disorganisation of the layer contiguous to the retina, especially in the region of the macula. 6. In atrophy of the papilla, from the commencement, there is loss of the chromatoscopic power, especially for red and green. 7. The same thing occurs in alcoholic amblyopia; but with this difference, that, in atrophy, the defect is permanent, while, in the latter case, it varies from day to day.—*L'Union Médicale.*

REVIEWS AND NOTICES.

Calendar of the Royal College of Surgeons of England. London: Taylor and Francis. 1868.

In continuation of our analysis of this interesting work, and in the hope that some of the suggestions made in the British Medical Journal last week may be adopted in future editions, and thus render unto Cæsar the things that are Cæsar's, we may point out that no less than ten members of the Council are Fellows of the Royal Society; viz., Mr. Quain (the President), Messrs. Solly (Vice-President), Mackmurdo, Hilton, Sir William Fergusson, Bart., Busk, Curling, James Paget, Simon, and Humphry. In the Court of Examiners, the number is still more remarkable. The recognised metropolitan hospitals, taking them in numerical order, are represented by Messrs. South, Mackmurdo, *Solly, Clark, and Simon, *for St. Thomas's;* Messrs. *Hilton, *Cock, and Birkett, *for Guy's:* Messrs. Paget and Holden *for St. Bartholomew's;* Messrs. *Lane and Spencer Smith *for St. Mary's;* Messrs. *Adams and Curling *for the London;* *Mr. Quain *for University College;* *Sir William Fergusson, Bart., *for King's College;* Mr. Hancock *for Charing Cross;* and Mr. Hewett *for St. George's.* The only hospitals not at present represented are the Westminster and Middlesex. In this list, those gentlemen with an asterisk are members of the Court of Examiners. As Members of Parliament, we have Messrs. Clement, Brady, and Vanderbyl; and in the next session of Parliament, it is to be hoped, this number will be considerably augmented. In the list of Fellows will be found a Minister Plenipotentiary in Sir Rutherford Alcock, a Lord Bishop in Dr. F. T. McDougal, and several Magistrates. Amongst the surviving Fellows and Members of the College who have carried off prizes, we find that Mr. Swan obtained two Collegial-triennial and two Jacksonian Prizes. Mr. Coote is the only other collegial-triennial prize-essayist. Of those who have carried off the Jacksonian Prizes, and now surviving, we find Messrs. W. Adams, Sir R. Alcock (two prizes), Annandale, Bird, Birkett, Callaway, Clay, Crisp (two prizes), Crompton, Curling, De Méric, Downing, Gaskell, Griffith, Heath, Hodgson, Hulke, Edwin Lee, Henry Lee, Mackenzie, Middlemore, Poland, Johnson Smith, Swain, Sir Henry Thompson (two prizes), and John Wood. Of the present members of the Council, Mr. South is the only one who has twice filled the President's Chair.

In concluding our notice of the *College Calendar*, it is only due to the gentleman now filling the President's Chair to state that we have been informed, on good authority, that the suggestions for these great improvements on the old list of members emanated from Mr. Quain.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 10th, 1868.

Owing *to pressure of matter, and in order to avoid mutilating the Report of the Proceedings of the Health Section of the Social Science Association, we defer printing it until our next issue, which will contain a full account of the Papers and Discussions.*

ALCOHOL IN DISEASE.

In the last report of the medical officer of the Privy Council, the results of some experiments by Drs. Thudichum and Dupré are given, by which some light is thrown on the action of alcohol on the system. For many years men have argued the question, Is alcohol food or physic? Few, however, have sought to answer it by actual experiment and observation. Lallemand, Perrin, and Duroy were the first to show that some alcohol passed from the body unchanged, and that it was not altogether burned up when taken into the body; but they contented themselves with examining the urine only, and they made no very accurate experiments with regard to the actual quantity excreted.

Dr. Dupré made the following experiment:—Six young men consumed 255 fluid ounces of red Bordeaux wine, containing 11,018 grains of absolute alcohol. The observation commenced at one o'clock P.M., and within an hour and a-half, during which the men were engaged in sports and gymnastic exercises four-fifths of the wine had been taken. All were more or less affected; two very strongly. Their urine was collected till 5 P.M., and found to amount to 216 fluid ounces. It was four times distilled with the usual precautions. The final distillate amounted to three ounces. Ninety-one grains of absolute alcohol were obtained from this distillate; in other words, for every 121.8 grains of alcohol taken one grain was reobtained from the urine.

Dr. Thudichum has repeated these observations in several cases, and found alcohol in the urine when a sufficient quantity has been taken; a man was given ten ounces of Rhine wine, containing one ounce of absolute alcohol by measure; in an hour a small quantity was obtained by distillation, but in two hours more no trace was found; altogether about one-tenth of a grain of alcohol was recovered, or less than one four-thousandth of the quantity taken. Normal urine, when tested, gives no reaction for alcohol unless some has been previously taken. One-tenth of a grain of alcohol added to two ounces of urine, and then distilled, gives a distinct green colour when mixed with dichromate of potash and sulphuric acid, owing to the formation of the green oxide of chromium. Dr. Thudichum calls attention to the fact that when we drink Greek wines, which contain a great quantity of aldehyde, some of it passes into the urine, and, by giving a similar reaction, introduces a source of fallacy.

These experiments are of practical importance when we come to study the administration of alcohol in acute febrile disorders, or in any form of disease. A quantity of alcohol which would kill an ordinary man may be given in a case of fever without the patient experiencing any apparent disadvantage. Yet the question that presents itself is this: What are the data on which we can rely in the administration of alcohol, and what signs have we that the patient is benefited by its use? It is of no use for a medical man to "throw in brandy," as the expression is, and point to the way in which the patient tolerates it as showing the efficacy of his treatment. Such is a mere empirical method, and although in the present state of our therapeutical knowledge we must too often blindly follow where others have led the way, without knowing the why or the wherefore; yet we ought to welcome any method which substitutes for our looser practice a treatment which has some scientific foundation in its favour. It is very often a difficult point for the physician to decide as to the amount of alcohol that should be given, nor are men at all agreed on the point. If given in too large doses it is apt to oppress the patient, to cause headache, restlessness, and languor, especially when there is any obstruction to the circulation through the lungs, or when the febrile disorder is but slight; on the other hand, no one can deny its value when given in cases where the heart's action is very weak, or when there is great prostration, or where the patient is suffering from a severe form of fever. In a case of typhus fever Dr. Dupré gave the patient six ounces of brandy daily, and sometimes wine in addition. The urine and fæces were examined, and only a small quantity of alcohol was obtained, not more than would have passed had a similar quantity been given to a healthy man; thus nearly all that was taken was consumed in the system.

Still the question remains, Is this quantity beneficially consumed? At present this cannot be answered; but it would be a great advance in our knowledge if it should be hereafter found that when alcohol is present in the urine, or can be obtained from the fæces or perspiration, it is a sign that enough alcohol has been administered, and that the system cannot use up any more. Observation should be directed to the minimum quantity which can be taken by an adult in different diseases, and which will yet be enough to cause a trace of alcohol to appear in the urine. In Dr. Dupré's case the distilled urine gave a trace of alcohol when only six ounces of alcohol were given; but Dr. Todd used to give thirty or forty ounces in twenty-four hours. Could all the alcohol here have been used in the body, or was there much excreted? Of late years much smaller quantities have been given, and with apparently equally good, if not better, results; and we believe that in King's College Hospital the practice is now to treat cases of uncomplicated pneumonia and mild febrile disorders without any stimulant at all. Another guide for us in giving alcohol has been pointed out by Dr. Anstie; he has shown that, in certain conditions of the pulse, when the arterial tension is much diminished, brandy may be of the greatest service.

The thermometer is another useful aid; out of any given number of cases a certain quantity die; if temperature charts are recorded of the two classes, the curves will be found to vary; and, as a general rule, the higher the temperature the more fatal the case. In many, where the curve is not very high, recovery will take place without any stimulant whatever, and thus we can avoid oppressing our patient with too much alcohol. It has been found that alcohol, when taken in large quantities, before it produces collapse and intoxication, lowers the temperature of the body one or two degrees, but this is not always the case in fevers. In a case of tertian ague, kept on the expectant treatment for three weeks, the fits came on with great regularity, and the temperature rose to precisely the same height every time; brandy was given a little before the attack, and administered freely till its height, when the patient was quite intoxicated, but the pyrexial state went through the same changes as before, both as regards the height of the curve and the duration of its ascent. With regard to the question of the administration of alcohol in acute disease, we must make use of the thermometer and sphygmograph, and of such chemical experiments as we have now briefly mentioned; nearly all are agreed as to the great value of stimulants; few have any standards on which they can rely. At present very little is known that can enable us to solve this much vexed question, but some light has been thrown on the subject of late, and we hope that further researches will be made on this point. In both health and disease, at least, in civilised countries, where there is much wear and tear of life, alcohol is of undoubted benefit; as Dr. Thudichum says: "Alcohol, when we have worked and are fatigued, is a great restorative and stimulant and food, and one of the greatest necessities of human life; and perhaps there has been no time and no nation in which some kind of alcohol has not been used, and mostly in the largest number of cases beneficially. If we do not exaggerate the quantity which we introduce into our stomach, we shall never have reason to fear that our kidneys will be damaged by that quantity of alcohol which will pass through them and be excreted."

TREATMENT OF THE APPARENTLY DROWNED.

THE past summer will be long remembered by the present generation in the British Isles as the most extraordinary within their recollection; for, what with the long continuance of almost the heat of the tropics and the drought of the African desert, Old England has for awhile scarcely seemed like herself. Amongst the phenomena which have been the perhaps natural consequence, every one must have observed the very numerous deaths from drowning as compared with those which have occurred in ordinary seasons. This has arisen from the unusually large number of persons who have been tempted to bathe from the extraordinary heat of the season, whilst the number of those who could swim has not been above the average. In the current number of the *Journal* of the National Lifeboat Institution, are interesting papers on the rescue of drowning persons, and the restoration of the apparently drowned; from the latter paper we make the following extract, which we trust will receive everywhere the prompt and earnest attention of medical men:—

> "There is one point to which we think it most important that attention should be drawn in the replies in the two cases above quoted, viz., that involved in the answer to Query 12* in each case; and we think it the more important, inasmuch as that the two codes of instructions now prominently before the public, and each largely circulated, viz., those issued by the National Life-boat Institution and those promulgated by the Royal Humane Society, are divergent on that point: we allude to the discharge of fluid from the mouth at intervals, and which is often continued for a long time after the body has been taken out of the water.
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> "Other striking cases have come to the knowledge of the National Life-boat Institution where such has been the case, and notably that recorded in No. 55 of this *Journal* for January 1865, when Dr. Trollope of Hastings found Dr. Silvester's system for promoting respiration utterly futile, until, by placing his patient in the prone position, or face downwards, the latter was relieved, at intervals, of the large quantity of water which he had swallowed whilst immersed.
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> "It is at this moment, we believe, an unsettled point with medical men as to what extent, if any, water finds access to the lungs in cases of drowning; but that to some extent it does so we think there is little doubt. There can, however, be no doubt that the pressure on the diaphragm of large quantities of water in the stomach impedes the action of both the heart and lungs, and must consequently greatly obstruct and often entirely prevent the recovery of drowned persons.
>
> "We desire, therefore, earnestly to implore the very serious consideration of the Royal Humane Society and of all medical men to what we believe to be a very serious, indeed fatal, defect in any and every system of treatment of the apparently drowned which takes no steps to promote the discharge of the water which has been swallowed during immersion.
>
> "Successful treatment, in the interest of humanity, must be equally the paramount object of one and all of us; and we cannot but feel it to be a grave evil that two Codes of Instructions, differing on so important a point, should thus be placed in the hands of the public for practical use."

As many as 1,127 persons died from snake-bite in Oude last year.

THE Lord Bishop of Hereford will preach a sermon at St. Mary's Church, Nottingham, on Thursday, October 22nd, the day appointed for the eighty-sixth anniversary of the General Hospital, Nottingham, and in aid of its funds.

AN effort is being made to erect a memorial to the medical men who died during the fever epidemic at Greenock a few years ago. A meeting has been held at the Town Council Chambers, Provost Grieve in the Chair; and a Subcommittee appointed to collect subscriptions.

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* Two interesting recent cases of successful treatment of the apparently drowned, according to the rules of the Institution, which are based upon those of Drs. Marshall Hall and Silvester. The query was: "Was much fluid discharged from the mouth, and at what intervals?

Mr. Sampson Gamgee removed this week, at Birmingham, the entire tongue by incisions differing from those hitherto employed by British surgeons for the purpose. The patient is reported to be doing well.

DEATHS IN GAOL.

Two deaths have occurred within one week in Morpeth Gaol, in both cases from diarrhœa and dysentery. The verdicts of the juries have been "Death from natural causes"; but it will behove the authorities to ascertain how far they are also preventable causes.

SWITZERLAND THE HOME OF CRETINISM.

A careful census has been recently taken, of which the object has been to estimate the amount of cretinism in the valleys and mountains of Switzerland. In the nineteen cantons, there were found 3,431 cases of cretinism, and 6,258 cases of insanity; and, as the population of the country amounts to 2,032,119 inhabitants, it follows that these 10,058 persons of weak mind give the enormous proportion of one mentally diseased person in 202 inhabitants; and even this is believed to be below the truth.

THE NEW METHOD OF WATER-ANALYSIS.

The ammonia-method of water-analysis brought out by Wanklyn, Chapman, and Smith, and which has been frequently referred to in this Journal, is attracting considerable attention abroad. In Holland, it is being taken up by the Faculty of Medicine; and Mulder, the well-known Dutch chemist, whose researches on the protein compounds are chemical classics, has been commissioned to report upon it for the Government. In different parts of Germany, it is highly appreciated, and is coming into use.

POISONOUS SOCKS.

We have received the following interesting note on Arsenic in Aniline-Colours from Professor Wanklyn, of the London Institution. It indicates clearly enough the source of skin-poisoning in magenta-coloured socks.

"It is generally known that some of the old crude magenta cake and liquor which was in the market some few years ago, shortly after the first bringing out of the dye, was largely contaminated with arsenic. But it is not generally known, even to chemists, that much of the beautifully crystallised magenta used to consist of arseniate of roseine, being not, properly speaking, contaminated with arsenic, but actually consisting of an arsenical compound. In the early part of 1863 (assisted by Mr. Robinson, who was my assistant at that time), I made an examination of the beautifully crystallised magenta which was being manufactured in one of the largest coal-tar colour works in Europe, and found it to be arseniate of roseine, apparently chemically pure. The following is a comparison between the calculated numbers for pure arseniate of roseine and those actually found on making a combustion.

$C^{20}H^{19}N^{3}$, $AsO^{3}H$.

	Theory.		Found.
C^{20}	240	56.47	56.56
H^{20}	20	4.70	4.91
N^{3}	42		
As	75		
O^{3}	48		
	425	100.00	

"Both the nitrogen and the arsenic were determined; and, though the numbers given were not by any means accurate, were still quite near enough to confirm the formula, $C^{20}H^{19}N^{3}$, $AsO^{3}H$.

"Since 1863, there have been great changes in the mode of purifying magenta; and I hardly think that this pure arseniate of roseine would be found largely to-day. Still it would be rash to assert that this kind of magenta has entirely disappeared from the market. But, be this as it may, there is reason to fear that most of the magenta, and also all those common blues and violets which are made from it, are more or less contaminated with arsenic. To mend the matter, it is not generally known to chemists, but is nevertheless quite true, that the mere detection of arsenic in aniline colours is not always easy—even when large quantities of arsenic are present; the aniline colours having the property of masking the presence of arsenic to a very great extent."

CLINICAL MEETINGS FOR HOSPITAL OFFICERS.

The medical officers of the Metropolitan Free Hospital will commence, during the October session, a series of clinical meetings, at which they will exhibit cases of interest, and read papers concerning them. The idea is a good one, and worthy of imitation, since such meetings are likely not only to bring into notice many cases of importance, but to promote also much good feeling among the medical officers of hospitals.

THE OUTBREAK OF FEVER NEAR LIVERPOOL.

The fever which has been prevailing in the neighbourhood of Liverpool, and to which we called attention last week, is, we hear, showing some symptoms of abatement; and doubtless, if the present change of the atmosphere progress to a still cooler temperature, the epidemic will cease, and the fever cases will be reduced to the number which is usually to be found amongst the inhabitants located around that large and important seaport town. From inquiries which we have made, we gather that a very small, if any, portion of Liverpool itself has been visited with fever on the present occasion, the outbreak having been confined principally to some neighbouring townships outside the boundaries of the Liverpool authorities, Liverpool itself having apparently escaped. The number of cases, as far as we have been able to ascertain, will, we think, amount to about six hundred, with the number of deaths betweeen thirty and forty. The fever has been principally typhoid, though we believe that there have been one or two cases of typhus and a few of scarlet fever in addition. We believe, from inquiries which we have made, that the present epidemic will be found to owe its origin to defective drainage, to the bad state of some of the water of the harbour, and the discharge of sewage on the seashore, which, at low water, is all exposed; this, together with the heat of the passing summer, which has caused the exposed sewage to give off noxious gases, that have been blown over the land by the westerly wind. These are the causes which, we believe, will be found to have produced the present outbreak. But, as the Government have sent down Dr. Thorne to report upon it, his report will doubtless give all the particulars.

THE NEW WING AT UNIVERSITY COLLEGE.

The accommodation at University College having become too limited for the increased number of students, it was thought advisable to raise funds towards building some portion of the south wing, in accordance with the original design. Accordingly, a voluntary subscription-list was set on foot, and a considerable but insufficient sum speedily collected. The building was, however, commenced in July last, and will be opened for use towards the end of the year. It will contain fourteen class-rooms, and will be set apart for the use of the School, and thereby gain for the use of the College the rooms which the School at present occupies. By this means, also, the boys of the School will be separated from the students of the College. The total cost will be about £7,000, of which £5,000 have already been collected. When funds permit, the whole wing will be completed.

IMPROVEMENTS AT ST. GEORGE'S HOSPITAL.

An electrical room, attached to the out-patient department, is being fitted up at this hospital. A Stöhrer's machine, and a powerful battery of one hundred cells, similar to that employed at the Paralytic Hospital, Queen Square, have been furnished, besides other apparatus for carrying out the study of electro-therapeutics. A room has been also set apart, with three beds, for examining female patients suffering from chest, uterine, or other complaints, seeking admission, or attending as out-patients. A nurse will be in attendance in this ward throughout the day. The old lecture-room is, we believe, to be fitted up as a complete Turkish bath. On the top floor, in the rear of the hospital, apartments are being built for the lady-superintendent of nurses appointed to carry out the new system of nursing which was lately introduced at the Middlesex Hospital, and which has received the approval of, and been adopted by, the Governors of St. George's.

ANNIVERSARY OF THE SALISBURY INFIRMARY.

THE one hundred and second anniversary of this institution was celebrated on September 24th, in the usual manner. The Mayor, aldermen, and members of the Town Council, in their robes, attended by mace-bearers and the city police, went in procession to the cathedral, accompanied by Viscount Folkestone, President of the Infirmary, some of the governors and subscribers, and a number of male and female patients. An excellent sermon was preached by the Rev. Preb. Fraser, from Luke vi, part of the 19th verse, "There went virtue out of Him, and healed them all." A collection in aid of the funds of the hospital was made after the service. The annual meeting of the subscribers was afterwards held in the council-chamber.

THE VACCINATION QUESTION.

A PERSON of the name of Gibbs has, we observe, been lately holding forth against vaccination at Brighton; one Thomas Stowell, a newly fledged graduate, presiding on the occasion. The usual absurdities and show of utter ignorance of everything connected with the question were paraded before the meeting. It is not necessary for us to reiterate what has been so often said in answer to their mischievous doctrines. Dr. Joseph Stephens, a public vaccinator for four years, has been at the trouble, to answer at some length, in the *Brighton Times* of September 26th, the arguments and contradict the statements brought forward at the meeting. The question, in our mind, is whether ignorant men should be allowed to poison the mind of the public on a subject of such enormous importance, especially when we consider the difficulty already existing in carrying out the Vaccination Act.

THE CRIMOND COTTAGE HOSPITAL.

WE lately received the first yearly Report of a hospital which deserves to receive more attention than has hitherto been bestowed upon it. We refer to the Crimond Cottage Hospital for Infectious Diseases, which is, we believe, the first hospital of the kind in this country. It was opened chiefly for the admission of farm-servants and others labouring under infectious diseases. Situated as it is in a neighbourhood which has suffered severely for several years from diphtheria and typhoid fever, the hospital has since its commencement been the means of preventing infection by isolating those already affected, and thus saved an incalculable amount of misery. Under the very able superintendence of Dr. Bruce, it bids fair, if we may judge from the Report, to do much towards diminishing the ravages of infectious diseases in and around Crimond. It was built almost entirely at the expense of Sir Alexander and Lady Bannerman, and is supported chiefly by voluntary subscriptions. The managers intend, however, to make a small weekly charge to those able to afford it. We trust that ere long the good example of Crimond will be followed throughout the country, wherever the necessity exists.

THE CHIEF PROMOTER OF THE NEW PHARMACY ACT.

ON Wednesday evening, an influential meeting of chemists and druggists was held in the rooms of the Pharmaceutical Society, for the purpose of giving effect to the following resolutions, passed at a sitting of the British Pharmaceutical Conference, at the recent annual gathering at Norwich.

"That the cordial thanks of this Conference and the whole profession are due, and are hereby tendered, to the President of the Pharmaceutical Society, and those who have laboured with him, for those exertions in the cause of Pharmaceutical Education which have resulted in the Pharmacy Act of 1868."

"That it is desirable there should be some public recognition of the services rendered to the cause of Pharmaceutical Education, and the improvement of the status of the profession, by Mr. George Webb Sandford, President of the Pharmaceutical Society, to whose careful and constant devotion the passing of the Pharmacy Act of 1868 is in great measure due."

With the view of carrying out these resolutions, a Committee was appointed, of which the following are some of the members. Mr. F. Barron (chairman); Mr. B. Orridge (treasurer); Messrs. Carteighe, Mackay, and Matthews (secretaries); Professors Redwood, Bentley, and Attfield; Drs. Fox and Spurrell; Messrs. Morson, Betty, Brady, Brough, Hanbury, Pass, Hill, Deane, Flux, Bird, Bourdas, Williams, Waugh, Ince, Vizer, Reynolds, Haselden, Bremridge, Bottle, Howden, Watson, Cox, Constance, Carter, Warner, Bartlett, Gulliver, Lord, Barnes, Wright, Buckle, Shepherd, Pedler, Randall, Tibbs, Squire, Francis, Commans, D'Aubney, Savage, Herring, Umney, Groves, Dymond, Stoddart, Earle, Proctor, and Robbins. Some conversation ensued as to the form which the testimonial should take; but the definite consideration of this point was postponed till the next meeting of the Committee. It seems to be not unlikely that, together with the presentation of a portrait, a bust, or a service of plate, a Sandford Students' Hall or Collegiate Establishment, similar to those attached to some medical schools, will be proposed to be founded.

THE SEWAGE QUESTION IN GLASGOW.

AT a recent meeting of the Medico-Chirurgical Society of Glasgow, Dr. Fergus read a paper of much interest, on the Present State of the Sewage of Glasgow. He spoke of the failure of the scheme of Messrs. Bateman and Bazalgette, to which we alluded in a previous number; and stated the system would result in an enormous escape of sewer-gas at each heavy shower, as it depended greatly on the impounding capabilities of the sewers, which, as the water filled, would expel the gas with a force which no trap could resist. He condemned the folly of erecting works capable of conveying 110,000,000 of gallons per day to the Ayrshire coast; and showed that, when it arrived there, the matter would have lost some of its most valuable manurial ingredients. He expressed the opinion that water-closets were contrary to nature and revelation, and that the only satisfactory mode of dealing with our sanitary difficulties was to keep all excreta out of the sewers and river; and that we would never be right till we had abolished water-closets, and adopted as our motto the *dictum* of Mr. F. O. Ward—"The excreta to the soil, and the rain-fall to the river." He appears to be favourable to the adoption of Moule's earth system; but the difficulty in the way of supply and removal would be enormous.

INDIAN MEDICAL NEWS.

OF the European troops composing the force under General Wilde, we regret to learn that two regiments, the 6th and 38th, have suffered severely from heat-apoplexy on their way up to Hazara. Six or seven fatal cases have occurred in each.—A severe outbreak of cholera is reported in Calcutta, which is attributed to pollution of the drinking-water.

ADDITIONS TO CHARING CROSS HOSPITAL.

AMONG other considerable improvements which have recently been carried out at this hospital, four new wards have been opened, capable of containing altogether about thirty beds. The old library, and the room above, looking into Agar Street, will contain each eight or nine beds; and on either side of the operating-room, which has been slightly enlarged, a ward has been opened, one for males, and the other for females, and set apart specially for cases of operation. That for females was previously used as a children's ward. Another children's ward, previously a servants' dormitory, has been, however, opened on the same floor.

THE NEW WING OF THE HOSPITAL FOR WOMEN, SOHO SQUARE.

A LARGE wing has been added to this hospital. In addition to eleven wards, the wing contains a large sitting-room for convalescent patients on the first floor; a board-room; rooms for the house-surgeon; a bath-room; two lifts, one for food, and the other for the patients; a very handsome operating-theatre; a dead and *post mortem* house and small museum; a complete department for out-patients; and a laundry, fitted up with steam machinery. The number of beds will be about forty. The wards are small, but cheerful and well ventilated. Although almost completed, it will probably not be opened for use until early next year.

LAYING THE FOUNDATION STONE OF THE GLASGOW UNIVERSITY.

His Royal Highness the Prince of Wales, accompanied by the Princess of Wales, visited Glasgow on Thursday, and laid the foundation stone of the new buildings of the University of Glasgow.

OPENING OF THE WINTER SESSION OF THE PHARMACEUTICAL SOCIETY.

On Wednesday evening, the session in connexion with the Pharmaceutical Society was opened, and the prizes were distributed to the various students in the presence of a large number of ladies and gentlemen. The inaugural address was delivered by Mr. Henry B. Brady, F.L.S., F.G.S.

NEW ALLOA HOSPITAL.

This institution, intended both as a fever and general hospital, has been opened. It is a very neat and commodious building, and situated in a fine locality.

ST. BARTHOLOMEW'S HOSPITAL.

The surgeons and assistant-surgeons at St. Bartholomew's Hospital meet every Thursday afternoon, in the presence of the students, to consult as to the propriety of operating or not in the more obscure and serious cases—a plan which, we think, is likely to result in great benefit to the surgeons, students, and patients.

OPERATIONS DURING THE WEEK.

As is usually the case, the opening week of the Winter Session has been an important one as regards operations. We give a list of those performed at a few of the hospitals. University College—Removal of scirrhus of the breast, and opening abscess of thigh, under carbolic acid, by Mr. Erichsen; lithotrity, two cases, and lithotomy, Sir Henry Thompson. Middlesex Hospital—Amputation of the leg and removal of scirrhus of the breast, Mr. De Morgan; amputation at the hip-joint, Mr. Nunn; and removal of necrosis of lower jaw, Mr. Hulke. King's College Hospital—Removal of malignant mammary tumour and fibroid tumours in joint of either patella, Mr. Wood; lithotomy in the female (stone weighed six ounces), Mr. Smith.

THE FOREIGN DIPLOMA-MARKET.

The diploma-market seems to have shifted from the northern town in which it found a temporary seat to Brighton. The following appears in a daily paper this week.

"*Diplomas.*—Wanted, immediately, Three Doctors' Diplomas for foreign countries. Address, stating particulars, cost, etc., to T., 23, Grand Parade, Brighton."

DISINFECTANTS AND DEODORISERS.

M. Verstrael, in a paper read before the Academy of Sciences, of which the *Chemical News* gives an abstract, proposes to attain the conditions required of disinfectants by the following processes:—1. To decompose the sulphide and carbonates of ammonium, the chlorides are employed, either of iron, zinc, or preferably manganese. Sulphates are absolutely proscribed, for the reason that the putrefying matters react on the sulphate of ammonia formed by double decomposition, the final result being the evolution of sulphuretted hydrogen, so that after a little time it is necessary to disinfect a second time. The chloride of manganese proposed as a disinfectant would be obtained from the chlorine residues of manufactories, a product which is stated to be valueless. The residues contain too much hydrochloric acid to be immediately available; the acid is neutralised either by the oxides of iron or zinc, or by dolomite. By this saturation of hydrochloric acid with lime and magnesia, the value of the product as a manure is greatly enhanced. Experiments on a large scale showed the product to be very rich in nitrogen and in phosphoric acid, and the fluid after this treatment was found to contain no phosphoric acid. Manganese, as well as magnesia, has been demonstrated by the recent works of M. Peligot to be easily assimilated by plants. To render the action of the chloride of manganese still more efficacious, 5 *litres* of chloride of lime solution of 12° are added to 100 *litres* of the manganese solution. 2. Notwithstanding the value of the disinfectant thus prepared, metallic salts by themselves can effect no complete and permanent disinfection; no influence will be exerted upon the offensive odour, *sui generis*, of the refuse matter. The antiseptic agent introduced for this purpose is tar solidified by admixture of cinders, deprived of sulphurous compounds by exposure to the air for fifteen or eighteen months. In this mixture are contained a considerable quantity of sulphate of alumina, 15 or 20 per cent of finely divided carbon, 50 or 60 per cent of nitrogen and protosulphate of iron and silica in small quantity. In the place of the solidified tar, the heavy oil of tar residues has been employed with equal success. Lastly, to clarify refuse water, a solution of impure sulphate of alumina, employed in the dose of a *kilogramme* per cubic *mètre*, has been found to give very remarkable results; this solution serves to clarify the liquid and to cause the deposition of the solid matter. A cesspool of 20 cubic *mètres* in Rue des Jeuneurs was treated with 650 *kilogrammes* of manganese and 30 *kilogrammes* of chloride of lime liquid, then 180 *kilogrammes* of the aluminous powder with tar. After the liquid had been agitated and allowed half-an-hour's rest, it was clear and inodorous. The sanitary inspectors and other critics who witnessed the experiment, testified that the matters were completely disinfected. After the liquid had been poured off into the sewer, the atmosphere of the receptacle was tested by the lowering of a light, after which two workmen descended, who found no other odour than a slight one of benzol.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

The programme of this Association for the Session 1868-9 includes the following meetings:—1868: Saturday, Oct. 17th; Saturday, Nov. 21st; Saturday, Dec. 19th. 1869: Wednesday, Jan. 6th; Saturday, Jan. 16th; Saturday, Feb. 20th; Saturday, March 20th; Wednesday, April 7th; Saturday, April 17th; Saturday, May 15th; Wednesday, July 7th (meeting for election of officers). The Saturday meetings are held at 7.30 P.M.; the Wednesday meetings at 4 P.M. The Secretaries have the pleasure of announcing that, during the ensuing session, papers will be contributed by Dr. Gavin Milroy, entitled "Suggestions respecting the Medical Topography of the Metropolis;" by Dr. B. W. Richardson, F.R.S., entitled "Further Observations on the Poisons of the Spreading Diseases;" by Dr. W. A. Guy, F.R.S., "On Indiscriminate Almsgiving as a Cause of Disease and Crime;" by Dr. R. Angus Smith, F.R.S., "On the Air of London;" by Dr. Letheby, "On the Real and Imaginary Significance of the Expression '*Previous Sewage Contamination*', now used by the Registrar-General in his Monthly Return of the Metropolitan Waters;" and by Dr. Odling, F.R.S., "On the Combustion of Gas in Houses."

THE TESTIMONIAL TO MR. HECKSTALL SMITH.

It will be seen that, at the last meeting of the South-Eastern Branch, an unanimous resolution was passed expressing a high appreciation of the sacrifices made by Mr. T. Heckstall Smith in defending the action for libel recently brought against him, recording their deep sense of his high public spirit and of his unselfish and unflinching perseverance on that occasion, and resolving that "a subscription be set on foot for the purpose of presenting a testimonial to Mr. T. Heckstall Smith, as a lasting record of the esteem and regard in which he is held by his friends, and of their approval of the manner in which he has upheld the honour of his profession under trying circumstances." Mr. John M. Burton of Blackheath was appointed Treasurer and Secretary to the Testimonial Fund, and a goodly list of subscribers was at once announced. We call attention to this resolution, because we believe that the conduct of Mr. Heckstall Smith on this, as on all occasions, has been marked by a chivalrous spirit which does honour to himself and to his profession. He has refused to allow any movement to be set on foot for indemnifying him for his expenses; and this makes it only the more imperative on all who value a high tone of professional feeling to mark their sense of his dignified and courageous defence of a great principle.

THE NOMENCLATURE OF DISEASES.

II.

In carrying out the work which the Nomenclature Committee had entrusted to them, it was necessary, of course, for them not only to name diseases, but also to classify them. "A good classification" (says Sir Thos. Watson, in the Preface) "aids and simplifies the registration of diseases; helps towards a more easy comparison and knowledge of them, and towards the storing of experience respecting them; and facilitates the discovery of general principles from the collected, grouped, and compared phenomena." But classification of diseases is a very difficult, and it may be added a very thankless, task. No one can have set to work to frame such a classification without finding his progress impeded by ever-recurring difficulties; and no one, we venture to say, can have risen from its completion, we will not say proud of his work, but even moderately satified with it. Few, if any, have laboured at this subject with more earnestness and ability than Dr. Farr; and it cannot be denied that his scheme of classification, which has been in use for some years past for the registration of deaths, presents many elements of convenience and excellence, and has fairly well answered the purposes for which it was framed. But it is certain that almost all practical medical men object to it in many of its features; and that it is, in some respects, misleading and erroneous. The Committee could not, therefore, have adopted the Registrar-General's classification; but they so far went with him that they resolved, almost at the commencement of their labours, "that the proposed classification of diseases should be based upon anatomical considerations"; and, accordingly, they divided diseases, as has been previously pointed out, into two primary divisions; viz., "General Diseases" and "Local Diseases".

But what are "General Diseases", and what are "Local Diseases"? Sir T. Watson says: "General diseases are such as affect the whole frame rather than any special part of it. Local diseases are such as occupy special parts of the body." Generally speaking, of course, that definition is correct—at all events, it is sufficient. And, in accordance with it, every one would readily admit that the exanthemata are truly general diseases, while stricture of the urethra (the Registrar-General notwithstanding), inguinal hernia, and fibrous tumour of the uterus, with many others, are essentially local. But how about cancer, tubercle, inflammations, lardaceous, fibroid, and other degenerations? how about syphilis? how, again, about malformations, parasitic diseases, and some others? In each of these cases, there are manifestly inherent difficulties with regard to their exclusive classification, either among general or among local diseases. Syphilis, when first contracted, is obviously a local disease, and may, in certain cases, never become more than a local disease; but secondary syphilis and inherited syphilis are as obviously constitutional affections, even though their manifestations may in certain cases be localised in a single tissue. Again, although pathologists, on good grounds, now regard cancerous and tubercular diseases as being essentially constitutional, it is difficult to many persons to admit the propriety, or even the convenience, of dissociating (say) pulmonary consumption from local diseases of the lungs, or cancer of the liver from other diseases of which that organ is the seat. We need not, however, pursue the difficulties of this subject; for we have drawn attention to them, not for the purpose of criticism, but simply that we may shew how, while fully recognising them, the Committee have dealt with them. They have, in fact, solved them (as we believe the majority of scientific medical men would, in the present state of our knowledge, wish to see them solved) by placing cancer, tubercle, and syphilis, together with all their local manifestations, among General Diseases; and inflammations, degenerations, malformations, and parasitic affections, under the headings of the various organs which they may affect.

It would be absurd to pretend—the Committee, indeed, would doubtless not claim for themselves—that they have been either altogether consistent or altogether successful in carrying out the details of their plan of classification. It is obvious that, in many cases where there must have been a doubt as to the position which a disease should occupy, its final position in the Nomenclature has been determined by considerations of convenience; and, indeed, that generally, where logic and convenience have been in antagonism, the claims of convenience have been deferred to.

This deference to convenience is manifest even in the subdivision of General Diseases into Sections A and B, rather than into sections distinguished by names; and in the circumstances which have rendered the use of such names almost, if not absolutely, impossible. Thus, Section A, which is intended specially to include the exanthemata and certain other diseases which are contagious or tend to spread epidemically, includes together with these affections, Ague and its varieties, Glanders, Farcy and Grease, Malignant Pustule, Phagedæna, and Hospital Gangrene, as also Erysipelas, Pyæmia, and Puerperal Fever; and Section B, under which so-called constitutional diseases (such as Gout, Syphilis, Cancer, Scrofula) are arranged, comprises also Rheumatism, certain Skin-diseases (viz., Rodent Ulcer, Lupus, and True Leprosy), together with Cretinism, Diabetes, Purpura, Scurvy, Anæmia, Chlorosis, General Dropsy, and Beri-beri. Now it would surely be difficult, in regard to some, at least, of the diseases just enumerated, to establish a perfectly satistory scientific claim for their holding those places in the Nomenclature in which we find them. All that could be reasonably urged, we suspect, is that, in an arbitrary system of classification, purposely made as simple and uncomplicated as possible, the weight of argument (though, perhaps, by the slightest appreciable difference) seemed to the Committee in favour of each doubtful disease occupying the position finally selected for it, rather than some other position that might have been selected.

It may be here noted, that Section A embraces most of those diseases which the Registrar-General terms "Miasmatic", and one of those which belong to his "Enthetic Order"; and that Section B comprises, together with the greater part of his "Diathetic" and "Tubercular" orders of disease, a few of the diseases which are placed by him in his "Miasmatic", "Enthetic", and "Dietic" orders. It may be added that the orders which have just been named constitute his "Zymotic" and "Constitutional" classes of diseases.

It is important, further, to note that, although Sections A and B comprise between them most of the diseases which constitute the Zymotic and Constitutional classes of the Registrar-General, there are several important diseases which he has placed in those classes which find no place in Sections A and B. Thus, of his Zymotic Diseases, Quinsy, Croup, Carbuncle, Dysentery, Diarrhœa, Stricture of the Urethra, Hydrophobia, Thrush and Worms, are all, in the Nomenclature, transferred to "Local Diseases"; Alcoholism (including Delirium Tremens) goes to "Poisons"; and Privation to "Injuries".

In regard to one of these affections, it should, however, be added that apparent difference of arrangement is connected with some modification of nomenclature. Diarrhœa is made a Local Disease; but this departure from the Registrar-General's arrangement is accompanied by the introduction, in Section A, of Simple Cholera, which is intended to include the so-called Zymotic form of Diarrhœa. We need scarcely add, that Malignant Cholera stands in the Nomenclature as a distinct affection.

It is, perhaps, worth while to quote here at length the Registrar-General's classes of Zymotic, Constitutional, and Developmental Diseases, in order that we may show at a glance how the diseases constituting them have been re-shuffled in the newer nomenclature.

EXTRACT FROM REGISTRAR-GENERAL'S CLASSIFICATION.	PLACES WHICH DISEASES IN THE ADJOINING COLUMN OCCUPY IN THE "NOMENCLATURE OF DISEASES."	
CLASS I.—*Zymotic Diseases. Order* 1: *Miasmatic Diseases.*		
1. Small-pox	General Diseases,	Section A.
2. Measles	Ditto	Ditto
3. Scarlatina	Ditto	Ditto
4. Diphtheria	Ditto	Ditto
5. Quinsy	Local Diseases.	
6. Croup	Ditto	
7. Whooping-cough	General Diseases,	Section A.
8. Typhus	Ditto	Ditto
9. Erysipelas	Ditto	Ditto
10. Metria	Ditto	Ditto
11. Carbuncle	Local Diseases.	
12. Influenza	General Diseases,	Section A.
13. Dysentery	Local Diseases.	
14. Diarrhœa	Ditto	
15. Cholera	General Diseases,	Section A.
16. Ague	Ditto	Ditto
17. Remittent Fever	Ditto	Ditto
18. Rheumatism	Ditto	Section B.
19. Other Zymotic Diseases.		
Order 2: *Enthetic Diseases.*		
1. Syphilis	General Diseases,	Section A.
2. Stricture of Urethra	Local Diseases.	
3. Hydrophobia	Ditto	
4. Glanders	General Diseases,	Section A.

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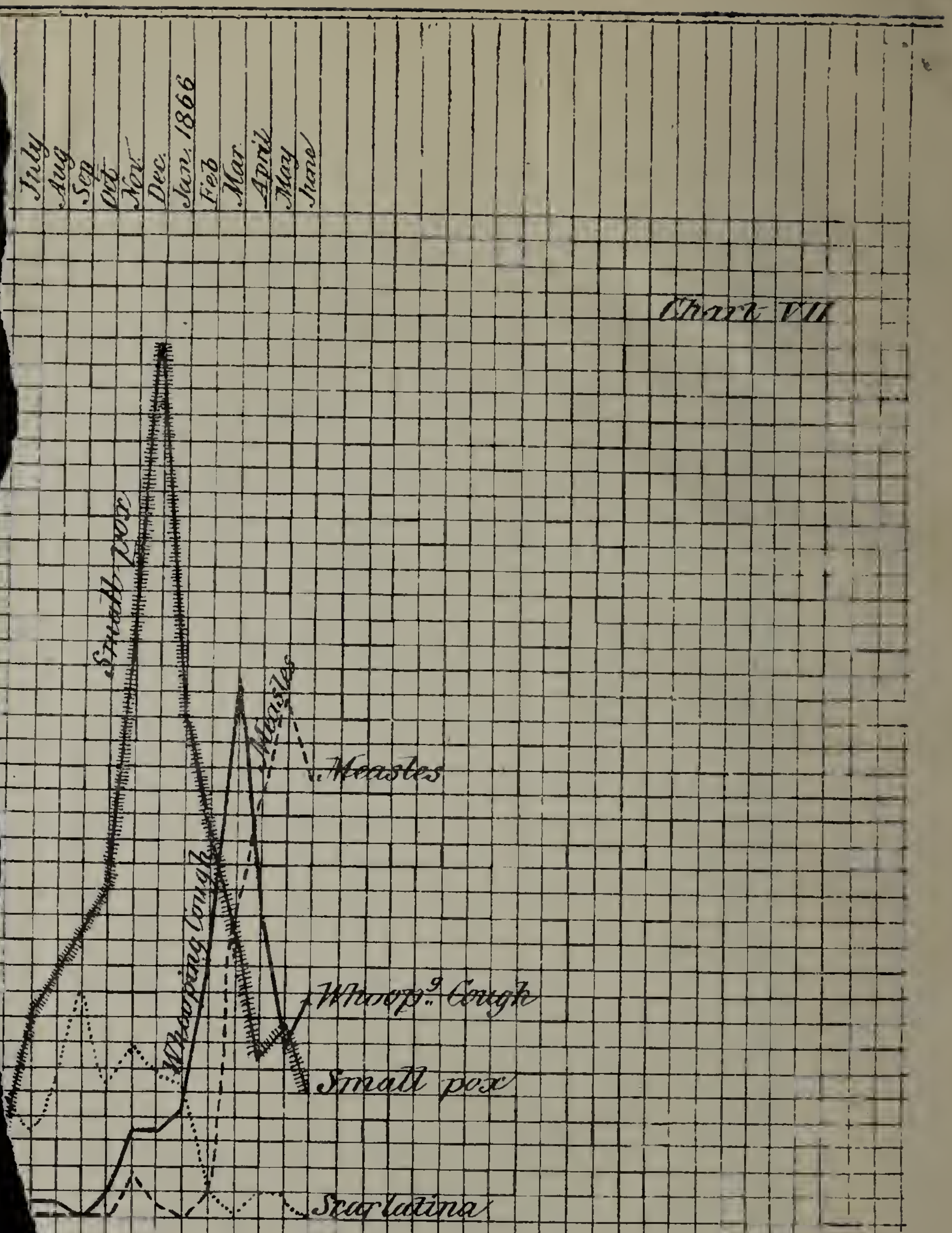
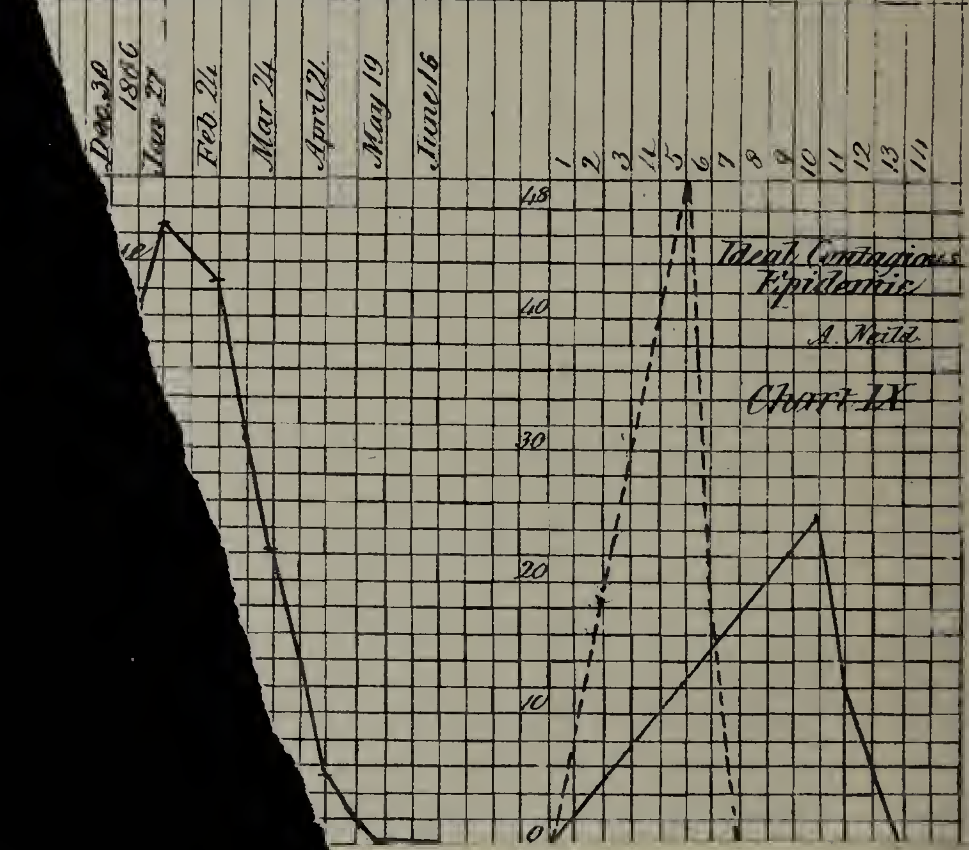

July
Aug
Sep
Oct
Nov
Dec
Jan 1866
Feb
Mar
April
May
June
Chart VII
Small pox
Measles
Measles
Whooping Cough
Whoop^g Cough
Small pox
Scarlatina


Dec 30
1866
Jan 27
Feb 24
Mar 24
April 21
May 19
June 16
1
2
3
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9
10
11
12
13
14
48
40
30
20
10
0
Ideal Contagious Epidemic
A. Neild
Chart IX

Order 3: *Dietic Diseases.*

1.	Privation	Injuries.
2.	Want of Breast-milk	Ditto
3.	Purpura and Scurvy	General Diseases, Section B.
4.	Alcoholism	Poisons.

Order 4: *Parasitic Diseases.*

1.	Thrush	Local Diseases.
2.	Worms, etc.	Ditto

CLASS II.—*Constitutional Diseases.*

Order 1: *Diathetic Diseases.*

1.	Gout	General Diseases, Section B.
2.	Dropsy	Ditto Ditto
3.	Cancer	Ditto Ditto
4.	Noma	Local Diseases.
5.	Mortification	General Diseases, Section A, and Local Diseases.

Order 2: *Tubercular Diseases.*

1.	Scrofula	General Diseases, Section B.
2.	Tabes Mesenterica	Ditto Ditto
3.	Phthisis	Ditto Ditto
4.	Hydrocephalus	Ditto Ditto

CLASS IV.—*Developmental Diseases.*

Order 1: *Congenital Malformations and Developmental Diseases of Children.*

1.	Premature Birth	Conditions not Necessarily Associated with General or Local Diseases.
2.	Cyanosis	Local Diseases.
3.	Spina Bifida	Ditto
4.	Other Malformations	Ditto
5.	Teething	Ditto

Order 2: *Developmental Diseases, Adults.*

1.	Paramenia	Local Diseases.
2.	Child-birth	Ditto

Order 3: *Developmental Diseases, Old People.*

1.	Old Age	Conditions not Necessarily Associated with General or Local Diseases.

Order 4: *Diseases of Nutrition.*

1.	Atrophy and Debility	Ditto

Although the grouping of Local Diseases follows, in some of its main features, the grouping adopted by the Registrar-General in his third class, the nomenclature of local diseases differs so utterly in its details in the two cases that it is impossible to make any useful comparison between them; and, indeed, it would be unfair to draw any invidious contrast. The one comprises 47 named maladies; the other upwards of 800! This startling difference is, of course, in a very high degree, due to the different objects with which the two systems of nomenclature were constructed: the one having been specially designed for common use in the registration of deaths; the other having been devised in part, of course, to answer the same purpose, but also, and above all, for the accurate registration of diseases and of deaths by scientific men, for scientific purposes. Now, with the latter object in view, it was, of course, essential, not only that names should be carefully selected, but that all morbid conditions, the most trivial as well as the most severe, should be named.

The very large number of Local Diseases, which have thus had to be dealt with, has necessarily led to the multiplication of groups of diseases, and to the subdivision of groups into numerous smaller groups or subgroups. The mode in which this has been done is best shown by the table of contents, where it will be seen that, in the great majority of cases, the subgroups represent the diseases of individual organs or tissues. Thus, we find—to quote an example or two—"Diseases of the Respiratory System" arranged in the following manner:—

Diseases of the Respiratory System, not strictly local.
Disease of the Nostrils.
Diseases of the Larynx.
,, ,, Trachea and Bronchi.
,, ,, Lung.
,, ,, Pleura.
,, ,, Mediastinum.
,, ,, Bronchial Glands.

And, again, we find under "Diseases of the Nervous System",

Diseases of the Brain and its Membranes.
,, ,, Spinal Cord and its Membranes.
,, ,, Nerves.
Functional Diseases of the Nervous System.
Disorders of the Intellect.

And similarly, or with only slight modifications, in regard to other groups.

But, further, even in the arrangement of diseases under each subgroup, a certain order has, as far as possible, been maintained; and the Committee have taken care to show what that order is by printing it as a kind of preface to Local Diseases. It is worth while to quote this preface entire, as it stands on pages 29 and 31.

"*Arrangement of Local Diseases.*

"The diseases printed in italics are to be returned, not among the Local Diseases, but under the headings referred to by number.

"The Local Diseases have been drawn up in accordance with the following arrangement:—

Catarrh
Inflammation
Ulcerative inflammation
Suppurative inflammation
Plastic inflammation
(11) *Pyæmic inflammation*
Rheumatic inflammation
Gouty inflammation
(43^1) *Syphilitic inflammation*
(49^1) *Scrofulous inflammation*
Gonorrhœal inflammation
Gangrene
Passive congestion
Extravasation of blood, Hæmorrhage
Dropsy
Fibrinous deposit
Alteration of dimensions:
  Dilatation
  Contraction
  Hypertrophy
  Atrophy
Degeneration
  Fatty and calcareous. *Syn.*, Atheroma, Ossification
  Fibroid
Lardaceous disease. *Syn.*, Amyloid disease, Waxy disease
(43^1) *Syphilitic disease*
(44^1) *Cancer*
(45^1) *Colloid*
Non-malignant tumours
Cyst
(49^1) *Scrofula*
(49*a*) A. *With tubercle*
(49*b*) B. *Without tubercle*
Parasitic disease
Calculus and concretion
Malformation
(992, etc.) *Injury*
(1014, etc.) *Foreign body*
Functional diseases."

It is obvious, from what precedes, that considerable care has been taken in the arrangement of Local Diseases, even to the minutest details of arrangement. But it is almost equally obvious that the arrangement is far from perfect, and is open to adverse criticism. But into whatever errors of this kind the Committee have fallen, it is pretty clear that they have fallen into them with their eyes open, and have not endeavoured to deceive others any more than they have deceived themselves. The errors, in fact—if errors they are to be called—are almost all of them due to the circumstance already pointed out; namely, that, in the details of their classification, they have rather consulted convenience than let themselves be fettered by system. Thus, to go back a little, we find, amongst their groups of diseases, a group entitled "Diseases of the Absorbent System"; but from that group are excluded both Diseases of the Bronchial Glands and Diseases of the Mesenteric Glands, the former being placed among "Diseases of the Respiratory System", the latter among "Diseases of the Digestive Organs"; and, again, there is a group of "Diseases of the Ductless Glands", which comprises Diseases of the Thyroid, Thymus, and Suprarenal Bodies, but omits Diseases of the Spleen. Now, every one can see that, logically, Diseases of the Bronchial and Mesenteric Glands should have been placed among "Diseases of the Absorbent System", and that Splenic Diseases should have been placed among "Diseases of the Ductless Glands"; but few will fail to acknowledge that there would have been great practical inconvenience in an arrangement which severed Diseases of the Bronchial Glands from those of the Lungs, and Diseases of the Mesenteric Glands and Spleen from those of the Digestive Organs. And thus, again, in the "Arrangement of Local Diseases" above given; whether (to take the very first item) Catarrh should have preceded Inflammation, or whether, indeed, it should have been made a separate heading from Inflammation, is, to say the least, questionable; but there is no doubt that, practically, we look upon Catarrh of the Respiratory Organs as being a different thing from Laryngitis, Tracheitis, or Bronchitis, and that, generally speaking, it is convenient to distinguish simple Catarrh of mucous surfaces from inflammatory affections of the same parts. And, evidently, it is from this point of view that the Committee have regarded the question.

On the whole, it may be said, that the classification which has been adopted by the Committee is in no sense pretentious, and is altogether free from striking novelties; and that it is to be regarded as a very carefully arranged compromise, which promises to be convenient and sufficient and generally acceptable, and thus to fulfil those objects, the fulfilment of which its authors have manifestly, as practical men, chiefly endeavoured to secure.

ABSTRACTS OF
INTRODUCTORY ADDRESSES
DELIVERED AT
THE METROPOLITAN AND PROVINCIAL SCHOOLS,
On OCTOBER 1*st*, 1868.

THE QUEEN'S COLLEGE, BIRMINGHAM.

LORD LYTTELTON delivered the Inaugural Address. He said that for about sixteen years he was connected with the management of the College, for much the greater part of the time as its Principal. During that time its fortunes were strange and eventful. He became intimately acquainted, in the course of it, with some of the most remarkable men he had ever known, and if the garrulous gossip of recollection were what they were assembled to listen to, he might perhaps draw on such a fund with a result more entertaining than profitable or edifying. He would not dwell on the circumstances under which he left the College in 1856. He could speak very imperfectly of the history of the College since that time. One general statement he could not but make, not only from his own knowledge, but on a very high authority, and it was one which he was sure no one, however friendly to the College, would dispute, that in many important respects the voluminous annals of human mismanagement had no more signal example than was to be found in the history of the former days of that institution. The College, under its present constitution, he believed, would supply a practical demand. The townspeople seemed desirous to give the new management a fair trial, and he had confidence that the result would be successful. He congratulated the meeting on the easy accomplishment of what had been so often thought of—the amalgamation of the College with Sydenham College. The Noble Lord then referred to a paper of Dr. Rumsey's, and read extracts therefrom. The Noble Lord was unwilling to believe that the system under which the surgeons were empowered and accredited to act was a seriously faulty one; but in his capacity as a member of the Schools Enquiry Commission, he had heard evidence from men of the highest eminence in the profession which threw some light upon the matter of students' education. (The speaker read portions of the evidence of two witnesses.) It was with a view to aid students that that institution was first formed, that the medical students might receive in full measure the humane, the moral, the disciplinary, the social, the religious benefits of the ancient system of English collegiate education. And if education were of moment to every class of life, it was pre-eminently so to the medical class. Where were the men for whom they would wish, more than for the medical men, a lofty tone of character, the true dignity of their profession, a pious and consistent walk, a spirit of large observation, a sobriety of judgment, a knowledge of things new and old, and all those qualities which they believed were given by a sound and Christian education. For himself, he could not express more strongly than he felt the social importance of a high standard of character, as well as attainments, being set and maintained by the medical profession. Few people passed through life without having need to feel the kindness of the family physician. But as to those, in the hours of anxiety, of agony, in the slow wasting consumption, the ungoverned delirium, the unrest and the sleeplessness of pain, in the crisis of hope and of fear, in the perilous accident, turning in a second the placidity of age and the merriment of childhood into a tumult of trepidation and the haggardness of suspense, to whom did they look, whose footsteps were watched for? Let them not forget in whose hands really were the issues of life and death, of sickness and of health, and let them not lay too much to the charge of the medical man. In conclusion, the Noble Lord wished all success to the institution under its new organisation.

QUEEN'S HOSPITAL MEDICAL SCHOOL, BIRMINGHAM.

THE Inaugural Address was delivered by Mr. J. F. WEST.

After a few preliminary remarks, Mr. West said:—In addressing you, gentlemen, who for the first time are assembled as students here, I experience feelings of pleasurable interest, not unmixed with some anxiety, for you in your future career. I feel that to-day you are entering on the practical study of a profession which, if followed honestly and conscientiously, is the most honourable, useful, and God-like of all professions; but, on the other hand, that on the quantity and quality of the information we are able to give, and you are willing to receive, will depend the health and happiness of those who will hereafter be entrusted to your care. I hope you will not come here simply, as the popular phrase goes, "To walk the Hospital." The merely casual attendance of clinical lectures, or sauntering through the wards in conversation with some of your fellow students, will ill-fit you for the practice of your profession. Such conduct is discouraging to those who are endeavouring to impart the riches of their experience and the ripeness of their judgment to you, and is inconsiderate to those whose sufferings have made them inmates of this noble charity, and who feel keenly, sometimes morbidly, any apparent indifference on the part of those who are visiting the wards. Your object in attending the practice of this hospital, and listening to the clinical instruction therein given, is to witness the various diseases, whose course and history have been related to you by the lecturers on medicine and surgery at the Queen's College, and to notice the effect of such modes of treatment, and such operative procedures as may be adopted by the physicians and surgeons respectively for the relief of the patients who are afflicted with such diseases. Now, gentlemen, you have three, or perhaps at the most, four years given you to learn an art, whose bounds are never reached, and to whose service men of the highest abilities continually are devoting their lives, who find at last that they are only on the threshold of knowledge, and are compelled to admit with the Persian philosopher, that "the little they know is nothing, what they do not know is immense." How, then, can you, with most profit to yourselves, occupy these three or four years? I recommend you first, to attend the practice of the surgeons; the education of the eye is more easily effected than that of the mind; not that the surgeon does not require an equal grasp of mind, and as much reasoning power, as the physician, but because, as a rule, surgical diseases and accidents are more directly under the visual observation than medical diseases, and therefore it is less difficult for you to become acquainted with them. With the surgeons you will learn how to observe external symptoms and signs. By the diligent use of the first winter and summer sessions you will have rendered yourselves competent for the office of dresser. I hope to see the day when every student shall be compelled to produce evidence of his having held a dressership and clinical clerkship before he can apply for his diploma. In the second summer and third winter sessions I would urge all of you to devote yourselves to the physicians' wards. The habit of observation which you will have acquired will there stand you in good stead. Diseases of internal organs—the diagnosis of which depends on the cultivation of the senses of touch and of hearing, as well as of sight—will now be brought under your notice. You will be made familiar with the stethoscope, the microscope, the use of chemical re-agents, and the other processes and instruments employed in examining the various internal organs of the body. Whether attending medical or surgical practice, cultivate the habit of noting down the facts which are mentioned by the physicians and surgeons in their clinical lectures, in elucidation of the cases then in the wards, and acquire the practice of taking cases for yourselves, both medical and surgical. *Litera scripta manet.* You must not, however, be satisfied with watching the sick in the wards of the hospital; you must follow to the dead-house the bodies of those whose diseases prove fatal. That which was before obscure will now be made plain; why such a remedy did not produce its wonted effect, or why a certain disease, which the surgeon thought he had thoroughly extirpated, has proved fatal, will now be made manifest. We all learn more from our failures than from our successes; therefore always investigate to the fullest extent those cases which terminate unfavourably; they will serve as landmarks for the future, and will help to guide you in determining the nature of any similar case which may hereafter occur to you, and lead you to the determination of a mode of treatment founded on an exact knowledge of the real nature and true site of the disease. Here, as in the wards, your note-book should ever be in use. You must not be content with observing what is pointed out to you by others; you must investigate for yourselves, and must put down at once an account of what you have observed. I would urge you not to be too fond of running after surgical operations; scientific surgery does not consist alone in operative dexterity and rapidity, or in the expeditious use of outward appliances. Extensive knowledge of pathology and of the practice both of medicine and surgery are of more paramount importance to him whose aim is to save limbs, than the mere display of manipulative dexterity in removing them. Having thus during two years and a half devoted yourselves to practical medicine and surgery, you will be in a position to compete for those appointments which the wisdom and large-hearted liberality of the committee of this hospital have thrown open to you free of all charge. I allude to the resident appointments, two in number, each tenable for six months, and which are filled up every half-year after a competitive examination, to which all are eligible who have filled the office of surgeon's dresser, and physician's clerk. It is not merely the pecuniary value of these appointments, though this to some students who are not overburdened with this world's goods may be an object of consideration, which constitutes their real importance; but it is the opportunity which they afford to you of living within the walls of the hospital, and seeing all that goes on within them; of witnessing the hourly, even momentary changes, which take place in the condition of the patients under your notice; of becoming, as it were, imbued in your persons with the spirit of benevolence which pervades the Hospital, and of acquiring the readiness and willingness which its very existence inculcates; to receive and attend at any time to the wants of any poor sufferer who seeks admission at its doors, without question of class or creed; lastly, it gives that coolness under difficulties and promptness in action which are alike necessary in the practice of your profession, especially in the performance of surgical operations. Let none of you be satisfied that he has achieved all the good he can from this institution until he has held one of these appointments. Even though the rewards are few, and all of you who deserve may not obtain them, still "the virtue lies in the struggle, not the prize."

NEWCASTLE-UPON-TYNE SCHOOL OF MEDICINE.

THE Inaugural Address was delivered by Dr. GIBSON.

After a few excellent preliminary remarks, the lecturer said:—Medicine as a science and as an art, admits of, and is commonly subjected to, three grand divisions—viz., those of medicine proper, surgery and midwifery, the last mentioned being made to include the diseases of women. And it is but a truism to say that no one of these divisions is greater than another. No man can be a scientific and good practical surgeon without being a scientific and good practical physician. Nor is it possible for a man to be a scientific and good practical obstetrist without at once being a good physician and a good surgeon. And the courses of study usually pursued at medical educational institutions are fairly calculated to meet the requirements of each. These studies are first directed to the consideration of structures, then to that of functions; thence they are directed to the modification of these consequent upon disease and accident, and finally to the means calculated to prevent or remove disease or perverted actions. The acquisition of knowledge is a thing of all time and of all periods of life, but it is especially—almost exclusively—the business of youth, as the employment of it is the duty of adult and mature age; and it is now decreed in this country—and the degree is expressive of its pre-eminence in civilisation among the countries of the world—that no student of medicine shall be recognised as such until he has displayed a fair classical, mathematical, and general knowledge. First, endeavour to get a good general idea of the subjects of your study, then proceed to acquire critical power, and finally use your best efforts to gain new facts and ideas, so that you shall be in a condition to teach beyond written knowledge. The mind is the standard of the man, and self-education is the manifestation and a consequence of individual superiority. The facts must, to a great extent, be gathered by every man for himself, in order that they shall be available in the highest degree. Medicine, as a science and as an art, is not characterised by the utmost exactitude, as we have seen. There is space within for erratic speculation or practice, and poor diseased humanity must often suffer accordingly. A skilful physician cannot be made *per saltum*, and the credulous world loves a bold innovator. The great desideratum of the medical practitioner is experience—experience with scientific data—extensive knowledge of facts, with clear appreciation of the principles which well out of them. And this brings me to remark that no well-ordered, healthy mind can be satisfied with mere facts. They are indeed necessary in every step of the progress of practical medicine, and must be obtained by hard sustained loyal work; but the facts must receive some application—there must be somewhat of philosophy evoked, and the calibre of the individual must be very small in whom some attempts at generalisation do not take place. Hasty generalisation is highly objectionable, and mere hypotheses do not safely admit of the execution of important or necessary work; but upon legitimate deductions from well ascertained facts—upon correctly established principles the noblest minds will proceed. Theoretical medicine is the expression of philosophical inquiry, and the practical medicine which is engrafted upon it, is probably competent to the greatest good which society can receive from the hands of the physician. Our ancestors have handed down much experimental knowledge, much knowledge of an abstract character, which can be referred to nothing but observation; experience and the knowledge of the action of medicines is often in our day of an empirical character, utterly beyond the recognition of any principle, and may not admit of philosophical explanation. The physician's business, too, is frequently only to understand Nature's working and her aims, and to help her in her struggles at release from disease. He gives her time, and he procures her rest. He soothes and he urges as circumstances require, and when diseases have been vanquished, he yet recognises the transcendant importance of the natural effort, and, very frequently, the comparatively humble and subsidiary character of his own. The influence and the work of a physician as a State agent in the prevention of disease is of very great importance. The community of physicians may be recognised as such agents. Their whole course of study is so directed and carried out that State medicine becomes step by step ameliorated by the discovery and promulgation of every new fact in physiology, pathology, and therapeutics. Much has been accomplished, as the health of our largest towns especially bear witness. It is where hygiene has failed that the work of the therapeutist begins; and the efforts of the wisest and most energetic philanthropists demand, for their success, that they shall be supported by the intelligence, good-will, and ready and sustained action of the communities in which they live.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

THE Introductory Address was delivered by Dr. F. T. ROBERTS.

The lecturer, after giving a welcome to the new students, and alluding to various matters connected with the school, said:—I would first ask you to examine with me what motives have prompted you to enter the medical profession, and see whether they be of the right kind; for it appears to me that proper views on this point at the very outset are of the greatest importance. There is no doubt that many join our ranks, just as they would enter upon any other vocation, with the sole object of trying to gain wealth, having no thought or intention beyond this; and possibly such may be the feeling of some of you here to-day. Now the desire to obtain a competency in this, as in other callings, is, in my opinion, perfectly legitimate and just; nor, judging from observation, does it seem to be such a difficult task as some appear to imagine: indeed many, in the strictly honourable performance of their duty, manage to acquire by no means small fortunes. The general law is, that fortune only comes with labour, and our case certainly forms no exception. Now I think it my duty to observe, that there is a danger sometimes lest we should forget what we owe to ourselves with regard to money matters. Many of the public seem to imagine that all kinds of gratuitous work may with perfect justice be demanded from us, not only for those among the poorer classes, but also for those occupying respectable positions—and it is well to be careful lest, by doing too much in that way, we should encourage such an idea, and thus be unjust to ourselves. But, I fear me, the converse of this is far more often the case, and is a source of much greater evil. The desire for wealth forms the ruling passion, and stifles down even the slightest tendency towards a good action. If this is the only, nay indeed the chief, aim in any man's life, it will be but a miserable thing; but it is especially out of place in the medical profession, as it will prevent its possessor from performing any of those good deeds which ought to be inseparable from it, while it will lead him to the commission of acts which bring marked discredit upon us as a body. The evils which the inordinate craving for wealth produces in our profession are, I believe, both many and serious. What but this is at the foundation of some (I by no means say all) of the special hospitals which have been so lavishly established in late years, and has led sometimes to the issuing of so-called "reports," which vie with the elegant compositions that emanate from the vilest quacks, and which cannot fail to arouse a feeling of shame and disgust in the minds of all right minded men? What but this is, alas! but too often the cause of all the backbiting and attempts to undermine the reputation of one professional *brother* by another? What but this is the source of the various species of quackery, which are almost as numerous within the limits of our profession as outside them? What but this is the origin of the mean, low tricks which some practitioners indulge in, trying, as it were, to undersell their competitors, as if they were engaged in the barter of the most paltry articles of merchandise? No, gentlemen, if this be the great end of your existence, I warn you that you have mistaken your occupation, and are on the wrong road. The medical profession is a calling that can give you enough, but it is not one suited to your tastes, which will most likely tend towards actions that will bring anything but credit upon it. It may be that with some of you one of the objects you have in view is to raise yourselves in the social scale. Such an object every man has a perfect right to entertain. But beware of imagining that the mere fact of your becoming a physician or a surgeon will raise you; that must depend on your own behaviour in the future. You are entering a profession, which has that within itself that can raise the very best of men, but it is only as you endeavour by your conduct to elevate it, that it will do the same for you. The desire for fame is a motive power strong in the human mind, and probably this has had an influence with some of you in urging you upon the course you are now taking. If so, it is deserving of all encouragement, and there is no path in life which gives greater hope of gratifying it than that you have chosen. But even if you do not possess the requisite talent for discovery, there is still quite sufficient in the mere honourable practice of your profession, to enable you to create names for yourselves, that shall remain long after you have passed away. It sometimes happens that the mere love of, or inclination for, the medical profession, or some of the sciences connected with it, is the cause of its being selected. Where such an inclination exists, I believe it is to a certain extent an earnest of future success; and therefore, I trust, gentlemen, that you all possess it, to some degree at all events, for you will then be more likely to make progress than if you had no sympathy with or had a decided antipathy to it; indeed when there is such an antipathy, I doubt whether success can ever be gained. The motives I have hitherto alluded to, are all more or less of a selfish nature, but it would be folly to expect that any of us have yet attained to such a degree of self-abnegation as wholly to lose sight of them; still we must not forget that there are other and higher motives, in which we look away from ourselves, and fix our attention upon those to whom we shall hereafter be called to minister. Upon the medical man devolves the duty of caring for others, no matter to what rank they belong, in almost every circumstance of difficulty, trial, or distress. It is he who has often to give advice in their daily wants, to minister to them in their infirmities, and to sympathise in their trials and afflictions; to his lot it falls to instruct them as to the proper regulation of their minds and bodies, as well as of surrounding conditions, with the view of maintaining them in a state of health and comfort; with him the power frequently lies, of driving away the pangs of pain, and he is the instrument chosen to raise the sufferer from the bed of sickness, or perhaps snatch him from the very grasp of death. The lecturer then endeavoured to impress upon his hearers the grave nature of the work before them in preparing for their profession, and warned them against wasting their precious moments in idleness or vice. He cautioned them against the mistake that the obtaining degrees or diplomas was the great end of the student's life, and urged them, in preparing for their examinations, not to rely upon a final "cram" but to work steadily from the first. He then proceeded to ask, by what means then is the instruction to be obtained, which will not only enable you to pass your examinations with credit, but will also fit you for the fulfilment of those important duties which lie before you in the future? In the first place, there is the theoretical teaching to be derived from lectures and reading, to which examinations and demonstrations form a valuable addition and aid. It has been the fashion of late with many members of our profession, and some too holding prominent positions, to look almost with contempt upon anything that bears the name of "theoretical teaching," and I am sure that this is often productive of much evil. There are plenty of students who want but the merest excuse for neglecting their work, and this they find in the derogatory remarks which issue from certain high authorities with regard to "lectures and reading." My own experience among students has been, that those who make most noise in favour of what they call "practical instruction," are generally those who manage to elude all instruction whatsoever; it is with them a kind of apology for laziness and waste of time and opportunity. On the other hand, it will be found as a rule—and I can confidently appeal to our experience here in support of this—that those students who pay most attention to theory, as evidenced by their success at the competitive examinations, are those who also prove themselves the best men practically. My own deeply-felt conviction is that theoretical teaching is as necessary as practical in its proper place; that in some cases it ought to precede it in time, while in others they should go hand in hand. Surely we cannot afford to despise the labours of past and present workers, and scorning their assistance, seek to gain anew for ourselves the valuable information we can derive from them! It would be mere folly to endeavour again to lay the foundation of past discoveries, as we should really be doing, were we to neglect to avail ourselves of the aids to be derived from reading. No, let us thankfully receive what those who have gone before can give us, and then, if we are able, add something to their store of information, for the benefit of future generations. After what I have already said, it will be scarcely necessary to add much in favour of reading—without it, it will not be possible to make much advance; and it is important to practise it regularly and steadily from the first, and not merely in a rush from time to time, or at the finish; by so doing you will gradually ground yourselves in principles, and lay up a store of knowledge which will cling to you, and which you will be able to apply hereafter to some practical purpose. Do not imagine that because I have said so much in favour of theoretical acquirement, I therefore undervalue practical instruction. By no means. Without this all theory will have been learnt in vain. Through every stage of your career as a student, practical work will demand your most earnest attention. The dissecting-room will claim your regular presence, and when there, be not content, as is the case with too many, with merely observing the results of the labours of others, but work diligently for yourselves. It is only by so doing that you can hope to gain such an acquaintance with the constitution of the human body, as will cling to you in after life. It is also very important to obtain a fair knowledge of chemistry practically, as it has now become almost absolutely necessary for pursuing practice properly and scientifically. A practical acquaintance with the use of the microscope is at the present day indispensable, and it is with much pleasure that I allude to the valuable assistance afforded by Dr. Banks in that department during the last winter session, to whom we have all great reason to be thankful for his valuable gratuitous services. When you have advanced to the study of medicine and surgery, I need scarcely say that you must be persevering in your attendance in the wards, and in the investigation of cases at the bed-side, if you desire to render yourselves really "fit and proper" persons to practise your profession. I would strongly urge upon you all the desirability of availing yourselves of those appointments which are offered you, viz:—Dresserships and Clerkships. By these you are not only brought into more intimate relation with the cases, but will enjoy opportunities of doing various things, which you will find of great service hereafter, but which, if now neglected, may never fall to your lot again. I would even stimulate you to aim at a higher post, and to strive to qualify yourselves for the duties of house surgeon at one of the various institutions in this town, for I am convinced there is no office of more importance as a means of instruction, not only by bringing under your immediate notice almost every form of disease, but also being of great value in creating a feeling of confidence, and teaching you to act with promptness and decision, under every combination of circumstances, however difficult and perplexing. After some admirable advice in prosecuting the studies, the lecturer continued, Ere I close, let me impress upon your minds two or three important truths. Remember, first, that not one of you can be standing still—if you do not advance, you will most assuredly be going back—if you do not improve, you must be getting worse. Perhaps there is some-one of you saying to himself, "I will work at some future day, at some more convenient season, and at all events I shall be as well able to do so then as to day." If that is your idea, you will sooner or later be undeceived. If that future day, that convenient season, shall ever come, which every passing hour renders less probable, you will find that you are not under the same conditions then as now, but that, while the amount and difficulties of your labours have been increasing, you have been becoming daily less able to enter upon, and cope with them. Work, then, without delay, and be not satisfied with merely making resolutions for the future, however good they may be, for so surely as you do so, the hours will come with ever-increasing speed, and wipe them out, as easily as words traced on a sandy shore are obliterated by the succeeding waves of an advancing tide, and your task will be left undone. Then, again, bear in mind that the conduct of each one of you affects not only himself, but also influences those with whom you are brought into contact. There is nothing stronger than the force of example. The fact of a man having lived will never cease to be felt by his friends and companions, either for good or evil. When you think that by your individual actions, your fellow-students may be stimulated to rise higher, or be lured from some worthy object, and assisted in a most disastrous descent, what a grave responsibility should rest upon every one of you! And this force of example will react upon yourselves; if on the other hand you encourage labour and lofty aspirations in another, he will in turn do the same with regard to you; while if you clog the efforts of others, you will just be putting another difficulty in your own path. Therefore, never forgetting this mutual action and re-action upon each other, let every one of you, by example, and if necessary by precept, strive to aid the progress of his fellow-students, for by so doing he will undoubtedly be also helping himself onward. Those of you who are to-day taking their first important step in life, let it be upon a road that shall lead to happiness and honour; so that, when the time comes for each one of you to quit these scenes of his early labours, and we give him the parting grasp, he may be able to look back upon the past, with the proud consciousness of having done his duty towards his friends, his teachers, his school, himself: and to glance forward into the future with every prospect of filling with dignity his position as a member of one of the highest professions to which it can be his privilege to belong; of acquiring honour and respect for himself; and faithfully carrying out those gracious purposes, which are the glory of our vocation, of being a messenger of mercy, and a dispenser of noblest and most welcome blessings in the midst of a suffering humanity.

ST. GEORGE'S HOSPITAL.

THE Introductory Address was delivered by Dr. ACLAND.

The lecturer commenced by saying:—In the olden days, men made much of climacteric periods and critical times. As in individuals, so in nations and in institutions, there are climacteric periods—periods in which notable changes take place, often harbingers of future and increasing strength. One of these periods St. George's Hospital has reached. I thank you for permitting me, an old pupil, far removed from your labour and success, to join you once more. I shall be glad if what I presume to say this day may be in accord with the sentiments which friends, teachers, and pupils must naturally feel on this auspicious occasion. There are in this Hospital of St. George characteristics so special that to-day they must not be forgotten. It might have been your glory to have originally administered a great endowment, founded by the wisdom of a monarch, or the generosity of a merchant prince. You might have had the satisfaction of being in the heart of a district where the very surroundings compelled your benevolence. You had no such origin, no such naturally assigned duties. Risen during the last century from the internal disputes of a dispensary board, you were placed "betwixt town and country," without funds, with friends. Your predecessors did the work of their day, as you are doing the work of yours, enlarging, extending, till by the very force of your necessities your walls press on the mansions of the wealthy, and your students now labour where horses trampled before. From your windows the sick, who throng your wards, daily look down on that unparalleled crowd, through which the richest and the fairest are borne by animals, in their world place, as rich and as fair; are jostled by spectators of every degree, from those as wealthy as themselves, to some the misery of whose squalor is as hard to endure as the sickness of your inmates; from the innocent seekers of rest and freshness, to the unhappy and sorrow-bringing candidate for short-lived and evil fame—a suggestive microcosm, from which students at the doors, or patients from their beds, as they look over them all to the historic mansion of the strong and simple duke, may draw many and strange reflections; a scene such as nowhere else they can witness, which centuries of constitutional life alone can produce, and in the midst of which your house is significantly placed. Only let it be added, or the scene is incompletely sketched, that not far from you is the frequent home of Florence Nightingale, not far off was the home of Sidney Herbert, and near, the memory of our Student-Prince. All these associations proclaim to the medical student, to the poor and the sick, that amid that glitter and that throng your work is valued, and their need is known; that through this active sympathy it has come about that this great edifice has steadily grown to its present greatness on such a site—an instance of that of which Montalembert wrote—" 'Supported by Voluntary Subscription:' telle est la fière et noble inscription qu'on lit dans toute l'Angleterre sur la façade de la plupart des hôpitaux, des hospices, des asiles divers de la misère humaine. On comprend bien que ces mots: 'entretenus par les souscriptions voluntaires' impliquent ceux ci: 'gouvernés par l'autorité des souscripteurs.' C'est toujours le même principe: l'effort, le sacrifice personnel et permanent, puis le droit et le pouvoir naissent du sacrifice et de l'effort. Tant que ce principe sera en force et en honneur, l'Angleterre n'aura rien à craindre." Lastly, if the student has difficuties, his lot is not singular, for the teacher has more. The method of medical teaching in England is undergoing revision. Caution is needed lest we root up wheat with the tares. At the beginning of the century the direct instruction in London was very limited in extent. These circumstances made lecturing a profession. There were, fifty years ago, few books, but those few generally of value; now book-making has become a trade. Attending lectures about thirty years since became an intolerable evil, so now reading books and being crammed in books, and examined in books, have become a fashion and a burden, which the combined action of the metropolitan teachers and the Medical Council will, I hope, ere long remove. Whatever these bodies wisely decide will be carried into effect by the Examining Boards. An important point has not yet received sufficient attention, viz., what subjects should be taught at the hospitals. It is likely that no abstract rule universally applicable can be laid down. It might be expected that a hospital would only teach what can be taught on sick people. There is no reason certainly why any portion of preliminary education should be given at a hospital. And had the Government of the country or the existing universities paid timely attention to the needs of the nation, the idea of a hospital being the place for a complete medical school would never have arisen, and the practice would not have existed. A student should enter a hospital prepared to profit by it, and the hospital staff should be the judges of what preparation is desirable, and in what cases that preparation might be dispensed with.

If I may be allowed to express in a few words what has long appeared to me to be the proper theoretical arrangement, I should say thus—1. Institutions are required for preliminary education, general and scientific. Call these Universities, or "General and Scientific Schools." 2. Institutions are required for strictly clinical education. Call these "Hospitals and Clinical Schools." The former, the universities, should both teach and examine in the subjects of general and scientific education, which are agreed upon between themselves and the clinical teachers. From the clinical teachers, that is the hospital staff, should be selected the examiners in the professional subjects. The small hospitals would hereby be utilised for their proper business, clinical teaching, and be relieved from the duty and expense of teaching all departments of physical science. Further, provincial hospitals could be made part of such a scheme. It is quite conceivable that an arrangement might be entered into by metropolitan schools whereby house-surgeoncies, assistant house-surgeoncies, and resident physicianships and dresserships, might be secured throughout the provincial hospitals to the mutual advantage of those hospitals, and the general clinical training of the profession. There is no provincial hospital now which cannot be reached from London in a few hours, and at small expense. Clinical opportunities might thus be greatly enlarged, and the provincial hospital entirely relieved from what many cannot do properly, maintain medical schools in the present sense of the term. The organisation of the scientific schools is not, however, a simple matter. There is a tendency in modern teachers of science to demand of the average medical student an amount of acquirement which is at once unreasonable and unnecessary. A selection of subjects must be made; and, unpalatable as it may be to the democratic spirit, the principle sooner or later will be admitted that all men have not equal ability, that all practitioners can not be perfect in every department, and that a system of pass and of honours is founded in reason and on fact. The Association of the London Medical Teachers will gradually elicit the truths concerning these general principles.

I do not here enter into the important question of Central Examining Boards; but I will only add, that it is just to student, to teachers, and to examiners, that a general consensus should be entered into without delay, as to what is to be learned and how, what is to be taught and how, and how far and by whom examinations are to be held. I have remarked elsewhere that I am at a loss to understand why the examinations in science, in medicine, and in surgery respectively, should not be held at different institutions for a common testamur, not only without inconvenience but with actual convenience and common benefit; adding this proviso, that those who are skilled in the practice of our profession must be allowed to put a veto on the extent of scientific examination required of the pass student. There are excellent observations on this subject in the *Introduction to Medical Literature*, published by one of the ablest men of the century, a physician to this hospital, Dr. Young. The Medical Council, in consenting to postpone, what they would not indeed have been able to enforce, a knowledge of Greek as an absolute requisite preliminary to the recognised professional course of any member of our profession, has acted in the spirit of Dr. Young's sound observations, as to the limitation of our expectations. We must never cease to remember two principles—the first, that the able, well-disciplined, and industrious youths, such as it gives great pleasure to see now-a-days holding dresserships in some of our hospitals, cannot be left too free to pursue their own bent in professional study. They should be unhampered by any regulation save one,—that they should devote a certain number of years to the hospitals before their examination. I am old-fashioned enough to believe that *time* is an essential element in mastering an art. Secondly, that the average pass man must be forced to direct his attention to certain essentials, which must be laid down by well-advised Examining Boards. The principle adopted several years ago, with respect to scientific examinations at Oxford, was based on these two rules,—a pass man in natural science must pass in what is fundamental, in physics, chemistry, and general physiology; the honour student may apply himself to whatever special science he thinks fit, if he has passed in the three fundamental subjects. These simple regulations secure a general competency in the least furnished student, and check the evil in a class of specialists, ignorant of the general relations of even their own department. The Medical Council, as many here are aware, have lately applied to a large number of the principal teachers in the United Kingdom for their opinion as to the requirements of medical education and examination, not only in therapeutical, but in preventive and public medicine. It is to be hoped that a comparison with the attainments and methods of foreign schools will also be obtained. By this agency, information such as has never been collected will be laid before the public. It is sufficient to say that the work is in the hands of Dr. Parkes. The labours of the London Teachers' Association will be lightened by these returns. I cannot name that body without adding that biological thought and progress will be largely influenced by them, and that the address of their President, Dr. Simon, gives full promise that this influence will be all for good.

EDUCATIONAL VACCINATING STATIONS.

The subjoined document has been issued by Mr. Simon, under the direction of the Lords of the Privy Council.

In order to provide for the granting of those special Certificates of Proficiency in Vaccination, which, under the regulations of the Privy Council, are required to be part of the medical qualification for entering into contracts for the performance of public vaccination, or for acting as deputy to a contractor, the following arrangements are made:—1. The Vaccinating Stations, enumerated in the subjoined list, are open, under conditions appointed by the Privy Council, for the purposes of teaching and examination. 2. The Public Vaccinators officiating at these Stations are authorised by the Privy Council to give the required Certificates of Proficiency in Vaccination to persons whom they have sufficiently instructed therein. 3. The Public Vaccinators, whose names in the subjoined list are printed in *italic letters*, are also authorised to give such certificates, after satisfactory examination, to persons whom they have not themselves instructed.

Cities and Towns.	Places used as Educational Vaccinating-Stations.	Public Vaccinators authorised to give Certificates of Proficiency.	Days and Hours of attendance.
London	Principal Station: Surrey Chapel, Blackfriars Road.	*Mr. J. F. Marson.*	Tuesday, Thursday; 1.
—	North-W. Station: 13, Lisson Grove.	Mr. J. G. Gerrans.	Monday, Thursday; 10.
—	West Station: 9, St. George's Road, Pimlico, S.W.	Dr. E. L. Webb.	Monday; 10.
—	East Station: 1, Well Street, Wellclose Square.	Mr. W. J. Lewis.	Tuesday: 9.
—	North Station: Tottenham Court Chapel, Tottenham Court Road.	Mr. W. E. G. Pearse.	Monday, Wednesday; 1.
—	South-W. Station: 46, Marsham Street, Westminster.	Mr. W. E. G. Pearse.	Monday, Thursday; 10.
Birmingham	General Dispensary.	*Mr. P. F. J. Kenny.*	Monday; 10.
Bristol	The Public Vaccination Station, Peter St.	*Dr. H. A. P. Robertson.*	Wednesday; 11.
Exeter	Odd Fellows' Hall, Bamfyld Street.	*Mr. C. H. Roper.*	Thursday; 3.
Leeds	22, Burmantofts Street.	*Mr. F. Holmes.*	Tuesday; 3.
Liverpool	The Ladies' Charity, Parr Street.	*Mr. A. B. Steele, Mr. J. H. Wilson*, and *Mr. J. Fenton*, acting conjointly, or at least two of them together.	Friday; 2.
Manchester	159, Rochdale Road.	*Mr. E. S. Guest.*	Monday; 2.
Newcastle-upon-Tyne	11, Pilgrim Street.	*Mr. G. C. Gilchrist.*	Tuesday; 2.
Edinburgh......	The Royal Dispensary.	*Dr. W. Husband.*	Wednesday, Saturday; 12.
Glasgow........	The Hall of the Faculty of Physicians and Surgeons.	*Dr. J. Dunlop.*	Monday; 12.

MEDICAL SCHOOL DINNERS.

WESTMINSTER HOSPITAL.

The Lecturers of the Medical School entertained their friends and the students at a *soirée* in the boardroom of the hospital, after the Introductory Address had been delivered, on the first of this month. No trouble had been spared to afford amusement to the guests, who numbered upwards of one hundred and fifty. Several new instruments were exhibited by Messrs. Eliott, Pratt, Baker, Meyer and Meltzer. Mr. Collins supplied a collection of beautiful microscopic objects; and Mr. Tuson had arranged his unrivalled series of embryological drawings illustrating the stages in the development of the fœtus. We were glad to observe that a large number of former students took the opportunity of revisiting their Alma Mater.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

The annual dinner of the students took place on October 1st, at the Adelphi Hotel; Dr. Cameron in the Chair, Mr. Hill and Mr. Potts Vice-chairmen. About eighty gentlemen sat down. The usual loyal toasts were proposed; the Army, Navy, and Volunteers; and the Clergy, coupled with the name of the Lord Bishop of the Diocese. The Chairman then gave "Success and Prosperity to the Liverpool School of Medicine", which was responded to warmly by Dr. Nevins, Mr. Harrison, and Mr. Bickersteth. Dr. Inman then gave "The Lecturers of the Medical School, and Mr. Bickersteth especially." Other toasts followed, including the Health of the Chairman, which was received with great warmth. A variety of excellent songs were given throughout the evening, by Dr. Roberts, Dr. Glynn, Mr. Paget, and Mr. Pope.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Wednesday, the 28th of October, 1868, at 1 o'clock precisely. T. Watkin Williams, F.R.C.S., *General Secretary.*

13, Newhall Street, Birmingham, October 6th, 1868.

CUMBERLAND AND WESTMORLAND BRANCH.

The autumnal meeting of the above Branch will be held at the Board Room of the Infirmary, Howgill Street, Whitehaven, on Wednesday, October 14th, at 1 P.M. The Infirmary will be visited at 3.30 P.M.; and dinner ordered at the Black Lion for 4 P.M.

Gentlemen intending to be present at the dinner, or to read cases or papers, are requested to give notice to the Honorary Secretary,

Carlisle, Sept. 19th, 1868. Henry Barnes, M.D.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

The next meeting of this Branch will be held at the White Hart Inn, Reigate, on Thursday, October 22nd, at 4 P.M. Dr. Holman, of Reigate, in the Chair.

Papers, etc., will be read by Dr. Braxton Hicks, Mr. C. R. Thompson (Westerham), and Dr. Holman.

Dinner will be provided at 6 P.M.

Henry T. Lanchester, M.D., *Hon. Secretary.*

Croydon, October 6th, 1868.

SHROPSHIRE ETHICAL BRANCH.

The annual general meeting of the above Branch will be held at the Lion Hotel, Shrewsbury, on Tuesday, October 27th, at 1.30 P.M.; W. J. Clement, Esq., M.P., President, in the Chair.

Dinner will be served punctually at 4 P.M., for the convenience of the country members.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate their intention, at their earliest convenience, to

Jukes Styrap, } *Hon. Secs.*
Edwyn Andrew, }

SHROPSHIRE SCIENTIFIC BRANCH.

The annual meeting of the above Branch will be held in the Natural History and Antiquarian Society's Museum, Shrewsbury, on Wednesday, October 28th, at 2.30 P.M.—President for 1867-8, William Newman, M.D., Stamford; President-elect for 1868-9, Samuel Wood, F.S.A., Shrewsbury.

Gentlemen intending to read papers or cases, are requested to communicate with the Honorary Secretary.

The dinner will take place at 5 o'clock. Members can introduce friends. Samuel Wood, F.R.C.S., *Hon. Sec.*

SOUTH MIDLAND BRANCH.

The twelfth autumnal meeting of this Branch was held at the Town Hall, Luton, Beds, on Friday, October 2nd, 1868, at 2 P.M.; C. E. Prior, M.D., President, in the chair. The gentlemen present were previously entertained at luncheon by Dr. Woakes, at his residence.

There were fifteen members and visitors present.

Dr. Prior, on taking the chair, gave a short address; after which Dr. Bryan read the minutes of the last meeting, which were confirmed; and, in his Report of the Branch, stated that it was in a very flourishing condition, consisting of one hundred members, a greater number than heretofore; and the funds in hand were £4 : 15.

The following new members were proposed, and elected unanimously; viz., C. Burnett, Esq., Biggleswade; J. Benson, L.R.C.P.Edin., Luton;

Thos. Major, Esq., Toddington; and H. E. Trestrail, L.R.C.P.Edin., Luton.

Papers were read by C. E. Prior, M.D.; Ed. Woakes, M.D.; G. P. Goldsmith, Esq., for Dr. Newman of Stamford, who was absent; C. C. Balding, Esq., Shefford; and A. Evershed, Esq., Ampthill.

Some beautiful specimens of new remedies and instruments were exhibited; and the meeting closed with a vote of thanks to the authors of papers; to Dr. Prior, President; to Dr. Woakes, who had so handsomely entertained them; and to the Honorary Secretary and Treasurer, Dr. Bryan and G. P. Goldsmith, Esq.

All then adjourned to Dr. Woakes's house, where coffee, etc., was provided; and they then separated at about 6 P.M., after a very agreeable and instructive meeting. The next annual one is to be held at Northampton in June 1869, under the presidency of Dr. Newman of Stamford.

EAST YORK AND NORTH LINCOLN BRANCH.

THE half-yearly meeting of the above Branch was held at Grimsby, on September 23rd, 1868; HENRY GIBSON, Esq., President, in the Chair. There were twenty-one members and visitors present.

An apology for absence was sent by Dr. Bell of Louth.

The following papers were read:—1. Cases of Placenta Prævia. By Henry Gibson, Esq. 2. The Treatment of Wounds by Carbolic Acid. By Dr. King. 3. On the Treatment of Typhoid Fever. By Sir H. Cooper, M.D. 4. A few remarks on Artificial Anus. By Dr. W. J. Lunn. 5. Dislocation of the Crystalline Lens of both Eyes. By F. B. Keetley, Esq. 6. A Case of Stones in the Kidneys, with Specimens. By H. M. Leppington, Esq. 7. A Case. By R. M. Craven, Esq.

The members afterwards dined at the Yarborough Hotel.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

THE first meeting of the twelfth session, 1868-9, was held at Rochester on Sept. 25th; Dr. BURNS in the chair.

The Treasurer and the Honorary Secretary were re-appointed, with an expression of sympathy with the Secretary for his visual difficulties.

The next meeting was appointed for Tuesday, November 10th, at Maidstone, with H. W. Joy, Esq., as Chairman.

A vote of condolence was passed with the families of two deceased members, Messrs. Allwork and Dulvey, whose untimely deaths were reported.

A resolution was unanimously passed to the following effect. "That this meeting, appreciating the sacrifices made by Mr. T. Heckstall Smith in defending the action for libel recently brought against him, record their deep sense of his high public spirit and of his unselfish and unflinching perseverance on that occasion."

Following upon that was another resolution; viz., "That a subscription be set on foot for the purpose of presenting a testimonial to Mr. T. Heckstall Smith, as a lasting record of the esteem and regard in which he is held by his friends, and of their approval of the manner in which he has upheld the honour of his profession under trying circumstances."

John M. Burton, Esq., of Blackheath, was appointed Treasurer and Secretary to the Testimonial Fund, and a goodly list of subscribers was at once announced.

Dr. Gramshaw announced his intention of bringing forward a resolution at the next meeting, respecting the appointment of a Permanent Medico-Ethical Committee for the district.

Communications.—Dr. Smart, R.N., read a paper on the Cerebral Complications of Phthisis in Adults. J. Z. Laurence, Esq., performed some Operations on the Eye.

The members and visitors adjourned to dinner at the Bull Hotel.

WEST SOMERSET BRANCH.

AN ordinary meeting of the above Branch was held at Clarke's Castle Hotel, Taunton, on Wednesday, September 30th, at 5 o'clock. W. L. WINTERBOTHAM, M.B., President, occupied the Chair; and there were present thirteen members.

The following cases were communicated:—1. A Case of Abscess in the Groin communicating with the Bowel. By the President. 2. A Case of Fractured Scapula. By W. H. Axford, M.B. 3. A Case of Concussion of the Spine, followed by Herpes Zoster. By W. H. Axford, M.B.

Besides lively discussions on the above cases, which presented many interesting peculiarities, other subjects of professional interest were brought forward and freely discussed during and after dinner.

CORRESPONDENCE.

EPIPHORA AND REMOVAL OF THE LACRYMAL GLAND.

SIR,—In 1843 P. Bernard removed the lacrymal gland for troublesome epiphora of ten years' standing, which he thus radically cured. The operation was repeated, in isolated cases, by Textor, Sen., and Alfred Graefe. In 1866 I commenced systematically removing the lacrymal gland for obstinate lacrymal disease, and published fourteen successful results in various papers on this subject. Such operations have also been since performed by Wecker, Pagenstecker, R. B. Carter, Windsor, C. Taylor, etc. In your impression of September 10th I am pleased to see the subject rediscussed by so able an ophthalmologist as Dr. Wolfe of Aberdeen. I regret, however, to find so many inaccuracies in his observations.

He says, "Magendi and Martini removed the lacrymal gland in animals, but found that the secretion of tears still continued." This is not so: they found the eye still moist, but not from *tears*. He then speaks of the tears in some cases after the removal of the gland being "secreted in such quantity, under irritation, as to flow down the cheek," citing the names of Daniel O'Brian (*sic*), Sir W. Lawrence, Graefe, and Paul Bernard. I have looked over the cases of O'Beirne (Dr. Wolfe's Daniel O'Brian), von Graefe, and Bernard, and find no such statement. Indeed, the experience of Mr. Windsor and myself, shows that *complete* removal of the gland is followed by complete abolition of tears. I cite the above merely to show the looseness of Dr. Wolfe's assertions. But the results of his experiments "showing that the performance of so formidable an operation for that purpose would, in all probability, prove of little value," I find still more loose. I can attach but little value to Dr. Wolfe's four-class experiments on rabbits. Intrinsically, even, they are inconclusive.

He says: "In 1863, I repeated in my class the experiments of Magendi, Martini, and Donders, by removing, in the right eyes of two rabbits, both the lacrymal gland and the gland of Harder, connected with the membrana nictitans. In both cases, the right conjunctiva remained as moist as the left, and, when dried by everting the eyelids and applying a dry cloth, became again moist in a few seconds. The application of irritants, such as ammonia, to the nostrils, produced precisely the same effect on the eye operated on as on the sound eye."

That removal of the gland does not cause dryness of the globe, had been so well established by the cases of others and myself, as to have needed no further corroboration. The last paragraph is contrary to my experience and to Dr. Wolfe's own previous statement; but, as he has failed to inform us what the effect of the ammonia was, I am not in a position to follow him on the point. Dr. Wolfe then gives us two other "experiments." "On two other rabbits, I removed part of both eyelids and of the membrana nictitans; and, in both, although the eye was protected, in the one by drawing the ear over it and securing it in that position, and in the other by a screen of wire-gauze, the cornea became opaque in the part thus left unprotected."

All physiological experiments are surrounded by fallacies. Dr. Wolfe's appear to me to be especially so. It does not surprise me that the rabbits' eyes should have become "opaque" (Dr. Wolfe in a literal communication says they became also "dry") after such a procedure with such imperfect "protection." (?) Dr. Wolfe asserts that the lacrymal gland secretes only "periodically."

From Professor W. Henke's account I infer he regards the tears as being continuously secreted. What amount of the liquid diffused over the surface of the eye belongs to the secretion of the lacrymal gland, and what to that of the conjunctival glands, is a matter for further investigation. To verify the continuity, or not, of the lacrymal secretion, we should establish a permanent fistula of the lacrymal gland in animals, and note the results. In recorded cases in the human subject of morbid fistula of the gland (*vide* Wecker's *Treatise*, 2nd edit., vol. i, p. 855), the flow of tears was *continuous*. I wish not to be misunderstood. I consider removal of the lacrymal gland as our last, but valuable, resource in those inveterate cases of lacrymal disease, which resist all milder measures. Not that the operation is a "formidable one;" as Dr. Wolfe imagines; for it only demands that due knowledge of the anatomy of the parts, and that care in its performance which most surgical operations do.

I fear I have already trespassed too far on the space of the JOURNAL, but I have still left many points untouched here, which I hope to do in a *brochure* I at some future period may lay before the profession.

I am, etc., J. Z. LAURENCE.

London, September 29th, 1868.

HYDROPHOBIA.

SIR,—I most cordially agree with the views expressed by the editor of the *Medical Times and Gazette* and your correspondent Dr. Morehead, with regard to the opinions lately promulgated on the subject of hydrophobia by Mr. Holmes Coote, who seems to think that there is no marked distinction between it and tetanus. If you will kindly give the following extract from my lectures on the subject, we may convert Mr. Holmes Coote to our opinions.

"It must be evident to those acquainted with the phenomena of tetanus, that it differs from hydrophobia in the following respects. 1. It results from injuries of the most varied character. 2. The effects follow in a very short space of time, a week seldom if ever elapsing between the injury and the development of the symptoms; while the shortest interval between the bite and the first symptom of hydrophobia was twelve days, the longest three hundred and thirty-four days, and the average sixty-one days eighteen hours. 3. That anxiety, horror, dyspnœa, or convulsions at the sight of fluids, form no part of the symptoms included under the term tetanus. 4. That, in tetanus, some of the muscles are often in a state of continuous rigidity; and that the convulsions occur at much shorter intervals than in cases of hydrophobia. 5. That delirium is a very rare symptom in tetanus, and a frequent one in hydrophobia, occurring eighty times in one hundred and twenty cases. 6. That, in tetanus, the secretion of saliva is never increased. 7. That the muscles of the lower jaw are, in tetanus, frequently in a state of continued tension. 8. Opisthotonos or emprosthotonos often terminates the case. 9. Tetanus is not necessarily fatal; while it will be seen, as hereafter shown, that hydrophobia, when once developed, leaves no hope of saving the patient. These differences are sufficient to justify hydrophobia being considered a disease distinct from tetanus."—Lecture II, pp. 25-26.

I am, etc., THOMAS C. SHINKWIN, M.D.,
Demonstrator of Anatomy, Queen's College, Cork; Junior Surgeon, North Cork Charitable Infirmary.

Cork, September 1868.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

POOR-LAW MEDICAL RELIEF AND MEDICAL OFFICERS.

SIR,—A general election is near; therefore I shall feel obliged if you will permit the following queries to appear in your next issue, under the hope that some medical officer can be found among each constituency to submit them to every candidate for a seat in the House of Commons. They might easily be written out, and handed to each candidate, with a request that he will kindly give an expression of his opinion on these important subjects. I am, etc.,

October 1st, 1868. PHILIP.

1. Will you, if returned to Parliament, endeavour to improve the constitution of the Poor-law Board, more especially with reference to the appointment of gentlemen competent to devise and carry out a more uniform, adequate, and efficient system of medical relief to the sick-poor?

2. Will you be disposed to take into consideration the case of the Poor-law medical officers, upwards of three thousand in number, who are daily and hourly performing most responsible duties, and at salaries so inadequate as to be altogether unremunerative for the time, skill, labour, and supplies of medicine which they are compelled to furnish?

Dr. Lyon Playfair says: "To give a miserable salary to a medical officer, and to compel him, out of that, to provide medicines for the poor patients, is an amazing instance of mal-administration."

3. Will you support any measure which may be brought into the House of Commons having for its object more extended appliances for the better treatment of the sick poor, and giving the medical officer power not only to order, but to insist on, the administration of such diet, wine, and other necessary comforts as may, in his judgment, be requisite?

Unless this be accorded, the medical officer's hands will always be crippled; and the successful treatment of the sick poor will remain a solemn, but lamentable farce, discreditable to all concerned.

The labours of the Poor-law medical officers are most onerous and trying, inasmuch as they are constantly tied to their duty, and are liable to be summoned at all hours of the day and night; the risks they have to undergo are at all times serious, if not dangerous; health and life are frequently sacrificed, and there is no provision at present either for the disabled, the superannuated, or the bereaved.

4. Will you, therefore, assist in the Commons' House of Parliament to obtain justice for the medical officers under the Poor-law—will you endeavour to place them in their right and legitimate position as members of a learned profession, who devote their time, their energies, and their talents to the alleviation of human suffering as witnessed in the constant treatment of the manifold diseases of the poorest of the poor?

5. Will you vote for such reasonable remuneration as will enable every Poor-law medical officer to discharge his duty to the sick poor, and, at the same time, will pay him adequately for the supplies and the services rendered?

THE MORPETH BOARD OF GUARDIANS.

THE Morpeth Guardians are determined to retain their unenviable notoriety for neglecting the sick and failing in their duty. The following paragraph, from the *Newcastle Daily Express*, should bring a blush to the cheek of every man that sits at the board.

"About the same time that Mr. Hedley visited the workhouse, Dr. Paton, the medical officer, made a report to the Poor-law Board on the condition of the house; and in that report he stated that the ventilation in the vagrant ward was very defective; that the water-supply and water-closets in the men's day-ward were both of little use; that there was neither hot nor cold water to be got in the infirmary or sick wards; nor had the Board provided a bath for these wards, where one was very much needed. The supply of water to the water-closets, he said, was much too small; the cisterns were defective, and supplied only from the roof; and the whole of the walls were left unplastered. He complained that there were no wards in which to take a fever patient; characterising the places provided for this purpose as totally unfit, being both damp and imperfectly ventilated; and he concluded his report by recommending that the vagrant ward be provided with the necessary means for securing health and decency. The report I have been speaking of was made three months ago; and on Wednesday the doctor repeated it nearly word for word. In fact, there had been nothing done during the whole of that time. Latterly the fever has been bad in the town, and those who have been removed to the workhouse have had to be taken into the house, Dr. Paton refusing to treat them in the fever hospital.

OBITUARY.

GEORGE BOTTOMLEY, ESQ., CROYDON.

WE had the regret to announce the decease last week of this active, sound, and earnest member of our Association. Mr. Bottomley commenced practice shortly after the year 1811. He was an ardent and consistent reformer. He was identified with every movement in the profession which had for its object the correction of abuses. He belonged to the National Association, which was formed for the "purpose of elevating the position of the general practitioner", and establishing a separate College for his especial benefit. He was one of the earliest to discover that the prime movers in that Association were bent rather on the elevation of themselves than of their brethren. Mr. Bottomley accordingly resisted their efforts to swamp the title of surgeon, and, in fact, lower the position and grade of surgeons in general practice. For the courage and firmness which he displayed in this matter, he received the honour of being called the English Brutus. By his "unadorned eloquence", he convinced the members of the Association in question that they were taking a suicidal course, in attempting to found a new College and a new class. The Association, which was numbered by thousands, dwindled away, and soon ceased to exist. He took an active part in the local affairs of the British Medical Association. He was not a man of much acquirement, or rather of "book knowledge"; but he was a good practical surgeon, and possessed much common sense, which is more valuable than learning in the practice of our art. He laid no claims to be an orator; but he spoke with a certain vehemence and force, which convinced his hearers that he was in earnest. He had the courage to stick to a good cause, which to some might appear hopeless; but he was of a sanguine temperament, and had that tenacity of purpose which obtains its end by "pegging away". He was fond of athletic sports, and was a good cricketer even to within a short period of his death. His form rather pourtrayed strength than elegance; and his features were strongly, though not unpleasantly, marked. He was much respected by his friends and patients; and his loss will be deplored by many of the poor of Croydon and its neighbourhood.

DE BEAUVOIR DE LISLE, M.D.

It is with very sincere regret that we announce the death of Dr. De Beauvoir De Lisle, which took place at his house, in Grange Road, on Sunday morning, after an illness of about ten days' duration. His kindness, his unflagging attention to his numerous patients—whatever their station—whatever their circumstances,—the sympathy which he displayed not only with the sick who were the subjects of his skilful treatment, but with their anxious and afflicted kindred, acquired for him not the confidence merely, but the gratitude and affection of all. Many is the house that he has entered as a professional practitioner, but left as a benefactor and a friend. As a member of the community, Dr. De Lisle was distinguished by his patriotism and his public spirit. Guernsey had no more affectionate and devoted son. It may be safely said that no social or material improvement has taken place in Guernsey in which Dr. De Lisle has not borne an efficient part, while several, such as the improvement in the treatment of lunatics, and of the sanitary condition of the island, and the formation of that bathing establishment which has been so great a public benefit, have been either inaugurated by him or are mainly due to his exertions. Already we hear that several of the friends and the grateful patients of the deceased are speaking of erecting to his honour a monumental window in the town church, or in the church of his natal parish, St. Pierre-du-Bois.—*Guernsey Star.*

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

The Professor of Anatomy gives notice that the Course of Lectures on Practical Anatomy will commence on Monday, October 12th, at 1 P.M., in the Old Anatomical Schools, and be continued daily till the 20th, and after the 20th on Mondays, Wednesdays, and Fridays, at 7 P.M.—The Course on Anatomy and Physiology will commence on Tuesday, October 20th, at 1 P.M., in the New Museums, and be continued on Tuesdays, Thursdays, and Saturdays. This Course is intended for students of Natural Science as well as for medical students.—Microscopical Demonstrations will be given on alternate Mondays at 6 P.M., commencing on October 26th.—Practical instruction in Minute Anatomy will be given by Mr. J. Gedge, of Caius College, on Saturdays at 11 A.M., in the old Anatomical Schools, commencing on October 17th.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from 30th Sept. to 6th Oct. (both inclusive).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.857
Highest reading of do. (corrected), on 2nd Oct., 10 A.M.	30.131
Lowest ditto Ditto on 30th Sept., 10 A.M.	29.232
Range of pressure during the week	00.899
Mean temperature of air in shade	53.4
Mean temperature of evaporation	50.5
Mean temperature of dew-point	47.7
Mean degree of humidity (saturation=100)	80.6
Mean maximum temperature of the week	59.4
Mean minimum temperature of the week	44.5
Calculated mean temperature of the week	51.9
Maximum temperature of air in shade, on Sept. 30th	65.0
Minimum temperature (protected), on Oct. 4th	38.5
Minimum temperature (exposed on grass), on Oct. 4th	33.1
Range of temperature during week	31.9
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on Oct. 2nd	113.2
Lowest ditto ditto on Oct. 3rd	64.3
Mean amount of clouds (0—10)	6.1
Total rainfall (which fell on Sept. 30th, Oct. 3rd, 5th, 6th)	1.10 inch
Mean amount of ozone (0—10)	3.3

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	3	0	0	0	2	1	0	1	3.3
2 P.M.	0	3	0	1	0	2	1	0	0	3.7
10 P.M.	0	3	0	0	0	1	0	0	3	2.0

Mean force of wind (0—12) ... 3.0

The weather of the week has been changeable. Atmospheric pressure has been fluctuating, attaining its lowest on the 30th Sept., and varying after that within much greater limits than last week. Temperature has decreased considerably, owing chiefly to the prevalence of north-easterly winds, on the 1st, 2nd, and 3rd of October. The rainfall has been considerable, amounting on the 3rd to half an inch. Winds have been of moderate force, and have varied almost equally between north-east and south-west. The general health continues good.

Kew, October 7th, 1868.

PRESENTATION OF A TESTIMONIAL TO MR. TATUM.

After the Introductory Lecture by Dr. Acland, the old friends and pupils of Mr. Tatum assembled at the residence of the Marquis of Downshire, when the Committee presented him with a beautifully worked silver salver, on which was written an appropriate inscription, and a very handsome sum of money, the balance of the subscription-fund, on his retirement from active duties at St. George's Hospital, as a mark of their regard for him as a friend and as a teacher. Mr. Tatum made a feeling and appropriate reply.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 1st, 1868.

Bell, John Albert, Rochester
Robinson, George, Spilsby
Spratt, Henry Howell, New Zealand

At the same Court, the following passed the first examination.

Yates, Walter Peel, Guy's Hospital

At the Preliminary Examination in Arts, held at the Hall on the 25th and 26th of September, 1868, 129 candidates presented themselves; of whom 36 were rejected, and the following 93 passed, and received certificates of proficiency in general education.

J. S. Andrews, H. M. Aspinall, C. E. Baker, F. Barnes, J. Barrett, C. A. G. Barrow, Frederick Barrow, W. H. Bassano, E. A. Birch, W. D. Bowkett, E. J. Burgess, H. F. Burnes, J. K. Burt, H. Charlesworth, W. H. Coke, C. A. Colmer, G. B. Collet, N. E. Collier, J. B. Colthurst, J. B. Connell, F. A. Crisp, E. O. Day, C. J. Davey, J. T. Duncan, Henry Davis, Henry Evans, W. Fairbank, S. H. Fisher, W. Flewitt, E. Fyson, J. A. Goodchild (special certificate), H. J. F. Groves, F. A. Hall, G. A. Hamerton, A. Hands, Arthur Hanks, Vincent Harris (special certificate), W. D. Haslam, W. D. Hemming, H. Hetley, A. H. O. Hernage, J. C. Irving, W. E. Jay, C. G. Johnson, Chas. A. Jones, Thomas Jones (of New Quay), A. Kebbell, H. C. Lang, J. Liddudale, J. C. W. Lord, E. T. Luke, H. M. Maggs, A. V. Maybury, Arthur Moore, S. W. Moore, C. F. F. Murrell, V. T. Nicoll, F. H. Nisbett, E. J. Nix, F. C. Openshaw, W. Peacey, R. J. Pitt, J. P. Pocklington, A. C. Pratt, C. E. Priestly, D. W. G. Prothero, T. D. Ransford, Mark Robinson, Stanley Robinson, H. Rogers, A. H. Savory, F. J. Sawdon, Edward Scott, C. H. Sers, G. A. B. Sinclair, E. B. Smedley, F. H. Smelt, G. Cockburn Smith, H. A. Smith, W. W. B. Sparrow, E. R. Spencer, L. W. Spencer, W. E. Steavenson, H. W. Stuart, R. G. Thomsett, George Turner, J. E. Velze, V. A. Wartenberg, R. C. Watson, C. W. Weech, F. W. Wheeler, R. Whitelam, and W. A. Wilding.

Indian Medical Service.—The Military Secretary, India Office, presents his compliments to the Editor of the British Medical Journal, and begs to enclose a list of the candidates for Her Majesty's Indian Medical Service, who were successful at the competitive examination at Chelsea, on August 10th, 1868.—Maximum number of marks, 3400.

Order of merit.	Names.	No. of marks.	Order of merit.	Names.	No. of marks.
1.	Downie, K. M.	2485	6.	Kiernander, W. C.	1945
2.	Makenzie, F. M.	2240	7.	Blenkinsop, F. H.	1910
3.	Johnson, E. R.	2130	8.	Hutcheson, G.	1870
4.	Wright, W. E.	2015	9.	MacGregor, J.	1850
5.	Lupton, A. W.	2005	10.	Rabb, J.	1775

MEDICAL VACANCIES.

The following vacancies are declared:—

BELMULLET UNION, co. Mayo—Medical Officer for the Bangor Dispensary District.
BIRMINGHAM GENERAL DISPENSARY—Two Resident Surgeons.
CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square—Physician.
CLUNY HILL HYDROPATHIC ESTABLISHMENT, Forres—Physician.
FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, Holborn—Surgeon.
GLOUCESTER INFIRMARY—Surgeon.
GUERNSEY—Medical Officer to the Lunatic Asylum; Surgeon to the Gaol.
GUY'S HOSPITAL—Surgical Registrar.
ISLINGTON DISPENSARY—Physician.
KENT COUNTY OPHTHALMIC HOSPITAL—House-Surgeon.
KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY—Resident Medical Officer.
LICHFIELD UNION—Medical Officer for the Alrewas District.

LINCOLN GENERAL DISPENSARY—Resident House-Surgeon and Apothecary.
LONDONDERRY COUNTY LUNATIC ASYLUM—Resident Medical Superintendent.
MANCHESTER TOWNSHIP—Assistant Medical Officer to the Workhouse Infirmary.
NEWPORT PAGNEL UNION—Medical Officers for Districts No. 2 and 8.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician.
ROYAL INFIRMARY, GLASGOW—Two Assistant-Physicians, a Surgeon, and Two Assistant-Surgeons, to the Dispensary Department.
STRANORLAR UNION, co. Donegal—Medical Officer for the Killygordon Dispensary District.
SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.
SWINFORD UNION, co. Mayo—Medical Officer for the Swinford Dispensary District and the Workhouse.
TRINITY COLLEGE, Dublin—Professor of Botany.
UNIVERSITY OF GLASGOW—Waltonian Lecturer on the Eye.
WESTMINSTER HOSPITAL—Surgical Registrar.

MEDICAL APPOINTMENTS.

HILL, J. H., L.R.C.P.E., has been appointed Resident Medical Officer for the Males at St. Pancras Workhouse.

ORFEUR, C. Howard, M.R.C.S., has been appointed House-Surgeon to the Northern Hospital, Liverpool, *vice* J. Oliphant, M.D., resigned.

*SPENCER, Henry B., M.D., appointed Surgeon to the Headington Lying-in Charity, Oxford.

WILLIAMS, J. Llewelyn, M.B., has been appointed Junior House-Surgeon to the Northern Hospital, Liverpool, *vice* G. Bradley, M.R.C.S., resigned.

BIRTHS.

BERWICK.—On October 4th, at Sunderland, the wife of George Berwick, M.D., of a daughter.

MOXEY.—On October 4th, at Edinburgh House, Turnham Green, the wife of *David Anderson Moxey, M.D. Edin., M.R.C.P. Lond., of a son.

MARRIAGE.

ON September 24th, at St. Margaret's Church, King's Lynn, by the Rev. W. Lake Onslow, rector of Sandringham, assisted by the Rev. P. J. Wodehouse, vicar of St. Margaret's, Agnes Georgina, eldest daughter of *T. M. KENDALL, F.R.C.S., of King's Lynn, to Edwin WOODWARD, L.R.C.P.Ed. and M.R.C.S., of the same place.

DEATHS.

*BADDELEY, William Edward, L.R.C.P., F.R.C.S., at Newport, Salop, aged 51, on October 2nd.

DE LISLE, De Beauvoir, M.D., at Guernsey, aged 62, on September 27th.

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LEICESTER INFIRMARY.—A legacy of £100 has been received by the Treasurer, under the will of Miss Charlotte Palmer of Carlton Park, Rockingham.

THE CHILDREN'S WARD, UNIVERSITY COLLEGE HOSPITAL.—A special appeal to the public is being made to raise sufficient funds to enable the Governors of University College Hospital to open the children's wards lately added to the hospital. They will entail an annual expenditure of £1,000, over and above the cost of furnishing.

VACCINATION.—In the year ending at Michaelmas 1867, 490,598 persons were successfully vaccinated by the public vaccinators in England and Wales; namely, 353,308 children under one year old, and 137,290 persons above one year old. The total number is equal to 64 per cent. of the 766,635 registered births in the year, and is an increase of 35,713 upon the number successfully vaccinated in 1866. A new and more efficient Vaccination Act came into force at the commencement of the present year, requiring the Guardians of the Poor to ascertain at stated intervals whether the Act has been complied with in the case of the children whose births have been registered in the union, and if not, to enforce compliance; and there are powers for enforcing the vaccination of children under 14 whose vaccination was neglected in infancy.

THE ROTHSCHILD HOSPITAL: JERUSALEM. — During the three months ending May 31st, there was a kind of epidemic of sun-stroke. In some cases, the attack was very rapid and ended fatally; in most, however, the course of the disease was favourable. Not only foreigners, but many natives also, were attacked, notwithstanding that the head appeared to be sufficiently protected from the influence of the sun's rays. A traveller was even attacked with sun-stroke in the evening, when the force of the sun's rays was considerably weakened. The acute cases manifested, more or less, the symptoms of apoplexy. In three rapid cases which Dr. London had the opportunity of observing, the mental powers, sensation, and motion, were lost within a few hours after the attack. There were elevation of temperature, vehement pulsation in the carotids, ciliary injection and even extravasation of blood into the eyes, and tracheal and bronchial rhonchi. In spite of antiphlogistic treatment, all three patients died. The cases which ran a favourable course presented symptoms of meningitis, and recovered after being treated with antiphlogistics for two or three weeks.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

KING'S COLLEGE HOSPITAL, Saturday, October 10th, at 2 P.M. Ovariotomy, Hare-Lip, Wry-Neck by Division of Sterno-Mastoid, Sir W. Fergusson; Cleft Palate and Radical Cure of Hernia, Mr. Wood; Removal of Tumour from Breast, Mr. Henry Smith.

CHARING CROSS HOSPITAL, Saturday, October 10th, at 1.30 P.M. Lithotomy, Mr. Hancock; Removal of Os Calcis, Mr. Canton; Fissure of Rectum, Mr. Canton; Cystocele, Mr. Hird.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Royal Microscopical Society, 8 P.M. Dr. Maddox, "On the Papillæ of the Frog's Tongue."—Hunterian Society.

THURSDAY.—Harveian Society of London.

FRIDAY.—Western Medical and Surgical Society of London, 8 P.M. Inaugural Meeting. The President (Mr. J. R. Lane) will read a paper "On the Prevention of Contagious Venereal Disease."

SATURDAY.—Association Medical Officers of Health, 7.30 P.M. The President (Dr. Druitt) will deliver an Introductory Address "On Popular Customs, Prejudices, and Morals, as influencing Sickness and Mortality."

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

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AN invalid will be grateful to any one who will tell him how to deodorise a small earthenware urinal which is in constant use.

ELECTION OF M.P. FOR EDINBURGH AND ST. ANDREW'S.

SIR,—The constituencies of Scotland appear in general to be favourable to that side of politics which is headed by the illustrious names of Gladstone, Bright, and Mill, and I think it highly probable that the graduates of the Universities of Edinburgh and St. Andrew's will also support this party.

It would be highly desirable not to lose this opportunity of securing a medical member, if possible, since we all know how much there is to be done for the advancement of medical knowledge, and how much in which legislation could assist us.

Hence, I submit to your readers, *who are liberals*, that Dr. James, who has had a considerable experience in public party life, and is, as is well known to his friends, an advanced liberal, is the most suitable of all the candidates at present before our notice to represent the medical graduates. Of Dr. Richardson, I would speak with the profoundest respect and admiration. Were this an election for the presidency of the College of Physicians, I would vote for him; but a Member of Parliament is very powerful for good or for evil over our destinies as a people, and I would not give an inch more of power than I could help to any one who, at the present juncture, would not support Mr. Gladstone in his noble struggle against the injustice and assumption of the Irish Establishment.

London, Sept. 1868. I am, etc., CHARLES DRYSDALE, M.D.

X.—SIR: Your correspondent X. should get Professor Wunderlich's recent work, *Das Verhalten der Eigenwärme in Krankheiten* (Leipzig: Otto Wigand, 1868. Price 8 sh.), which is the only exhaustive treatise on the subject that exists. With regard to the other question, I can only say that Dr. Moritz Meyer's book on Electricity, of which the third editition has just appeared, is a very complete and practical book. I am, etc., CH. BAUMLER.
10, Finsbury Place North, E.C., September 1868.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

THE MEDICAL CLUB.

SIR,—Feeling sure that the greater part of the members of the newly formed Medical Club are also members of our Association, I do not hesitate to ask permission to be allowed, through the medium of our JOURNAL, to request that all of those country members of the Medical Club, who, like myself, disapprove of the proposed alteration in the amount of the annual subscription, will be in attendance at the general meeting, to be held at the Club House, No. 9, Spring Gardens, on Wednesday, the 14th instant. In the notice of the meeting, nothing is mentioned as to why it is to be held; at the same time, I have good reason for thinking that the subscription-question will be the chief topic for discussion. If you will therefore kindly insert this letter in the next issue of the JOURNAL, or in some other and better way call especial attention to the subject, I shall be much obliged.

Newick, Uckfield, October 1868. I am, etc., RICHARD GRAVELY.

A STUDENT (Llandudno).—The registration at the College of Surgeons closes on Thursday, the 15th instant.

ANOTHER WAY TO STOP THE ADULTERATION OF MILK.

SIR,—As milk is adulterated to a great extent by the carriers, a very good plan is to have locked cans. The milk supplied to my family was very poor till I adopted the use of the locked can; and the quality now is excellent. A good padlock is necessary, with two keys; one the dairy people keep, and the other may be left in charge of the cook, if she is to be trusted; but, in case of a young child or an invalid requiring good milk, it is better for the can to go direct to the nursery or sick-room, to prevent the milk being meddled with. I am, etc.,

London, September 1868. M. A. B.

DR. R. S.—All candidates will henceforth be examined in medicine, unless possessing a recognised medical degree.

THE "LAUGHING GAS" AS AN ANÆSTHETIC.—CAUTION.

SIR,—As no inconsiderable interest still attaches in the public mind to the administration of the nitrogen protoxide or "laughing gas" as an anæsthetic, in place of chloroform (it has been, as your excellent JOURNAL rather hinted, condemned too hastily), and as it has been now given in England in something like a thousand cases without any accident, and as opinions vary very much, still, as to its relative safety or advantages over the other anæsthetics, perhaps you would admit a word of caution as to the manipulation of the gas as well as in its administration.

Through the kindness of the staff of the Dental Hospital. I have had an opportunity of watching and studying the larger number of these English cases. The chief advantage over chloroform is the fugitive or quickly passing nature of the anæsthesia, with absence of after ill results, vomiting, etc. This has been very remarkable in nearly all the cases. In one instance alone, signs of danger appeared. My attention has been drawn, however, by a correspondent in America, to two recent deaths there from the gas. In one, however (the accident suggests a grave word of caution), after terrible alarm and dismay, the cause of the death was found to have been in the patient having swallowed or soaked into the pharynx the cork used as a wedge to keep the jaws open; in the other case, the lungs were found "riddled" with tubercles. I am, etc.,

Sackville Street, October 1868. CHARLES KIDD, M.D.

DR. JONES (Chester).—The professional studies of your son will not be recognised until he has passed a preliminary examination in arts. There will be one at the College in December next; on passing which, he could at once enter the hospital, and thus only lose half a session. The examination at the Hall is just over.

SYPHILISATION.

A CORRESPONDENT in Christiania writes:—More than once lately there has been discussion at the Society of Medicine here on the subject of syphilisation. M. Owre, in the *Medical Times and Gazette*, has presented other statistics than those of Boeck, and far less favourable to syphilisation than his, from the same hospital cases—tending to prove, in fact, the futility of Boeck's method. He has added that not more than two physicians in Christiania thought well of syphilisation. Dr. Boeck's friends in Christiania have not allowed the statement to pass current. Dr. Holst, Secretary of the Society of Medicine, laid before the Society what he believed to be a true version of Boeck's reception in London In this manner constrained to reply, M. Owre backed his own statistics against those of Boeck, but without particular refutation of those in the hands of the Secretary. Eight members then spoke in favour of syphilisation: viz., Messrs. Bacher, Bidenkap, Gjör, Holst, Lund (President of the Society), Vilfe, Vinge, and Voss. The last was for three years member of a committee to report on these statistics. Four members of the Society supported views more or less similar to those of Owre, and one held still to the use of mercury. Subsequently, in the Society of Scandinavian Naturalists, M. Vinge spoke with approbation of M. Boeck's method in a case under discussion. Besides the nine whom I have named, there are others who are notoriously supporters of Boeck; so that, in, fact nothing can be more unfounded than the assertion of Owre as to the state of opinion here as regards this question.

BIBLIOPOLE.—The Library and also the Museum of the College of Surgeons are now open. They are always closed during the month of September.

CLUB REMUNERATION.

SIR,—Referring to a letter in your impression of Sept. 19th, on Club Remuneration, from Mr. Leacroft, I am happy to assure him that we take a more hopeful view of the five-shilling movement in this neighbourhood, where, in spite of the passive obstruction of some members of the profession, and the active opposition of a few others, the movement is undoubtedly progressing. The principle laid down by the Friendly Societies' Committee of the British Medical Association, is slowly but surely being recognised and acted upon by the societies. In this town, where 2s. 6d. and 3s. were the usual rates of payment, several societies have already given 5s. Some have raised the payment to 4s.; and the matter is still *sub judice* in many others. We have every confidence that, eventually, the minimum payment will be 5s.; but we can scarcely expect at once to revolutionise a system that has been extending for so many years under, I may venture to say, the fostering care of the medical profession itself. I am, etc.,

Birmingham, September 1868. ROB. MACPHERSON.

MR. McM.—Dr. Erasmus Darwin was a "F.R.S." The lines will be found in the *Botanic Garden*, Cant. II.

"Onward he steps; disease and death retire;
And murmuring demons hate him and admire."

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

PROFESSIONAL COURTS OF ARBITRATION.

SIR,—Absence from home prevented me from forwarding to you a reply to Mr. Thurnall's query and kind offer respecting Medical Courts of Appeal.

If Mr. Thurnall will kindly refer to the proceedings of the Bath and Bristol Branch of the British Medical Association, at their annual meeting, as reported in the JOURNAL of July 25th, he will there learn the course which was decided upon to be adopted.

The Committee, then appointed, will very soon meet, and the results reported at the first meeting of the District Branch, of which, I presume, Mr. Thurnall will see a report in the JOURNAL.

In the meantime, I should be very glad to learn the opinion of the profession, as far as possible, on the subject, either through the medium of the JOURNAL, or by private correspondence. I am, etc.,

Bath, September 1868. A. B. BRABAZON.

THE ACTION OF MERCURY.

SIR,—Your correspondent Mr. Pope is, as you observe, to be honoured for not, at his advanced age, shrinking from controversy on a subject which he, in common with every reflective practitioner, feels to be of such importance as the medicinal use of mercury. In the general tenor of his remarks I entirely concur. As regards the Edinburgh report, read at the last Association meeting, the one circumstance that entirely vitiates all its conclusions is, that *healthy* dogs instead of *bilious* dogs were operated on. Because mercury is shown to diminish rather than increase the secretion of bile from a previously healthy liver, it is most unphilosophically concluded that the result must be the same on a diseased liver. On the contrary, the result of these experiments would confirm me in the belief that mercury promotes the secretion of bile in that temporarily diseased state of the liver popularly known as being "bilious."

For what is the most generally accepted theory as to the physiological action of mercury on the circulatory system? It is, that it contracts the capillaries. Now the secretion of any gland may be lessened in two ways; either by the engorgement of its capillaries or their over contraction, both conditions preventing a due quantity of fresh blood being brought into the secreting cell.

If I give a remedy which has the power of inducing contraction of the capillaries in the first of these states, it is evident that I am restoring the gland to that condition in which it can exercise its secreting power, viz., normal distension of its capillaries; but if I give the same drug when the capillaries of the gland are already in a normal state, I induce over-contraction of the vessels, and thus lessen the secretion of the gland. Now this is, I believe, just what Dr. Bennett and his *confrères* have done. I am, etc., T. M. ROOKE, M.D.

Cambray, Cheltenham, September 1868.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Newcastle Daily Chronicle, Oct. 2nd; The Guernsey Star, Sept. 29th; The Japan Times' Overland Mail, August 8th; The Birmingham Journal, Oct. 3rd; The Halstead Times, Sept. 26th; The Wiltshire County Mirror, Oct. 7th; The Belfast News-Letter, Sept. 26th; The North British Daily Mail, Oct. 3rd; The Liverpool Daily Post, Oct. 2nd; The Birmingham Daily Gazette, Oct. 6th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Thomas Davies, Mold; Mr. Lister, Ventnor; Mr. G. Grewcock, Nottingham; Dr. Acland, Oxford; Dr. Wolfe, Glasgow; Mr. Potts, Handsworth; Mr. Henry Lee, London; Dr. H. B. Spencer, Oxford; Dr. G. Helm, Shepherd's Bush; The Council of the Pharmaceutical Society; Dr. Garner, Birmingham; Dr. Oliver, Quebec; Dr. R. Cowie, Lerwick, Shetland; Dr. C. S. Robinson, Dublin; Mr. R. S. Crothy, Dublin; Dr. Berwick, Sunderland; Mr. T. Watkin Williams, Birmingham; Dr. E. Woodward, King's Lynn; Dr. J. L. Williams, Liverpool; Dr. Arthur Ransome, Manchester; Mr. T. Smith, London; Mr. Richard Gravely, Newick, Uckfield; Mr. Horton, Rugely; The Honorary Secretaries of the Metropolitan Association of Medical Officers of Health; Mr. Corbin, Guernsey; Mr. M. Moon, London; and Mr. R. Lewis, London.

LETTERS, ETC. (with enclosures) from:—

Mr. W. P. Swaine, Devonport; Dr. Roberts, Manchester; Mr. F. W. Wright, Derby; Dr. John Cotton, Mooltan, Punjab; The Honorary Secretary of the East York and North Lincoln Branch; Mr. F. S. Garlick, Halifax; The Military Secretary of the Indian Medical Service; Mr. Wheelhouse, Leeds; Dr. G. M. Humphry, Cambridge; Mr. T. H. Bartleet, Birmingham; Dr. Kelly, Taunton; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; The Registrar-General of England; The Registrar-General of Ireland; Dr. John Murray, London; Dr. Treutler, Kew; Dr. Cotton, London; Dr. J. G. Swayne, Clifton, Bristol; Dr. Lanchester, Croydon; Dr. Bryan, Northampton; Mr. J. Ashburton Thompson, London; Mr. Horace Swete, Weston-super-Mare; The Honorary Secretaries of the Shropshire Ethical Branch, Shrewsbury; Mr. J. H. Hill, Manchester; The Honorary Secretary of the Western Medical and Surgical Society; Dr. Protheroe Smith, London; Dr. Moxcy, Edinburgh; Mr. Soelberg Wells, London; Mr. Bruce, London; Dr. Barr Meadows, London; Dr. Charles Kidd, London; Mr. J. F. Clarke, London; Dr. Basham, London; Mr. Walter W. Reeves, London; Dr. James Russell, Birmingham; Observer; and Dr. Prior, Bedford.

BOOKS, ETC., RECEIVED.

Letters on Natural Magic, addressed to Sir Walter Scott, Bart. By Sir David Brewster, K.H. New Edition. By J. A. Smith. London: 1868.

Report on the Sanitary Condition and Public Health of Mile End Old Town. By Matthew Corner, M.D., Officer of Health. London: 1868.

The British Army in 1868. By Sir Charles E. Trevelyan, K.C.B. Third Edition. London: 1868.

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AN ADDRESS

DELIVERED IN

THE PUBLIC HEALTH SECTION OF THE NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

By HENRY W. RUMSEY, M.D. Oxon. & Dub.,

PRESIDENT OF THE SECTION.

Of all persons, perhaps, members of the medical profession are the most liable to sudden and unexpected demands upon their supposed fitness for rendering help in emergencies, whether affecting the individual or the body corporate. Thus, even in the brief history of this prosperous Association, it has happened more than once that the chair of the Health Department, in spite of its great attractions, has been left by the force of circumstances without an eligible occupant-elect until the executive committee in their extremity have been driven to send for a doctor. Yet in this Society, where each department has so many complicated relations with other departments, it has been wisely judged, and for the first five years it was happily arranged, that some statesman, or legislator, or philanthropist, should inaugurate and guide our proceedings, bringing to the task all that public influence, that knowledge of social interests in general, which are necessary for the success of the sanitary movement, himself in return receiving from the department all that special and scientific information which may be derived from the papers read, and the discussions herein held, and which may thus be influentially applied to public and parliamentary action.

Thus, if we look back at the great advantages which resulted from the sectional presidency, first of Lord Stanley, and then of Lord Shaftesbury, succeeded as they were in turn by Mr. Cowper, Lord Ebrington, and Lord Talbot de Malahide—we may reasonably regret that we have on this occasion failed to secure some one of those public men who are known to be thoroughly conversant with matters of health, and who might have brought us more closely *en rapport* with the leaders of public opinion. In our sixth year, we reaped the benefit of the practical philosophy of Mr. Fairbairn. The intimate relations which exist between sanitary improvements and the skilful enterprise of civil engineers render it very desirable (if I may be excused for making the suggestion), that this department should sometimes be headed by one of their profession. During the last quinquennium, however, we have had an uninterrupted succession of medical presidents, men of great achievements, acknowledged authorities in preventive and legal medicine, and in the physical sciences. No wonder that, on such a retrospect, I should have undertaken very reluctantly the responsibility which has been committed to me—no wonder that I feel incompetent to sustain the *rôle* of my predecessors in office, and unfit for the honour which has been, I fear unwisely, pressed upon me.

The science of health preservation is an indispensable portion of the science of human society. Public health, that branch of hygiene which concerns communities, involves the enactment of laws, by which the safety of the whole is protected against the errors and neglects of a part. Our department, therefore, has inseparable relations with that for the amendment of the law. Both departments are now concerned in the prospective task of reducing to order and consistency a chaos of conflicting sanitary statutes. Both have called for the appointment of public prosecutors, without whom the most necessary enactments may prove inoperative. Then, private or personal hygiene might almost come under the charge of our educational section,—so entirely does a hearty obedience to precepts of health—as regards personal habits and conduct—depend on early instruction, good training, and intelligent conviction. Such obedience cannot, in a free country, be enforced by mere police regulations; unless, indeed, under some future Sanitary Act, any very unsavoury man might be defined a "nuisance," and so be brought under the operation of the Nuisances Removal Acts.

Domestic hygiene, again, seems to be something between public and private hygiene. Whilst the sacredness of the family hearth must be kept inviolate, the law may sometimes rightly and reasonably interfere, not only for the protection of neighbouring families, but also for the safety of dependent and helpless inmates. Here we see, in many ways, the connection between this department and that of social economy, especially in questions of labour and industry. How beneficial have provisions for the prevention of disease and accidents proved in the regulation of employments! There can be no true social economy where there is no respect for the rights and the welfare of others, no real education adapted to and accepted by all classes, nor any obedience to those physical laws which are ordained by God himself for the maintenance of a long, a healthy, a useful, and a happy life. These objects, as I understand them, constitute the elements of Social Science. Now, in the Health Department, at all events on this occasion, it seems desirable to confine our efforts principally to matters of Public Health—to their scientific foundations, and to some of their practical aspects and present bearings. On reviewing the progress of public measures during the past year, I have ventured to select, as the subject of this Address, a group of allied questions of pressing importance, and involving, perhaps, more seriously than others, the recognition of some first principles of natural science. No one here need be reminded that the physical surroundings of man determine mainly his degree of health, vigour, and longevity. Now, the philosophers of old recognised four elements of nature, sources of all things and all changes of things, whether beneficent or malignant. These elements of the ancients—fire, air, water, and earth—may therefore serve me as heads under which to group a few thoughts and suggestions on the relations of man to the facts of his natural and material life.

Fire, I take to include and express heat, of which it is a visible emblem and result. As the burning, purifying, and renovating principle of nature, I shall have to notice it in its action upon the other three—air, water, and earth. These, when wisely employed, are our best friends, the prime means and necessaries of our existence. Nature reverently handled, is really our great mother; and not, as a learned physiologist has of late facetiously called her, "a step-mother," to whom he attributed paroxysms of malevolent intention. These, our grand surroundings—air, water, and earth—are, however, liable to such original disorder, they may each and all assume such forms of danger and destruction, and they may be so abominally perverted by human ignorance and error as to produce, convey, and circulate among us the deadliest poisons. But man is endowed with capacities for observing the facts, noting the conditions, discovering the aberrations and mistakes, determining the right uses, inventing and applying the necessary remedial measures,—so that these primæval elements may be preserved and renewed as our perpetual sources of health and longevity. I take for granted that action of this kind, on behalf of the public health and safety, is that of the community, by means of its legislative and executive authorities; and I shall endeavour to show, by one or two striking examples, under each head, how incorrectly and imperfectly the first principles of science have been acknowledged and applied in some recent enactments of sanitary intention.

I. Air.—How strange it seems that society, for which man was formed, should be the original cause of his violating that primary natural law which demands purity and abundance of air for his healthy existence! No sooner, however, is a community formed, and its space of habitation limited by neighbouring population, than the air which supports it inevitably becomes more or less vitiated. In scattered populations, this continual vitiation of the atmosphere may be remedied partly by atmospheric motion, and partly by the rapid diffusion of gases. Even the insupportable nastiness of the air of an Esquimaux cabin finds its compensation, if not its cure, in the wide expanse of barren land, open sea, and fields of ice, over which the exhalations of the dirty barbarians are driven and dispersed. But, in warmer climates, as men congregate, when towns become the centres of active commerce, and the seats of art and manufacture—as the crowd thickens, as every square yard is occupied, at increasing cost, and as the average space per head continually diminishes—so does the purifying principle of the air, oxygen, lose its power, so does it become less efficient in renewing the blood, "which is the life of man," so is it rendered less capable of burning the carbon and other effete and noxious products of animal life. Here then, unless sanitary science be boldly and skilfully applied to social action, the masses deteriorate physically and morally. By degrees they lose the acuteness of those senses, Smell especially, with which their Creator has endowed them for purposes of self-preservation. The human form divine degenerates. The less favoured classes sink in the scale of race, dwindle, alter in shape, colour, feature—they grovel, sicken, and die prematurely. By a fatal descent, the lord of creation reaches after, and wallows in, the lowest gratifications, the grossest habits—acquires the profoundest indifference to, if not deepest hatred of, Law—divine and human—social order, purity of life and manners. Even the wealthier classes, upper and middle, cannot escape the physical injury consequent upon contact with preventable disease and mortality. Such a state of things leaves, too often, a sad impress, moral and social, upon the leading members of a community. The chasm between the classes tends to widen. In the skilful employment of capital, the workman has been too generally regarded as a mere instrument, which, *as a machine*, can be procured and used at the market price; yet on this instrument, *as a man*, is thrown the sole responsibility of maintaining himself in a state of efficiency, and of bearing the consequences, whatever they may be, of this human crush. Hence has grown up an antagonism of interests, a mutual distrust, which, unless it be removed, by just and liberal measures on the one part, of which there is now some hope, and by a fuller knowledge of the causes and remedies of their condition on the other, will shake the very foundations of society, and show its apparent prosperity to be but the thinnest crust of glittering matter over an abyss of revolution and ruin.*

May I be permitted now to refer to the physical-science aspect of this question of great towns. And if I venture to allude to facts and phenomena, which are well known to you all, it will be understood that I do so, merely to complete and strengthen my argument. What, then, is the physical nature of the impurities of town air? I know of no one who has contributed fuller information on this head than Dr. Angus Smith. Yet he, as well as others, has left much undetermined. *Excess of carbonic acid* is the most discernible injury inflicted by communities of men upon open air, an injury revenged with fatal force upon the aggressors. In nature, as we are told, there are rarely found more than 35 parts of this gas in 100,000 of air. But in the air of great towns are found from 40 to 74, according to the degree of population density, and also of fog or atmospheric moisture. In confined air, among tall structures, the proportion appears to be greater; in rooms said to be well ventilated, *i.e.*, supplied freely with town air, the average quantity is said to be about 80 in 100,000; in ill-ventilated rooms and workshops, there have been found from 100 to 700 parts—20 times nature's allowance! Now, as carbonic acid prevails, the circulation of the breathers is generally observed to slacken, the frequency of respiration to increase, and the nervous power to fail. Much of the phthisis and scrofula of town populations is doubtless due to an atmosphere overcharged with carbonic acid. Increased temperature, due to season or climate, renders an excess of this gas still more injurious. [Thus, even 1 per cent. may be endured at a temperature under 50 deg. Fahr., which would be absolutely intolerable at 70 or 80 deg.] But if the presence of this destructive gas be more easily ascertained and its quantity determined, and if it also tells us something of other gases of decomposition, it by no means reveals the most serious cause of atmospheric vitiation. There is much sulphurous acid in the air of smoky towns; much sulphuretted hydrogen near open sewers; and, worst of all, there are emanations peculiar to decomposing organic matter, especially animal *débris*. Thus, the air taken from high table-land in the country is said to contain only about one grain of organic matter in 200,000 cubic inches of air, and this mostly of vegetable origin; but air from a cesspool has one grain in only 60 cubic inches—or 3,333 times as much as in nature. (Watt's *Dictionary of Chemistry.*)

The degrees of organic impurity in town-air vary infinitely between these extremes, in proportion as the known causes of such emanations are allowed to putrefy without prompt removal or disinfection, *e.g.*, by means of charcoal in sewer-traps. Dr. Angus Smith has observed: "We have, in different air breathed by people in the same county, a substance, the amount of which in one case is 22 times greater than in the other, and in air breathed by people in the same town, a difference which is as 9 to 22." He adds, "that in the district in which the highest numbers were obtained, there were, in 1855, 4.5 deaths in 100 population." It is this organic matter in the air which is the most pernicious result of human crowding. It is this which, in the air, as well as in the water, conveys specific germs of disease, inconceivably minute forms, capable of infinite multiplication in the living human body. In this, then, lies the fatal secret of density of population. These emanations arise, as we know, in great measure, from foul water and from saturated and undrained soil; but in large proportion, also, they are exhaled from living beings—from the lungs of the diseased, from scattered saliva, and from the skins of the unwashed. It was generally supposed that that nitrogenous matter, which has been detected in the condensed vapour expired even by healthy people, came from the lungs. But a French physiologist, M. Lemaire, has lately shown (*Comptes Rendus*, Oct. 14th, 1867) and that in healthy adults, it proceeds from the uncleansed mouth, throat, gums, and the air about them. And he has recorded the very disagreeable fact, that skin-dirt (composed of perspiration, oily matter, and dust), when allowed to accumulate, is found, on examination, to contain myriads of microscopic beings, vegetable and animal (Bacteria and Vibrios), similar to those which he had before discovered in the air collected from the barrack-rooms of the Fort de l'Est. The French savant selected, of course, for his experiments, the uncleansed, "qui avaient," says he with the politeness characteristic of his nation, "négligé pendant huit et quinze jours les soins de la toilette." In our population, town and country, there are millions who neglect such attentions for as many months or years as this philosopher reckoned days! You may erect baths and wash-houses, but no Act of Parliament can compel their general use. Much, however, may be done by training the young in cleanly habits. These cutaneous emanations are dissipated in, and therefore infect, the air. The closer the aggregation of unwashed human masses, the more horible must be the resulting atmospheric impurity. When, without reckoning the floating organic particles which arise from mucous discharges (as epithelial cells, etc.) we add the pulmonary exhalations of phthisical and scrofulous persons, charged with elements of disease, believed by many to be contagious—we may obtain some clue to a source of atmospheric vitiation in dense populations, of which there is not the faintest popular notion.

Those most delicate physiological tests of bad air and of defective oxidation—the blood, bones, and skin of a living child—prove to demonstration, when mere chemical analysis fails to throw light on the case, that town air, even in its best conditions, contains subtle poison, from which the airy upland and the breezy shore are free, and that it also wants some elements of nutrition and purification which the latter supply. In Dr. Morgan's eloquent words, "A murky mass hangs like a shroud over the city—a dismal list of noxious gases is so intimately diffused throughout the air, that neither can the earth's heat radiate into space, nor can the warm beams of the summer's sun thoroughly dissipate the suspended canopy." (Morgan on *Deterioration of Race*, p. 29.)

Although much has been learnt from the study of death-rates, I have for some time past scrupled to quote them in support of sanitary *dicta.* With all respect for the Registrar-General and for my learned and distinguished friend Dr. Farr, I find these statistics full of fallacies—especially in crowded towns, where the figures give by far too favourable an estimate of that mortality which is strictly due to town life. I need hardly say that the death-roll does not reveal the actual loss of health among town masses. Nor does it record the multitudes *disabled* by a host of diseases and casualties which may not at once destroy life, though they ravage the territory of labour and duty, and levy a most heavy tribute upon produce and property. For this we need an official Registration of Sickness attended at the public cost. The Rev. Professor Haughton "has shewn that on very simple mathematical principles, the density of a population would be a factor determining the ascent of the curve of increase of an epidemic." (Morris on *Germinal Matter*, p. 10.) This would apply to the case of the distribution of poison by a water company. "I believe," adds Dr. Morris, in his very remarkable essay on Germinal Matter, "that bad sanitary state of any kind would be equivalent to greater *proximity*."

All other sanitary appliances and reforms being equally adopted, or equally neglected, it is certain that close proximity of dwellings, over an extensive area, is *per se* a cause of unhealthiness and deterioration of race. It is not fair to compare a well-regulated town population, having, perhaps, only eight square yards for each person to live upon, with an ill-conditioned dirty population in the open country. For all this vitiation of air, caused by town life, there appear to be three natural remedies of different values in different cases—Motion of air; diffusion of gases by natural law; the presence, or introduction of, active oxygen.

Now (1), the mere motion of air, if it be natural motion—*i. e.*, wind, is occasional and *variable*—while the generation of morbific causes is *constant*. The remedy cannot be relied on, for the air is often stagnant in circumstances of the greatest danger. The motion of air in towns is impeded by the proximity and height of buildings, probably as much as by insufficient openings in rooms. Nor do we know that, without the admixture of pure air, foul air can purify itself by simple motion. If the motion be artificial, it may be excessive or ill-timed, but of this again.

2. The diffusion of gases is necessarily limited by space, and mainly by superficial space; for of their diffusion in a vertical direction, *i. e.*, into the upper regions of the atmosphere, we know little, and that little (depending partly on diminution of temperature according to the height of aërial column, and partly on the relative specific gravity of gases) does not favour the hypothesis of an effectual change. Gaseous diffusion is also impeded by the very circumstances which impede aërial motion. And these circumstances are most potential in towns.

3. But the presence of active oxygen in sufficient quantity—and sufficiency here means abundance—were that possible in dense populations, would be the real remedy.

Oxygen I take to be the burning and purifying principle of nature, represented by the elemental fire of the ancients. For flame is but luminous combustion. Professor Tyndall has shown by his curious candle-burning experiments in the vale of Chamounix and on the summit of Mont Blanc, that the quickness and intensity of combustion, such as takes place in vigorous oxidation, is, in general, incompatible with that brightness of flame which depends on the presence of carbon or other inflammable matter. The purer the air, and more invisible is the fire, yet the more effectual the burning. The proportion, chemically determined, of oxygen in air may not be much altered in towns, though it is sometimes found to be less: but recent discoveries tend to prove that its energy depends on the conversion of a portion of itself into another form, which, when obtained artificially, we call Ozone. When Cavallo found that his Aura Electrica (caused by sparks passing from his machine through air) was a disinfectant if applied to fœtid ulcers, he laid the foundation of a discovery the future beneficial results of which are incalculable. The researches of Schönbein, now alas no more, and of subsequent scientific experiments upon this agent, have thrown great light upon its nature. By an electric current, the volume of oxygen through which it passed was found to be diminished to the extent of 8 per cent. Then, Odling and Soret have proved that this condensation is due to the substitution of 16 atoms of ozone for 24 of oxygen:—we also now learn that, while ordinary oxidisable substances absorb only the odd 8 atoms, restoring the ozonic oxygen to its original condition (though not to its original volume), a substance—oil of turpentine—has been found to absorb the whole of the ozone, which thus destroys itself in attacking its enemy. Finally, we know that ozone speedily removes dead and decaying matter "by resolving organisms into primitive and innocuous forms." (Day). Men of science have thus arrived, I venture to think, at the entrance of a wide field of practical work with this sanitary giant.

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* The social dangers of neglecting the sanitary condition of the poorer classes have been very forcibly shewn by Mr. Rendle.

Since the most delicate tests fail to detect anything like ozone in the air of our crowded towns, we infer that in these places our great benefactor is "used up;" and that without his presence and aid, oxygen itself fails to purify. [Richardson some time ago observed that when oxygen had repeatedly passed over dead and decomposing animal matter it lost its power of oxidation.] We may also infer that, in these conditions, deadly germs, carrying specific diseases, or their essences, may float in myriads about us, multiplying and safe from destruction,—save when, happily for us, that unseen mysterious Being rushes down in the track of the lightning-flash, or rides by on the tempest, or gambols in the light spray of the sea-breeze. There may be yet other substances besides oil of turpentine (an antozonide, according to Schönbein's ingenious theory) which may as effectually annihilate ozone, and may thus be ever at work to cut short our natural supply of oxygen.

In the growing compression of human masses and animal life, (I speak metaphorically) may there not be evoked a demon of uncleanness and corruption strong enough to quench the spirit of burning and of purification? Practically, then, the most essential measure of sanitary legislation and administration would be not merely to purify as far as possible the air of towns, but also to provide better air than towns now supply to the people. These objects may be accomplished by three methods:—speedily removing all the *débris* of animal life, and everything which by decomposition can corrupt the air; promoting the free circulation of air into every quarter, through every court and alley, into every house, every room, in the inhabited area:—in a word, Ventilation; enabling every person to breathe a sufficient quantity of pure and good air, *i. e.*, air having the properties of ozone.

Our sanitary laws if properly carried into effect, which they are not at present, may secure the first object.

The second is a very vexed question. What is sufficient ventilation; and how is it to be obtained? The verdict in each case must depend on circumstances which in different cases are most diverse and complicated; for on the particular temperature of the climate, the season, the house, the workshop, the chamber, depends the demand for the more or less rapid circulation of air. In winter, or at night (exhalations being more readily condensed in cold air), several persons might remain not seriously injured in a room, the atmosphere of which would be dangerously vitiated by one person in a hot summer or within the tropics, when and where the exhaled organic matter is volatilised and thus prepared for quick re-admission into the living body.

The question of temperature is so intimately connected with that of air-circulation, that a long and complete series of scientific observations, in a great variety of places, would seem to be necessary to frame even elementary formulæ of ventilation. If old-fashioned people are more anxious to warm their houses and rooms than to secure purity of air, advanced sanitarians are perhaps sometimes too eager to ventilate without sufficient attention to warmth. Both extremes may be avoided. An authorised allowance of cubic space might be insufficient for healthy existence, without the introduction of currents of air so swift as to injure the weaker inmates of the house. Women, children, and the sick especially, would then be the chief sufferers. Should any one desire to see what an amount of discrepancy may arise in a controversy on this subject, let him examine the Report of the Commission, appointed by the President of the Poor-law Board, on the Cubic Space necessary for the inmates of workhouses—one of the most useful contributions to the sanitary literature of the past year. If the report itself sometimes betrays the weakness of a compromise, the memoranda attached to it, containing the views of high authorities and original thinkers, are of immense value. Among these is a spirited discussion between Professor Parkes and Dr. Angus Smith, (both mighty men—"*fortemque Gyan fortemque Cloanthum*") in which both have brought forward so many weighty arguments that it would be presumptuous in me to attempt to decide between them. As far, however, as military hospitals are concerned, I think my friend, the Netley Professor, has established his case.

But, in crowded cities, the free circulation of pure air is simply impossible. The air outside the house, *i. e.*, the air to be admitted for ventilation, is often, as we have seen, only a few degrees less vitiated than the air to be expelled. The air, which sustains the life of 200 or 300 persons on every acre of a large district (including, for instance, more than a square mile), can never act properly upon effete organic matters; while invading currents of air, from the open suburbs, very rapidly lose their power to oxidise.

Existing legal provisions against overcrowding in single houses and rooms—good as they are and better as they might be—only touch the surface of this tremendous question. Over crowding, when prejudicial to health, is now defined to be a "nuisance," and so brought under legal action. But who is to judge of the danger to health in any particular case, and by what law? Will the same rule apply to every town? May not a degree of room-crowding be tolerable, and perhaps justifiable, in some openly-built town (as we know it to be in the country), which would be pestiferous in a thick population?

Possibly, by some despotic decree, you might succeed in compelling every inhabitant of a vast city to open his windows. Or, in a scientifically-built lodging-house, you might introduce the most approved appliances, the cleverest air-shafts and valves, the best directed currents. But what, I repeat, if the air which you are so studiously circulating is already vitiated, if it have become a disseminator of poison? Again, as Dr. Lankester and others have shown, if the government formula of 500 cubic feet per head were enforced at once in many districts, the neighbouring parishes would either be more fearfully crammed by evicted emigrants, or the poor wretches must remain homeless vagabonds.

I am thus led on to the third means of obtaining atmospheric purity, viz., the supply of a sufficient quantity of pure air to every citizen. Hardly anything has yet been attempted in this direction, whether by the Legislature or by private enterprise, except in promoting the formation of public parks, and protecting in some small measure open spaces in the metropolis and elsewhere from invasion by house builders. That something more ought to be done in this direction can now hardly be a question, and I am happy on this point to be supported by Mr. Simon, who in 1866 advised that where it might be necessary to purchase and destroy the poorer dwellings as unfit for human habitation, the local authority should provide equivalent new dwelling space in the suburbs of the town.* (Eighth Report, p. 17.)

It is true that some legal facilities for the purchase of land, *e.g.*, power to borrow money of the Public Works Loan Commissioners have been granted, under the Labouring Classes Dwelling Act of 1866, to local boards and voluntary associations; and it does not appear that the land to be purchased must necessarily lie within the overcrowded boundaries. But I hear that this Act is almost inoperative.

Again, the Artizans and Labourers Dwellings Act of the last session is very unlikely to provide a cure for the evils of overcrowding. This enactment (approved by some, but not generally understood) seems to be open to the following objections. The operation of the measure is confined to those places which throughout the United Kingdom (except in the metropolitan division of England) are isolated by town boundaries from the general population of the country. The whole burden and cost of its execution, with its compulsory purchases, demolitions, and reconstructions, are imposed wholly on the most suffering groups of population, and its administration is left to the local authorities of the most crowded localities. The operation of the Act being limited to places containing not less than 10,000 inhabitants, the smaller towns, with the districts under boards of guardians, are under no such responsibility, with regard to labourers' dwellings, as are towns with the specified population.

Yet the reports of the Medical Officer of Privy Council, that of Dr. Hunter especially, prove the extreme necessity for a sweeping reform in the house accommodation of the poorer classes in rural districts. The extreme of error in this Act is attained by the provision which commits, almost unconditionally, the choice of sanitary advisers in this matter to bodies containing in force the representatives of the owners, tenants, and ratepayers of these places. Thus duties of no common difficulty in the way of inquiry, report, etc., may be entrusted to ill-informed, dependent, and unlearned persons, although questions of high scientific moment are often involved in such investigations; and therefore the thorough qualification and official independence of the reporters should have been a chief concern of the Legislature. The amendments, good in themselves, made in this measure by the House of Lords do not touch these weighty points. The rights of a life-tenant or owner in fee, the possible injury to proprietary interests, seem to have been considered matters of greater importance. Far be it from me to question or even to doubt the humanity, zeal, and sympathy for the working-classes which actuated the framers and promoters of this enactment. It is, moreover, a great thing to have obtained from the Legislature some recognition of the principle that the dwellings of the poor ought no longer to be left to the chances of uncontrolled employment of capital. So we must hope that this is only a tentative measure, and that the necessary corrections and extensions may be speedily made in an Act which, I confess, appeared to me at first like a great sanitary sham—and which, even now, unless it be amended, will prove, so far as it may operate, seriously obstructive to a rational system of sanitary organisation.

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* Mr. Beggs has well shewn that increased facilities should be afforded by Parliament for the development of Freehold Land and Building Societies, so as to enable the working classes to provide themselves on the co-operative principle with extra-urban dwellings.

State governments, concerned only with the immediate interests of trade and commerce have, inconsiderately or unknowingly, permitted the growth of aggregation, without making any adequate provision for the safety of the thickening populations. On the State, therefore, as I venture to conclude, rests the responsibility of taking the initiative, and, in some degree, lightening the local burdens by a really permanent and efficient reform—such as would extend town areas, by a gradual distribution of their poorer classes, over larger surfaces of land. If, by the adoption of this principle, some boundaries of feudal origin might have to be superseded, some antiquated divisions and political restrictions to be removed, the gain to the country might be still greater.

By state aid, I do not mean advances out of the national funds. The capitalist only requires some security for outlay upon undertakings which, though vast, are really prudent, and ought to be ultimately remunerative. A public guarantee for the payment of moderate interest upon private or corporate advances, or a charge upon the county rate, would surely provide more than the required capital, the repayment of which need not be limited to forty years, as it is in the Act to which I have before referred. The benefit of a larger measure would be enjoyed chiefly by the next generation: why, then, should the present be required to bear the whole responsibility? If the creation of a permanent "stock" were undesirable, might not ultimate repayment of capital be limited to a century? Slow, of necessity, must be such a process of social reconstruction, but every step taken by the legislature for the better house-accommodation of the poor ought, I think, to keep in view the *enlargement of inhabited areas.*

In reply to some minor objections still urged against the adoption of this principle; I would observe that proximity to work and the labour market, in these days, is measured by time rather than by space. The labourer within a mile of his work may require a quarter-of-an-hour to walk to it. Give him a cheap railway, and he may travel from five to eight miles in the same time; that is, he is practically as near to his work as though he lived within ten or fifteen minutes walk of it. But, we are told that railways are either wanting or unavailable; that existing companies will not come to terms; and that new companies would not pay. To all this I reply—if the wealthy classes are still to be at the mercy of a railway despotism at all events let the working-man be freed by some public measure, which would enable him to get quickly out of town, by railway, at a low fare. Let him, at least, have the option of breathing fresh air, of resting his weary eye upon the green of nature, of scenting the newly up-turned earth, of growing his vegetables, and of housing his wife and children afar from town abominations. How long, I ask, is the suburban residence to be solely the luxury of the monied classes?

There can be no doubt of the financial economy of the principle. The railway ticket, plus the rent of a cottage, with from five to twenty poles of garden ground, need not equal the present cost of a stifling lodging on a flat of some old house in a dark street, reeking with moral and physical impurity; or amidst heaps of manure in some mews, impacted between the backs of lofty town mansions; or even of the rent of rooms in some vast block of model lodgings. The saving of health, the prolongation of life, would be clear gains in the financial comparison. There will always be, I grant, a mass of unemployed labourers, waiters on Providence, who must reside as closely as possible to the labour-markets—to the wharves and docks of great ports. But how much less expensively, and more safely, might this class of labourers be housed on the very spot, if the other class, in constant work and able to leave town for their villages, were no longer to compete for the miserably small living space within the town precincts. For those who are compelled to dwell in these centres, a greater number of well-contrived blocks, such as are now raised by societies and philanthropic individuals, may be found necessary. But their site, distribution, height, and proximity, should be subject to safe municipal regulations. They should not be allowed to be erected on improper or unhealthy sites, as they sometimes have been, nor to obstruct the free circulation of air. If the required extension of inhabited area should be practically impossible in the case of London, that huge exception to all known methods of local management, we may surely beg the metropolitans, kindly, not to interfere to prevent the principle from being carried out where it may be practicable. Professor Kerr's plan for a simpler and humbler class of dwellings to shelter the lowest of the poor commends itself to public favour. No doubt, when the people are more generally and more rationally educated, when useful facts of elementary physiology are taught in our primary schools, they will not fail to appreciate as they ought the superior advantages of an out-of-town cottage. I pray that the opportunity may be afforded to them.

Surely, then, we need not speculate upon bringing mountain or sea air, by enormous pipes, into town centres. Shall we not more wisely, and with due regard for existing interests, promote legislative provisions for the judicious distribution of the labouring classes over wider areas of habitation?

II. WATER:—the flowing, sparkling, refreshing, and cleansing element—second only to air as a necessary of life, and bounteously supplied by nature in abundance and wholesale purity—has been long subjected to grievous neglect and outrage. The natural rights of the dwellers upon land to the water it furnishes have been usurped by monopolists, individual or corporate. That which we might call *feræ naturæ* has been seized, imprisoned, and sold to those who could afford to buy it—withheld from the poor, yet wasted by its proprietors and consumers. Then the original sources of water have been neglected, and sometimes suppressed, the channels of its natural flow injured and obstructed, the banks of its courses abandoned to decay from natural causes, and to reckless wear and tear by unregulated industries; while the streams themselves have been deliberately converted into disseminators of poisons to the riparian populations.

But before I touch on the injuries which man has inflicted on water, and has been forced to receive back again with ruinous usury, I would remark on the serious diminution in the natural supply of water going on in most parts of this country. As the land has become more thoroughly disforested and drained, for social and agricultural purposes, the water from springs (whether surface or subsoil), and from ponds and marshes, has, of course, passed more rapidly off and through the drier soil, into main channels and rivers. Less having soaked into the soil, less rises in vapour; there is less of cloud and mist, and therefore a decreasing rainfall.

Professor Ansted, in a recent masterly essay (*Royal Agricultural Journal*, 1866, p. 62; 1867, p. 65), has shown how universally these changes are progressing in civilised countries, and how important are their effects upon supplies of water. Whether or not, in the coming golden age of science, man will be enabled to call down rain at will—as has been lately predicted by my accomplished predecessor in this chair—it is certain that man can both diminish the annual rainfall in most places, and can again restore it. Unquestionably he has diminished it, in some regions, to an extent which threatens the safety of great communities. Yet improvements in agriculture, producing a drier and more tractable soil in plains and valleys, with a thorough drainage of fever-breeding marshes and fens, cannot be otherwise than beneficial to any country—provided the hill sources of water are protected. The real redress, for the growing evil of which I speak, is, in the first place, to preserve, with more sedulous care, the great natural reservoirs of our water supply, the elevated sponges, of those mountain and hill ranges, which are the marks of our watersheds and points of attraction for atmospheric moisture. These high sources of running water—sources which are too hastily assumed to be perennial, yet which have kept our great rivers tolerably full during the longest droughts—are lessening in produce in many districts. The wild rills, which, within the memory of a generation or two, used to dash and leap down the hill sides, are now too often things of the past, only fitfully running after a storm or long-continued rain. We know both the fact and its cause. The "heights," from and under which the streamlets sprang, were once "wood crowned." They are now bare. The forest and brushwood of old, with their accompanying herbage, which largely condensed the mists floating upon the hill tops, which retained the moisture, allowing it to ooze through porous rocks until held for the service of living creatures, by some impermeable stratum, and which checked rapid evaporation from high ground and thin soil exposed to sun and wind—have been felled. On the western ranges, summit after summit has been cleared of wood. The proceeds of the wood sales may not have been dissipated, but much of the hill water—the natural wealth of the region—has disappeared. These results of forest clearing are yet more manifest in other parts of the world. The diminution of rain-fall in the Canary Isles is, perhaps, as apposite an instance as any of those adduced by Professor Ansted. The failure of water in the plains of Central India, from the same cause, has now, we learn, arrested the serious attention of the Indian Government, and some of the hill sides are to be replanted. In this country, the effects of the hill-clearing are felt, not only by agriculturists, but (what is more directly to my point) by those who now endeavour to obtain improved supplies of water for the great town populations, spreading over plains and valleys. Another cause of the diminution in the flow of streams, as well as of their waste, is the prevailing neglect of their channels and of the grounds immediately adjacent. Obstructions of various kinds are permitted to form and grow from the refuse of mines, manufactures, and commercial processes, raising the river beds with silt and indurated deposits, destructive alike to animal and vegetable life, and subversive of the purifying functions of running water. These evils are accompanied by greater liabilities, both to floods and to water-logged land.

Happily this great subject is now being comprehensively and judiciously handled by the eminent men who constitute the Royal Commission on river pollution, and who are adding to our sanitary literature reports of immense value. Some of their recommedations, bearing on sanitary administration, deserve most particular attention. Already we owe to that Commission the Thames Conservancy Act of 1866; and we are thus encouraged to hope that every watershed and river basin will in time be brought under a body of able and intelligent conservators. A scientific administration of the entire valley of the Thames, under this Act, may effect much, if not all, that was anticipated by my friend, Dr. Acland,* to whom chiefly, I believe, we owe the origination of measures now in progress for the conservation of rivers. But in mentioning leaders of this movement, it would be ungrateful to omit one, no longer among us, though still living in our hearts—the father of our founder—who contributed to our first meeting (and in this town) an admirable paper on the condition of the Severn. The Thames Conservancy Act is, indeed, a great step in sanitary legislation, for it recognises the necessity of extending the areas of administration, in conformity with the natural topography of the country. Before passing on to another topic, I would ask whether it might not be advisable by special re-adjustments of local taxation to encourage the planting and growth of timber on the bare hills of the West and North of Great Britain. The sources of water thus decreasing, do we, as a people, take the greater care of that which nature still beneficently provides? Just the contrary. Within the last thirty years, almost all the water-courses of the land have been incorrigibly defiled, and even converted into distributors of disease, by measures of town sewerage contrived hastily and executed unscientifically. So eager were most of our earlier sanitarians to get rid, at any cost, of human refuse, that, without due consideration of the possible results of the methods adopted on the future water-supply of the people, they rashly advised the pouring of abominations of all kinds into the nearest water-courses—having first rendered subsequent measures for the recovery of what was truly valuable in this so-called refuse almost impracticable by diluting it with floods of precious water, both that which had been artificially stored at enormous expense for town distribution, and the natural rain-fall. In vain did a few physiologists and scientific agriculturists protest, for various reasons, against this rash dilution and wrong disposal of organic matter. The skill and enterprise of our great civil engineers, supported by the energy of leading sanitary reformers, were triumphant. The effete products of manufactures and trades, the animal and vegetable *débris* of towns, mineral detritus, all that comes under Lord Palmerston's celebrated definition of "matter in the wrong place," was to be got out of the way by water-carriage, which was assumed (and not without reason) to be the most expeditious and economical mechanical power for the purpose.

The result of this remarkable movement was, however, that communities have had to encounter a more gigantic difficulty than at the very beginning of sanitary reform. To glance at some of the perplexities and losses which followed. There were fish in the rivers, good for food, but they might take their chance; so, being deprived by decomposing nitrogenous matter of the oxygen naturally existing in the water, they all died. There were human communities down the stream, some in arge towns, many in hamlets and villages, who cried out for drinkable water; well, they were advised to filter the river-water, or to boil and then aërate it; or if all this were too troublesome and expensive, they might sink wells or tunnel the nearest hills for a safer supply. No subtantial relief, no help was afforded them.

But there were also landowners and large occupiers with riparian rights on the land through which these streams, shamelessly converted into open sewers, flowed. These, at last, found their remedy in the old laws of the kingdom, laws which had not become obsolete, prescriptive rights which had not been invalidated by recent sanitary enactments. Accordingly, boards of health (so called) have been restrained by injunctions issued by the Court of Chancery from discharging their refuse into the streams in question. These prohibitions have multiplied; and some places, as Banbury and Tunbridge Wells, have suffered sequestration from disobeying the injunction. Municipal authorities throughout the country have, therefore, now to choose between leaving their towns undrained, in contravention of sanitary enactments, suffering legal penalties for draining them into rivers, or making very costly experiments upon sewage, in the hope of satisfying both liabilities. There is, as a leading journalist says, a "sanitary dead lock." Meanwhile, the inhabitants of both town and country are, in numerous places, calling out for pure drinking water. Water there may be, perhaps in plenty—

> "Water, water everywhere,
> Nor any drop to drink";

for it has become sewer water!

Now, excepting certain first-class towns in the north, and especially on the older geological formations, where the water-supply is pure and abundant, it is indisputable that the condition of drinking water in most parts of England is deteriorating. Village supplies are very generally scanty and bad. And here, I may digress for a minute, to note the great advantage which might accrue to scattered populations from the use of Norton's American Tube Wells, which economically tap the subsoil strata to a depth of from ten to thirty feet. Everyone knows how valuable they proved in the Abyssinian expedition. They possess the sanitary advantage of testing the quality of the water issuing at different depths in the same boring; and they may be used, I think, as registers of fluctuations in the level of the subsoil water.

To return—complaints of town supplies are on the increase. I may take one instance of many. Scarcely more than a year ago Professor Frankland reported of the Lincoln supply, that not one of the three samples sent for his examination was fit for domestic purposes, that they were all excessively hard, and that one was frightfully contaminated with sewage. Even at Croydon, the pet specimen of drained towns and sewage utilisation, the water supply is complained of as deficient and intermittent. In these and other towns where the supply is short and of very indifferent quality, the community has no protection, no redress. The water monopoly entrenches itself behind its statutory rights. The ground being preoccupied, no rival undertaking has a chance. And there is no law to compel the water-traders to surrender their monopoly on fair terms of sale to the public. I agree with Professor Gairdner that, wherever water has become a matter of private sale or barter, there has been a dereliction of duty on the part of the community, represented by the local authorities.

A constant supply at high pressure is rare in the South of England. Yet Mr. Beggs informs us that there are about one hundred and fifty towns in England which enjoy the benefit of a constant water supply. It has now, therefore, been proved to be practicable. Its sanitary advantages are unquestionable. The entire abolition of cisterns and water-butts in houses would be a reform scarcely inferior to the abolition of cesspools. The change by no means involves a loss of water. For instance, in Hull, where half the town is supplied on the intermittent, and half on the constant, system, the waste is found to be greater in the former. In Manchester, the adoption of the constant system has resulted in a saving of seven gallons per head daily. Of course, on this system, due precautions must be taken to prevent waste; *e.g.*, by taps and water fittings of the best construction. A recent most useful pamphlet, circulated gratuitously by this Association, contains evidence, especially that of the eminent civil engineer, Mr. Bateman, which settles both the practicability and the economy of a constant water supply.*

I have it, on Mr. Liddle's authority, that in the Whitechapel district, the machines called water-waste preventers have been in operation for several years, and answer perfectly their intended purpose, so much so, that the East London Water Company is desirous of promoting their use. The relation of water-supply to the prevalence of certain forms of zymotic disease is a question far too wide to admit of more than a few currory remarks. Yet I cannot avoid noticing two very remarkable instances of this connection, afforded by the events of the last two years.

1. After the clear light which has been thrown upon the history of the cholera epidemic in the eastern parts of the metropolis in 1866, first

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* Acland on the *Cholera at Oxford*, p. 114. See also Tenth Report of Medical fficer of Privy Council, p. 18.

* The case of Glasgow may perhaps be cited by recusant water companies as evidence of the wastefulness of the system. It appears that nearly forty-seven gallons per head are daily consumed in that city; more, probably, than in any other place. The citizens of Glasgow ought to be remarkably clean. Perhaps Dr. Gairdner can favour us with some explanation of this apparent anomaly.

by the weekly statements of the Registrar-General, fortified as they were by Professor Frankland's analyses; next, by Mr. Radcliffe (checked as the form of his conclusions was by the cautious logic of Mr. Simon, who nevertheless accepted the substance of those conclusions), and now by the luminous and exact records of Dr. Farr—it is not too much to affirm that the most destructive force of that epidemic was spent upon the area supplied by the East London Water Company. We cannot go into the disputed points of that elaborate controversy, for it would not then be fair to ignore the counter statements and arguments of Dr. Letheby and Mr. Orton. But, explain the circumstances and events as one may, there are broad facts which remain undisputed. I need only mention the following.

The deaths from cholera and diarrhœa in the field of this water-supply amounted to 89 in a population of 10,000, while in no other single company's field, north of the Thames, did such deaths amount to more than 18 in 10,000. Taking the reported deaths from cholera only, the mortality in the East London Company's field was nine times as great as in the New River sub-districts, and twenty times as great as in the North-Western sub-districts. "Of the total mortality of 5,915, no less than 4,276," says Mr. Radcliffe, "occurred in the east district of the metropolis and adjacent suburban districts of West Ham and Stratford. Immediately prior to the outbreak" in those districts "impure water was known to be distributed over this field of supply. Neither the meteorology of the period, nor altitude, nor the nature of the soil, nor density of population, nor filth, nor the state of the sewerage, nor locality, affords any explanation of the peculiar localisation of the outbreak, in the east districts. There is but one condition known which might become capable of propagating cholera, common to the whole area of the outbreak, namely, the water-supply."

2. Other most confirmatory evidence of the connection between zymotic disease and water-supply is furnished by the outbreak of typhoid fever in 1867, at Guildford. The fatal force of the epidemic fell upon that portion of the population which dwelt on the area, supplied by what is there called the "high service reservoir." From this tank was distributed on a particular day—such was the horrid fact—actual sewage matter, which, owing to some engineering defect, had leaked into the well supplying the reservoir. "No other condition," says Dr. Buchanan, in remarkable correspondence with Mr. Radcliffe on the East London cholera, "on careful and detailed inquiry is at all coincident with the outbreak of fever."

Again, Dr. Stevenson Macadam's report, at our last anniversary, on the relation of disease to the water supply of certain populous places in Scotland, shows plainly enough that the ravages of cholera were coincident in time and place with the use of water from impure wells. But on this point, as on many others, the reports of the medical officer of Privy Council are full of facts and recommendations, which I cannot now even enumerate; yet all of the utmost significance and value. Mr. Simon has especially dwelt, with great force, on the moral responsibility and legal liability of water companies, and has pointedly suggested that the distribution of fouled water by a local board or water company is a proper case for judge and jury, on a claim for damages, by any of the persons injured by its malfeasance. He is of opinion that, whatever latent liability of this kind may exist in our law, explicit legislation is required. If loss of life or health be clearly proved, there can be no reason why claims for compensation should not be made upon a company of water purveyors, or upon a board of health (acting either as water providers or sewage carriers), as well as upon a railway company.

A most instructive discussion followed upon Dr. Macadam's interesting paper on river pollution, in this department at Manchester, where we had the advantage of hearing Lord Robert Montagu's clear summary of the question, and Mr. Rawlinson's able comments on the practical working of various experiments. The River Commission has to some extent endorsed the principle of the resolution carried on that occasion, recommending a prohibitory legislation against the pollution of rivers. Should the legislature proceed in the course it has wisely commenced, and determine eventually that no natural stream of water shall be defiled by the refuse of towns, mines, or manufactories, we need not doubt that adequate and remunerative methods will be discovered for safely disposing of them all, and thus maintaining our rivers as distributors of life, health, and pleasure to an increasing and prosperous population. In the discussion just referred to, it was conclusively shown that prohibition of this kind had fully answered with respect to gas works, and that the principle had been, and might further be, advantageously applied to lead, copper, and tin mines, as also to the principal manufactures.

Now, it has been clearly established, that the particular defilement of water, which is most dangerous to the public health, is that caused by putrescent animal matter, which has either passed through town sewers, or percolated the soil, and in both cases has led to contamination of drinking-water. Sanitary reformers have, therefore, to consider, in the first place, the case of towns which are committed to the modern sewerage system, of which the metropolis is the grand exemplar, and which, in the aggregate, have spent many millions sterling upon their cyclopean constructions.

The only practical question here, is—what is to be done with the results? It is almost childish to propose to abolish that system, and to commence *de novo*. From analyses made of the earlier results of filtration, we might conclude that not less than six-sevenths of the really fertilising elements of town sewage remain in the fluid which has passed through the strainers and tanks of outfall works. Besides the injury to health and life caused by allowing this foul water to escape into rivers, the means of augmenting and cheapening the food supply of a teeming and needy population, have been wantonly wasted.

With regard to the sanitary injury, it is true that, given a sufficient time, sufficient length of currents and sufficient aëration of river water, the greater portion—and how much is not exactly known—of the dissolved and suspended poison is consumed by the oxygen naturally existing in the water, and constantly renewed from the air. This is another of those beautiful provisions of nature which one cannot pass by without thankful acknowledgment. The burning power of oxygen, so wonderfully active in the air, is almost as surely, though far less quickly, efficient in running water, provided the quantity of refuse thrown into the stream is not enough to extinguish the combustion. It is therefore a matter of the utmost importance not to tax the oxygen of water unduly. Oxygen being far more soluble in water than nitrogen, it is well for mankind that the air contained in running water should consist of nearly double the proportion of oxygen which the atmosphere holds. This bountiful provision of oxygen seems as though it were intended to compensate in part for the slower combustion of dead and decomposing organic matter in water. A remarkable proof of the gradual extinction of the burning, by the corrupting principle, was furnished in the Thames at the height of its pollution by London sewage. Professor Miller tells us that in 1858, the river water at Kingston showed oxygen in normal proportion; at Hammersmith the ratio had sunk to half; at Somerset House to one-fifth; and at Greenwich and Woolwich the oxygen was almost annihilated. The friendly elemental fire was quenched! Corruption had triumphed! The naturally purifying action of aërated water has thus its limits and its fatal counteractions. Neither can it be trusted when the contamination is of a peculiarly fatal character. It is the quality rather than the quantity of organic matter which determines its danger. We are, as yet, quite ignorant of the degree of tenacity of life possessed by the germs of specific diseases. The proportion of nitrogenous matter, as determined by the chemist, does not even mark clearly the distinction between what is putrescent and what is not at the time decomposing. Still less does it tell of more recondite organic constituents.

"To look for a specific test for miasma in water is absurd," said Mr. Tichborne, in a recent remarkable physiological paper;* "there are certain subtle substances of intense power which are physically unrecognisable—substances that, so far as we have gone, no balance can weigh, no microscope can see." That pretty and popular test, the permanganate of potass, though useful enough for demonstrating the loss of oxygen in water, and indicating, roughly, though serviceably, the unwholesomeness of water, has been shown to be untrustworthy, for determining the proportion of the worst forms of organic matter. Nor does the apparent completeness of the burning work of oxygen in water, as manifested by the presence of nitrites, or nitrates in the clear, cool, sparkling, yet treacherous water of certain town wells, prove that the most dangerous ingredients have been destroyed. Well-known facts of disease and mortality among the drinkers have proved that it still exists.

We come, then, to the only known and reliable method of dealing with this hideous creation, Town-Sewage, which we have formed, as Frankenstein did his friend, by dabbling with decomposition, a monster which, like his, may shorten our miserable days, unless we bury him in the earth—our fourth element. Metaphor apart, the distribution of this pernicious yet precious sewer water, over the land by irrigation, within safe and accessible distances from our large towns, appears to be indicated as the best cure for the evil, and it has now been proved to be both practicable and remunerative; at least, in all those places where irrigation can be accomplished by gravitation.

III.—Thus we arrive at EARTH, the matrix and birth-place of elementary forms and germs of living beings, where they lie dormant and apparently dead, until roused into action by water or air, or both; action which may be either beneficial or pernicious to man, according to the origin of those seminal principles. The marvellous properties of earth, especially of the aluminous soils, in arresting, fixing, and assimilating, the nitrogenous and ammoniacal constituents of dead animal matter, point out earth as the proper destination of sewage, wherever it can be so used. For this conclusion we are mainly indebted to the researches and experiments of Professor Way, eighteen years ago. The poorer soils, consisting chiefly or wholly of gravel, sand, silica, or shale, may be, as they have been, converted from barren wastes into productive farms. This kind of land seems capable of absorbing almost any amount of sewage. The well-known case of the Craigentinny Meadows, near Edinburgh, a sea-beach in pre-historic times, and worthless in a commercial sense, until treated with the sewage of the town, has settled that question; although the rough and very disgusting methods, adopted at Edinburgh, have tended to bring sewage irrigation into disfavour. And now, the Maplin sands on the Essex coast, are performing the same duty for the filthy flood of London; and seem likely, *pace* Baron Liebig, to receive the like benefit. But it would be wrong to rely on the disinfecting properties of sandy and gravelly soils. They have not proved their capability of decomposing nitrogenous organic matter, or of fixing its elements in vegetable growth. They cannot, therefore, be depended on for the completion of that marvellous cycle of life, that adjustment of the balance of organic nature, which Dumas and Boussingault long ago demonstrated as essential to the existence of plants and animals—that "eternal round in which death is quickened and life appears, but in which matter merely changes its place and its form." (*Dumas*, p. 48.)

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* Read in the Physiological Section of the British Medical Association at Dublin.

I would gladly avoid the details of utilisation of sewage, a subject which involves both water and earth, and which has now a voluminous literature of its own. But some further notice of the question seems almost inevitable. Recent disposals of town sewage by irrigation at Banbury, Warwick, and elsewhere, seem to promise grand success, after the failure of all chemical nostrums; success, both in arresting the reflux of impurity into the river, and in producing rich crops of various kinds. But I beg to offer a few words of caution with respect to the multitude of schemes, now pretentiously advertised, for treating town sewage with chemicals, with the object of precipitating and solidifying its organic constituents for agricultural use, as dry manure. I am not aware that hitherto any of the projects have succeeded financially. The undissolved matter of town sewage contains, we are assured, only about one-sixth or one-seventh of its fertilising elements. And all plans of this kind involve this enormous disadvantage, that the more perfect may be the separation and precipitation of the suspended (or, perhaps, dissolved) matters, the less available does the fluid become for any useful purpose, and therefore the greater temptation is there to allow of its escape into water-courses, which ought never to be permitted until we have obtained satisfactory guarantees for its thorough disinfection.

There is, indeed, one tried process—and others may yet be discovered—which are not open to these objections. Dr. Bird's plan of precipitation, submitted to the York meeting of this Association in 1864, and for three years past in partial operation at Stroud, deserves a more extensive and thorough trial. It consists in the application of what he calls Sulphated Ferruginous Clay, both to the solid and fluid portions of the sewage. It is said, on good authority, to furnish a compost which does pay the manufacturers and does succeed in procuring a marked increase of agricultural produce. But, to sanitarians, the main recommendation is, that it is based on the scientific truth, already noticed, that water charged with organic matter is chemically purified by filtration through aluminous soil. If, by the advancing perfection of this process (of which a scientific writer has just informed us) the effluent water should become so nearly pure, as not to be worth the cost of distributing by irrigation on land; yet, if it cannot be proved that this water has been freed from noxious germs so as to be safely used for domestic purposes; (*Lancet*, September 26th, 1868,) the town authorities, or the contractors, or both, may still find themselves in an awkward dilemma. A less favourable criticism may apply to a more recent scheme, the A B C process, as it is called, which professes to be based on the Chinese principle, of applying an aluminous compound to excreta. It has already been tested, with some promise of success, at Leicester; but even the last and most favourable statements (*Times*, August 25th,) shew that more then ten grains of organic matter remain in each gallon of the water after the A B C process, while in the last report of Dr. Bird's aluminous treatment, the volatile and combustible matter seems to have been reduced to less than two grains.

Now, should none of these ambitious processes succeel in absolutely clearing sewer water of deleterious principles, even if proved to be financially profitable;—should the nymph of the sewer, like other chronic invalids who have been dosed with a variety of drugs, find that treatment by quacks and patentees does not restore her to health and purity, she must still carry her foul stream, rich in its nitrogenous, and not wanting in its phosphoric, elements, to the broad acres of the landowner, there to augment the food supply of the people. The problem will then be solved, at least for those places which are irreversibly pledged to the common-sewer system.

From the evidence already in our possession, and on reviewing many conflicting statements, it may, I think, be fairly inferred, that in the use of fluid sewage for land irrigation, the following sanitary conditions should be observed. An extent of land surface should be obtained, which shall be sufficient, under engineering direction and proper precautions, to absorb the whole of the fluid in dry weather; sufficient to decompose and fix its organic constituents; sufficient, again, to prevent atmospheric pollution; sufficient, also, to admit of long intervals between the periodical applications of the fluid to each portion of the surface; and, therefore, sufficient to promote a succession of crops, roots, and cereals, so that we may hear of something better, on good soils, than Italian rye-grass. To secure the fulfilment of these conditions, and on physiological grounds generally, though perhaps not in accordance with eminent engineering authority, I suggest that not less than an acre of clay or loam be secured for every thirty or forty of town population. If sand, gravel, or silica constitute the bulk of the soil—these admitting of a far larger proportion of sewage on the same area—the effluent water should not be allowed to enter any stream which may be needed for domestic use, until it had been disinfected by scientific and approved methods.

Before dismissing the question of removing town-refuse by means of water, I would say that the system so well planned and ably described by Mr. Menzies deserves a complete and careful trial. It seems to be the first reasonable and practicable proposal for carrying into effect the famous alliterative dogma of Mr. F. O. Ward—"The rainfall to the river, the sewage to the soil." It accordingly promotes economy in the use of water. It also embodies the principle of upward filtration, first suggested by the wise and good Prince Consort. By substituting Dr. Bird's aluminous compound for the doubtful disinfectants suggested by Mr. Menzies, his plan of filtration would be vastly improved. I believe that, in a large proportion of the yet unsewered towns, a skilful combination of the measures proposed by Dr. Bird and Mr. Menzies might be very advantageously adopted.* At all events, in those towns and villages which are not yet hopelessly involved in the difficulties of the water-carriage arrangement, the local authorities would be fully justified in pausing until repeated scientific experiments (which, I agree with Dr. Child of Oxford, ought to be aided by Government) shall have determined, as far as possible, the comparative merits of the several rival systems. But, if threatening dangers demand immediate action, these places had better adopt that most ancient method recently revived, in which earth is brought to the matter to be disinfected in its primitive condition, instead of carrying that matter, in solution and suspension, to the earth. The mighty power of certain soils, to which I have already referred, not only to deodorise, but to abstract from decomposing animal matter those elements which may be assimilated by the roots of plants, leads to the conclusion that the Jewish legislator proclaimed the most philosophical, as well as the most practicable and profitable, expedient. Had his sanitary regulation been religiously and discreetly observed by the inhabitants of Jerusalem, under the monarchy, they might have preserved the Valley of Hinnom from pollution as the laystall and common cesspool of the city, and thus perhaps have prevented that strange use of the perpetual fires of Hinnom in which, as some learned commentators say, abominations of all sorts were burnt and reduced to ashes. This cinereal method of dealing with animal remains is not likely to find favour in England, unless, which God forbid, another cattle-plague should break out.

It is, then, an ascertained fact that, by covering the matters in question with dried clay, marl, or peaty loam, their volatile and nitrogenous constituents are at once fixed, and, with their phosphates, are slowly assimilated by the earth. The deodorisation is perfect, because it is the result of complete chemical change. The compound resulting from this mixture becomes, in a few weeks, an uniform inodorous earth, again capable of performing the same digestive functions; and this process may be repeated several times by the same mass of earth.

The success of the experiment appears to depend on the dryness and separateness of the particles of soil, allowing the air, with its oxygen, to penetrate them freely. The disinfecting quality of ordinary *humus* is, I need hardly say, quite distinct from the power possessed by sand and gravel of promoting the oxidation of nitrogenous matters in solution. The latter is, indeed, a good instance of mechanical agency. But the former is a more remarkable proof of the provision made by Nature for the chemical arrest of putrefaction, and so for our safety and preservation, if we did but reasonably follow her indications, as the dog and the fox do when they bury their dead prey for future food.

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* Another very clever invention, by a gentleman of this town (Mr. Edward Chesshire), claims our notice. Its principle is to make, by means of intercepting house-tanks, such separation of the fluid and solid matter to be removed as would greatly diminish the subsequent difficulties of disposal and utilisation. It appears, also, to be a sure preventive of the sanitary failures in house drainage, so carefully investigated by Dr. Carpenter of Croydon. The same principle, though by a different method, has been advocated by Mr. Bauncke, C. E., of Exeter.

The slowness of the *eremacausis* in this case, as compared to the rapidity of the change in watery solutions (sewer-water, for instance), depends probably on the more speedy and perfect contact of the decomposing matter with its disinfectant in the latter case. But the certainty of the change is as great in the mixture of the solids, and the permanent benefit seems to be greater. The earth-method has another advantage; viz., that the compound may be safely dry-stored and transported without inconvenience to any part of the country. We therefore revert to our common mother—Earth—in adopting Mr. Moule's invention; and, notwithstanding certain practical difficulties attending on its domestic use—difficulties which may be insurmountable in crowded populations—sanitary reformers are surely right in advising the extension of this method as widely as possible. Its successful use in India, in military encampments, in the Buckinghamshire villages of Baron Rothschild, and in schools and various public institutions, has already established its practicability and value. That the general adoption of the earth-system in scattered populations would tend directly to economise and protect their water-supplies, is no mean argument in its favour.

Whether, while preventing contamination of surface and running waters and vitiation of air, the use of this dry compound in agriculture might possibly in any way injure the soil—for instance, by introducing undestroyed germs of disease, which, in the varying level of subsoil water described by Pettenkofer, might develope into active and dangerous energy—is a point deserving of some consideration. I am not, however, disposed to attribute exclusively to earth the propagation of germs of cholera or other zymotic disease. On Pettenkofer's own theory, if I understand him rightly, water must, in the first place, have been the means of conveying any such specific *contagium* through the soil to the level of the subsoil water when at an unusual height; and then, on its subsidence, when the soil, in drying, becomes permeable by air, the morbific germ could be conveyed to man only by means of evaporation.

The water, therefore, would be the first carrier, the air the second, while the earth would be merely the intermediate resting-place. The practical lesson taught us by the learned professor of Munich consists mainly, I think, in the importance (1) of securing, as far as possible, dryness of soil; (2) of preventing contamination of earth in the immediate neighbourhood of dwelling-houses; and (3) of providing, in the particular process under consideration, a supply of really dry earth. It is with much satisfaction that I can now refer to the full recognition of this method by the legislature in the amended Sanitary Act of last session. I am also glad to call attention to an excellent address just printed by Dr. Newman of Stamford, in which he has had the courage and good sense, while urging the immediate abolition of the abominable cesspools in that town, to warn its inhabitants against the fashionable water-method, and to recommend them at once to adopt the dry-earth system. One caution given by the River Commission (Second Report, p. xiv) appears to be of extreme importance; viz., that the general use of Mr. Moule's contrivance should be placed by the local authorities under vigilant inspection; and this, of course, implies a much more efficient staff of nuisance-inspectors than at present, and more frequent domiciliary visits in poor and crowded localities.

IV.—In the preceding observations on air, water, and earth—as modified by the all-pervading principle of oxygen, representing the old elemental fire—in their various relations to public health and to some recent measures for its improvement, I am well aware that I have already exceeded the ordinary limits of a departmental address. Continual reference to well-known facts in physiology and natural science, may have appeared tedious and unnecessary to one portion of my audience, while certain disagreeable details may have been as distasteful to others. Yet while confessing to have dwelt perhaps too long upon principles which seem to me to lie at the root of all sound sanitary legislation, I cannot satisfy my sense of what is due to you on this occasion, without making, in conclusion, some reference to the practical question of administrative machinery. From a remote period of English history, there have been laws and constituted authorities which took cognisance of matters injurious to the health of communities. Actionable nuisances were condemned in courts of law, and certain public, as well as individual wrongs were vigorously redressed. On such points the old common law of England was very explicit and not a little severe, recognising the right of every man to "fresh and pure air," and to the removal of whatever was deemed unwholesome or even offensive. The common law has often, to the present day, provided a more certain sanitary remedy, in some such cases, than proceedings under modern Acts.

But there were also ancient statutes concerning health. So long ago as the reign of Richard II a curious law for the prevention and removal of nuisances in "divers cities, boroughs, and towns of the realm and the suburbs of them," declared the condition of ditches, rivers, and other waters to be so bad, "that the air is greatly corrupt and infect, and many maladies and other intolerable diseases do daily happen." This Act is said to be only declaratory of yet older common law. (Toulmin Smith, *P. H. Laws*, p. 22, 1848.) The mayors and bailiffs were authorised to administer the Act and to enforce penalties on those who transgressed it. In the times of the Plantagenets, if not earlier, there were Crown Commissioners of Sewers (*Sæ-wœrs* in Saxon, sea-weirs or sea-fences), which were then merely wide and deep trenches, with embankments to protect the land against inundations, whether from the sea or from navigable rivers. Statutes followed under the Tudors and Stuarts respecting the drainage of land. All this shows the care bestowed by Government upon matters affecting the safety of the people in the middle ages. Then there were Courts Leet, relics of Saxon local government, modified by feudal tenure and service, at which any common nuisance might be presented. Both these have fallen into disuse, and are now practically obsolete. Local boards of health are their modern representatives. Justices of the peace in counties, and the chief officers of cities and boroughs, were occupied, centuries ago, during periods of pestilence, in what we should now deem unskilful efforts to protect the health of the people; and those officials have succeeded in maintaining and even strengthening their position as modern sanitary authorities.

Together with the reform and the growth of municipalities, a distinct order of local administrative bodies in sanitary matters, is now established. I need only mention that the Privy Council has long been authorised to interpose on behalf of the public health in emergencies of extreme danger. But it was not until the old Poor-Laws were amended, and parishes were grouped into unions, nor yet until these union districts were made the chief areas for a general system of registration, in which the main facts of mortality and reproduction, and (to a considerable extent) the causes of deaths, were recorded for the whole country,—that the relations of pauperism and destitution, with the sickness and mortality of the suffering masses, were fully brought to light. Not until the new administrative bodies, with their medical and registration staffs, were in full action in these districts, was it clearly shewn, by Mr. Chadwick, in his famous Report on the Sanitary Condition of the Labouring Population, "that the causes of disease and premature death, and the social miseries thereon dependent, might be removed or remedied by a systematic application of sanitary measures. For that full exposition of the principles of an economical and efficient sanitary organisation, based on the Poor-law and registration divisions, the country is greatly indebted to Mr. Chadwick. It is, in my humble opinion, much to be regretted that the framework of local administration then recommended, was not employed for almost all purposes of preventive medicine, as a similar organisation in Ireland has since been utilised.

Whatever might have been the original defects of the areas of registration, when viewed in their relations to physical science, or to vital statistics, or to ancient usages and divisions, they are unquestionably, of all existing districts, the best fitted for sanitary administration; and their boundaries are capable of rectification, a process which, in fact, is always at work. The municipal governments, however, have proved to be too strong a power to admit of a rival organisation of that kind. The towns, *per se*, claimed independent action, and after a few years' struggle between the boroughs and the State, the Local Government Act was passed, which threw overboard the principle of governmental or national supervision. No one can doubt that the Act of 1858 has been of great benefit to many towns and populous places, but I fear that it has sometimes helped to strengthen the obstructives, and it has certainly raised up a host of present difficulties and perplexities in sanitary administration. Again, during the last thirty years, our sanitary enactments of various kinds have multiplied until they form a library, not very easy of reference, and requiring both abridgment and codification.

Notwithstanding the greater degree of precision and effectiveness which marks the Sanitary Act of 1866, and its supplements, the continuance, in the same districts, of conflicting jurisdictions, regulation, and customs, and the existence of many remaining defects and obscurities in the laws themselves, have given a fresh impulse to the sanitary movement, the result of which, I am happy to say, is that a Royal Commission is about to issue, for full inquiry into these matters. Under circumstances so propitious, it might be premature to enter into a number of particulars which I doubt not will be thoroughly and impartially investigated by that commission. Something, however, I have to say. The chiefs of several departments to which various matters affecting the health and safety of the community and of the working-classes are now referred, are undoubtedly alive to the importance of some greater simplicity and unity in central action. And I believe there is a hearty desire on the part of Government to consider favourably the now general demand for the establishment of a single Department of Public Health.

We may hope that in any reconstruction of existing machinery—supposing such to be sanctioned by Parliament—the future central department may include and empower all those distinguished men who have for years rendered invaluable services to the public, under the present fragmentary and inharmonious system. Of authorised local administration I wish to speak with all due respect. And I would preface a few remarks on the area and boundary question, by explaining that they are not intended to apply to the districts either of the metropolis or of the largest cities and towns of the kingdom, such as this, the Metropolis of the Midland Counties. In these vast centres of population, probably, the more pressing necessities of the case might be met by increased facilities of administrative co-operation between the urban and the suburban, and the surrounding rural districts. It is very satisfactory to perceive that, of late years, local governing bodies throughout the country have become more zealous and more efficient, and have creditably accomplished some really great undertakings. But it is impossible to shut one's eyes to certain serious defects of local organisation—defects which hamper and obstruct the most willing efforts.

The main difficulty which almost everywhere meets the sanitary reformer is the existence of so many different kinds of local authority, in all manner of districts, for the execution of a variety of measures, which, if distinct from each other, are nevertheless cognate and often strictly correlative. The Sanitary Act of 1866 itself recognises two orders of local authorities, each containing several genera and species—one order dignified by the name of "Sewer Authorities," the other by that of "Nuisance Authorities." And here I would observe that from this distinction we are by no means to infer that a sewer authority may not prove a grievous nuisance. As sewers, in the modern acceptation of the term, are deservedly losing favour; and as it is undesirable to extend the formation of such sewers to districts hitherto without them, one may reasonably regret that it has been thought necessary to stamp their name upon respectable local authorities. So far as sewers may be concerned with what engineers call the "arterial" drainage of land, they would come under the management of authorities of wider jurisdiction.

Now, there are some singularities, I may say oddities, about these sewer and nuisance authorities, which deserve notice. The Act of 1866, in agreement with former enactments, empowers as Sewer Authorities, the old city and borough councils, other local boards of health, boards of town trustees and commissioners, parish vestries and vestries of new districts to be cut out of old parishes and called special drainage districts —while the Nuisance Authorities are not only the said councils or local boards, but also justices in petty session, and boards of guardians, instead of parish vestries.

Great must be the confusion, if not conflict, arising out of efforts to carry out sanitary measures at all systematically, by bodies having jurisdictions differing in kind and extent—the larger generally including several of the smaller, although the smaller may be empowered to execute more important functions than the larger. The diminutiveness of a sphere of action obviously tends to impair its efficiency. No general method of co-operation between the various authorities contained in areas of wide extent (as, for instance, in divisions of counties) now exists. It is true that some remedies for this admitted defect have been attempted by very recent amendments of the Sanitary Act. The Act of 1867 enables sewer authorities to purchase or rent land for the purpose of sewage utilisation; and while the creation of "special drainage districts" is encouraged, power is given to promote the combination of those districts, and thus to extend areas of drainage;—a principle of the utmost importance as regards the physical topography and geology of a district. But all this is permissive—all depends on the view taken by any local board or vestry of the propriety of such extension.

Again, by the Act of the last Session, the sewer authority is to supersede the nuisance authority, where they are different bodies, in certain matters of disease-prevention. In fact, it is manifest that sewer authorities are getting the upper hand, and are likely to have the best of it. On the Darwinian theory, the weaker, though wider, race of nuisance authorities is in process of extinction, unless in good time, we may shew cause for their preservation. To any sewer authority, out of London, may now be committed, with the sanction of the Privy Council, the power of providing for a temporary supply of medical aid for the poor, as in 1866 the same boards were empowered to supply hospital accommodation for the sick,—yet the public provision of medical relief to the poor throughout England has long been committed to Boards of Guardians, which are now held, by the Sanitary Acts, to be only nuisance authorities. In this matter, then, as in others, two kinds of authority, in the same area, are empowered to execute the same description of measures!

A large party of sanitary reformers are calling for compulsory measures. They desire local bodies to be compelled to perform certain acts, without reference to their fitness or qualification for such duties. Will not the imposition of stringent obligations of this kind, upon incompetent bodies, lead to continual central interference, and to frequent appeals to courts of law? Let me ask you to consider whether it might not be a wiser course to amend the constitution and composition of local bodies, so as to secure a more willing execution and a superior direction of preventive and remedial measures, and thus really to strengthen the great national principle of local government.

Again, as a general rule, I would suggest that prohibition is a safer principle than compulsion. "Shall not" is generally a better legislative formula than "shall." For example, it would be safer to say that local boards shall not empty their sewers into rivers, than to enact that they shall sewer their towns;—better to enact that they shall not permit the erection of dwellings in already over-crowded localities or on unhealthy sites, than to compel them to evict a badly-lodged population—better at once absolutely to prohibit (after a stated period) the slaughtering of animals for human food and the keeping of cows for milk-supply within the boundaries of towns containing more than (say) ten thousand inhabitants, than to enforce by inspection a variety of minute and vexatious regulations for the mere palliation of evils, which slaughter-houses and cattle-pens and cow-cellars in populous places must more or less perpetuate—wiser, I repeat, to decide that the local authorities shall not appoint official engineers or surveyors or medical officers of health, without ample guarantees for their superior qualification, for their freedom of opinion, and for the devotion of their whole time to their public duties, than to compel local boards to make such appointments without the necessary conditions.

Local authorities—I beg your pardon—sewer authorities, as we are to call them, are now really in a pitiable plight. They are, of course, expected to do all that sanitary laws empower them to do; they are threatened by advanced sanitarians with compulsory enactments in case of torpor or recusancy; they are warned that coroner's inquests will be held upon those who die from preventable causes, which they ought to have abolished; they are officially informed of their liability to ruinous actions for damages, if they poison their own people with a supply of bad water; yet they incur the greatest risk of Chancery Injunctions, on behalf of land-owners and adjacent districts, if they contaminate the water-courses by obeying the law.

Now, under these embarrassing circumstances, might it not be advisable for these local bodies, in small districts especially, to seek, and for the legislature to grant, an improved constitution of the administrative machinery, adapted to the necessities of the public health? Very desirable does it appear that town and country and union authorities should be enabled to unite in the execution of certain comprehensive measures, and especially in the appointment of superior officers. The administrative economy of large areas has been conclusively proved. A still more extensive combination of existing sanitary authorities seems to be required for the constitution of river-conservancies.

But, before any empirical resort to expedients, however promising, it would surely be right to consider what might, in the abstract, be the most desirable extent of area and population for local sanitary jurisdictions—for those, I mean, in which the more common hygienic functions are to be advised and executed; what, again, should be their relations to larger areas, as counties and river-conservancies, in which more extensive measures are to be directed; as well as to smaller areas, namely, parishes, townships, and portions of such, for which only special and limited works are required. Then would reasonably follow the more practical question—how best to reconcile the ideal with the actual; how to rectify, with proper regard to existing interests, the present areas and limits of administration.

The natural features and boundaries of any region, as influencing soil, water, and climate, are very important guides to the formation of districts for local management; and this principle may be advantageously borne in mind in any future correction of existing boundaries. The statistical divisions of the kingdom should, I repeat, be the principal factors in the process. They are the true bases of public sanitary action. A rational reform of local divisions, and a wise extension of administrative areas, are quite compatible with respectful consideration for the ancient limits of parishes, towns, and counties. By judicious improvements and reinforcements of County Authority especially, a very noble and excellent characteristic of English society may be preserved in the advance of civilisation.

If I have not dwelt with all the enthusiasm of a reformer on the progress and attainments of the last quarter-century, it is not, I hope, that I undervalue great results, but that I consider certain defects and causes of failure to be matters more deserving our immediate attention. It is well, moreover, to speak with modesty and caution of what has hitherto been accomplished.

And, before I sit down, I venture to protest against the inconsiderate use—I might almost say, the audacious misuse—of local rates of mortality in support of some favourite sanitary measure, or in opposition to some dreaded reform, by those who may not yet have proved the fallacies of sanitary statistics, or who do not perceive how small may be the bearing of any particular act or neglect upon the variations of a general death-rate; or, again, who forget that the same figures in different places, and in populations differing as to age, class, and occupation, may represent totally different standards of health, vigour, and longevity.

ON THE MORTALITY ARISING FROM ABDOMINAL HERNIA:

WITH SUGGESTIONS FOR ITS DIMINUTION.*

By JOHN BIRKETT, F.R.C.S.,
Surgeon to Guy's Hospital.

I HAVE been induced to bring forward the subject of the mortality caused by abdominal hernia at this annual gathering of the profession, from a conviction that many facts connected with the pathology of that disease are yet indistinctly known, or not generally acknowledged; and because small opportunities are afforded to a large majority of surgeons to witness the results of the improper treatment too often adopted. But, it may be justly asked, what authority have you for commenting on the treatment generally recognised as correct? I reply, the experience of thirty years, during which period several hundred cases have afforded opportunities for investigating the causes which saved the lives of sufferers, or accelerated their deaths.

The position I have the honour to occupy at Guy's Hospital, and the use I have made of the occasion, are the credentials which I offer to save me from the charge of presumption, if I thus, too boldly, some may think, charge the profession generally with the cause of this mortality. I trust I may not be considered to cast a slur upon the profession with which it is my pride and pleasure to be associated; for, as our paramount duty is to save life, so it seems to me as decidedly a part of that duty to expose the errors we may observe in the treatment of diseases, since, by the exposure of their consequences and the adoption of improved methods, it is fair to infer that their mortality may be greatly reduced. If I criticise the present mode of treatment severely, it is only because I hope by so doing to lead to the introduction of a method more free from danger; and, if I could be assured that a single life was thereby saved, the object of this communication would be attained.

Let me now adduce proof of the statement that the mortality from hernia is large. For this purpose I will quote, first, the report of the Registrar-General of Deaths in London, from 1848 to 1867 inclusive. In the last twenty years, 2,990 deaths are registered as the result of hernia in the London districts. This gives an average of 149 deaths *per annum;* or, of one death in between every second and third day. Secondly, the Registrar-General reports to me that the total deaths from hernia in the three years 1862-63-64 in England amounted to 2,480. The average being 826 *per annum*, or more than two deaths a day from hernia alone.

Surely this is a startling fact! For, it must be borne in mind that these 800 human beings died only because the protrusion was not returned *at all*, or *soon enough*, to prevent such fatal results. Since, on reflection, we must admit that there was a moment in each individual case when suitable treatment would have saved life almost certainly. But now, with these facts before us, let us search for the causes of this great mortality.

John Hunter writes most pertinently on this subject when he states—"If the disease is already formed, we ought to know the modes of action *in the body*, and *in parts*, in their endeavour to relieve themselves; the powers they have of restoring themselves, and the means of assisting those powers." (Hunter's *Works* (Palmer edition), vol. i, p. 209.) Does the surgeon who leaves a patient suffering with strangulated bowel for four or five days "know the modes of action in the body or in the parts" involved? Does he recognise the constitutional effects of uncontrolled vomiting, together with starvation, for all that time, or the feeble reparative powers of a patient 60 or 70 years old? Does he foresee the probable effects of firm constriction upon the delicate tissues of the protruded viscus for the same length of time? If he does not, he is ignorant of one of the first principles of surgery. If he does, he is culpably negligent in not resorting to the only method of relief. Does the surgeon know the powers the parts of the body have of restoring themselves, and does he adopt the means of assisting those powers by squeezing, crushing, and eventually destroying the tissues of the protruded bowel by violent taxis? Would he not rather be acting up to the spirit and letter of the quotation from Hunter if, by practising scientific gentleness in the taxis, and then failing to reduce the hernia, he immediately had recourse to the liberation of the bowel by dividing the impediment to its replacement within the abdomen?

Let us next inquire what are the constitutional and local conditions which make abdominal protrusions so fatal? For months, even years, a portion of intestine has frequently protruded, and has been easily replaced without any inconvenience; but on a sudden it escapes once more from the abdominal cavity, and death ensues in a few hours. I have designedly placed the constitutional effects produced by an unreduced enterocele first, in the foremost rank, because almost exclusive attention is devoted to the local tumour. The insidious influences progressively at work to extinguish life during the time the intestine remains unreduced are too little considered generally, and in many cases are entirely overlooked; whilst the most assiduous attention is being devoted to the local tumour with unavailing energy. But if more observation was bestowed on the constitutional prostration of the sufferer and the cause of death traced to that fact, as would certainly be the result of reflection, the local tumour would then receive that attention from the surgeon which alone could influence the result of the case. And, does not nature lead the surgeon, or rather attract his attention, to one of the most obvious causes of the fatal consequences? For, what is more distressing to witness, from the very outset of the case, than the persistent and uncontrollable vomiting of everything swallowed, and even much more. What depresses the nervous system so fatally? What is more hopeless than recovery from the prostration resulting therefrom? Do we not admit that from continued vomiting, as from that induced by chloroform, weakly persons will sometimes sink? and that without any other efficient cause. Do not patients sometimes die as the result of prostration from vomiting, even when the unhurt bowel is returned by gentle manipulation? They do. M. Malgaigne describes such cases; I have records of like cases, and probabaly some present have also noticed them.

This first natural consequence of intestinal obstruction would seem, indeed, specially important in attracting the observation of the surgeon, and should induce him to seek for its cause, because it often happens that persons, women especially, ignorant of the existence of a rupture, and feeling little, if any, pain in the tumour at first, have no cause to call his attention to the immediate and only source of all the trouble; for to neglect, oversight, or ignorance of the existence of rupture many deaths must be attributed. The cause of a very large proportion of the deaths arising from ruptures must be assigned to the effect of the prostration of the nervous system above described. In proof of this statement, we may instance those patients who die within a few hours after the liberation of the bowel without ever rallying at all. Cases in which an after death examination reveals no local lesion to produce that result. How unbounded, then, should be the anxiety of the surgeon to arrest this vomiting. He perhaps shows it by administering medicines by the mouth or the rectum. But with what result? How futile the treatment is let the mortality from hernia demonstrate. If he considered the vital importance of arresting this vomiting, he would surely put in practice the only treatment by which it can certainly be controlled; and, by removing the cause of the obstruction to the passage of the contents of the alimentary tube, he would reduce the mortality from hernia. The causes of death —the immediate—we may state to be the following.

1. Prostration, the result of long continued vomiting, starvation, and loss of sleep.
2. Local or general peritonitis, probably excited by the introduction of the inflamed protrusion into the peritoneal cavity.
3. The irreparable morbid state of the protruded viscus, brought about by the long continued constriction to which it was subjected.
4. The consequences, resulting from obstruction, to that division of the alimentary canal above the protrusion which, having become dilated, and in some cases thickened, seems at last to fail to contract upon its contents, even after the removal of the constriction.
5. The morbid condition of the viscus, brought about by the pressure employed unskilfully and unscientifically in attempts to reduce it.

And here, upon the subject of taxis, I must dilate more fully; for to its injudicious use a very large proportion of the deaths must be ascribed.

a. Taxis employed badly, improperly, erroneously, in an anatomical sense; *e.g.*, when a man tries to reduce a femoral hernia, believing it to be inguinal.

b. Taxis used with violence; *e.g.*, when the integuments are ecchymosed, effused blood is found in the sac, and the intestine is mashed.

c. Taxis prolonged inordinately; *e.g.*, when we are told by the patient or friends that "the doctor" was trying for three or four hours to push it up.

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* Read in the Surgical Section before the Annual Meeting of the British Medical Association in Oxford, August 1868.

d. Taxis too frequently repeated; *e. g.*, when we hear that Mr. —— came in the morning, a friend at noon, the assistant in the afternoon, and he himself again in the evening; when, failing to reduce the hernia, he sends off the patient to the hospital.

e. Taxis at the wrong moment; *e. g.*, after regurgitant vomiting of many hours' duration, when the abdominal muscles are rigid, and contract involuntarily.

f. Taxis employed without taking advantage of aids to its accomplishment; *e. g.*, when neither local warmth nor cold has been previously applied; and when the constitutional effects of heat, opium, or chloroform have been entirely neglected.

The above are not exaggerated statements of the injuries inflicted by the employment of the taxis; I could cite case after case in support of them.

But we must not attribute the cause of death to injudicious professional treatment too hastily. There are circumstances which give rise to the fatal issue for which the patient or the patient's friends must be held solely responsible. They are as follows.

1. Neglecting to send for surgical assistance at an early period of the illness.

2. Sending to a chemist for medicine, and not to a surgeon, in the first instance.

3. Persistent obstinacy in refusing to allow surgical treatment at the proper moment.

4. Continued attempts at reduction of the hernia on the part of the patient.

Having now, as briefly as possible, stated the chief causes of death from hernia, let us examine the bearing of these facts on the salvation of life.

First, how are we to arrest the vomiting, the chief cause of fatal prostration? I reply, by removing the obstruction to the passage of the contents of the alimentary canal as quickly as possible; or, in other words, by reducing the hernia. But herein lies the difficulty. The surgeon fails to replace it by manipulation. What next should be done? How long is it admissible to delay the division of the impediment to the reduction of the hernia? Some will reply to this question by fixing a definite number of hours beyond which no delay of the operation can be safely permitted. As for myself, I place no reliance on this calculation as a safe guide. In cases of recently developed hernial protrusion, for example, incessant vomiting depresses the powers of the patient to the lowest point in a very few hours; and, in small herniæ which are tightly constricted by a very strong gripe from the orifice of the sac, recovery may be hopeless in twenty-four hours. And these cases are remarkable for their fatality, and add a large proportion to the death-rate. The surgeon would be guided to the more successful treatment of the disease by observing the characteristics of the vomit. So long as the contents of the stomach alone are rejected, such as the substances and fluids swallowed, or as long as merely bilious vomiting continues, which indicates regurgitation from the duodenum only, palliative measures and aids to assist the reduction of the hernia by the taxis are justifiable; but so soon as the vomit becomes brown, and its odour nauseous—not like that of fæculent matter, for that occurs still later—I consider that the safety of the life of the patient is compromised, unless the intestine be liberated at once by a cutting operation. Do not conclude that I am uttering a hasty or precipitate opinion. Many lives would have been saved, if a cutting operation had been performed within twelve hours after the first vomit, which were sacrificed because it was not done before twenty-four; and, although I am fully aware that many operations upon patients who have survived days of suffering might be quoted as successful, we must remember that even they are to be classed with the lucky escapes from the ordinary termination of long protracted misery. Therefore I would add that no case of hernia should be allowed to remain unreduced after regurgitant vomiting is once fairly established—implying by that term *regurgitation from the jejunum*; for, if this rule were followed and acted upon, I believe the mortality of hernia would be sensibly diminished.

Next, as to the application of the taxis. Those who have not witnessed the results of what is termed "the application of the taxis" can have but a faint notion of the number of deaths which are caused by its injudicious use. At all stages of the attack of illness, violent pressure is made upon the tumour; and the sufferer may be considered fortunate, if there be a concurrent omental protrusion or abundant serous effusion within the sac—both these accidents being advantageous in protecting the bowel from the effects of violence. When there is regurgitant vomiting, I think the taxis is scarcely admissible; for what at this moment is likely to be the condition of the bowel? It has been constricted many hours (the accuracy in regard to the precise number is not very important); its blood-vessels are congested; its tissues swollen, probably softened: therefore speedily, more quickly damaged by manual pressure than by the continued effects of the natural constriction.

I desire especially to guard myself against the imputation of opposing the employment of the taxis. Practised at the right moment, and in a scientific way, it may be warmly advocated; but, when unsystematically employed, without method or aids, at any stage of the disease, we can only state the fact, that to its consequences are due a large proportion of the deaths from hernia.

Under what circumstances, then, is taxis admissible? Only at the *earliest* period after the descent of the protrusion, unless *aided* by constitutional and local means. Such means as may be required are usually at hand. Warmth and moisture can be obtained readily where a wash-tub and blanket are in use, as was recently suggested by a provincial surgeon. Ice is now to be obtained in all large towns, and in such localities hernia is most common. Chloroform, especially in inguinal hernia, by producing relaxation of the abdominal muscles, enables the surgeon by gentle pressure to overcome their gripe, as well as that of the orifice of the sac; besides various other measures which it would be idle to allude to here.

But I may be asked to state when the proper moment arrives to perform the cutting operation. I reply, that no special moment can be stated, applicable to every case. This broad principle, however, I venture to enunciate. So soon as regurgitant vomiting is established, and the taxis, aided by measures already stated, has been carefully but unsuccessfully employed, the bowel should be at once liberated from its constriction. For this fact should make a lasting impression: the deaths from hernia do not arise from the operation for the liberation of the bowel, but because the impediment to its reduction was not removed at the proper moment—not from the operation, but for the want of it. And what is there in the operation which deters the surgeon from its performance? It can be completed without giving pain; the loss of blood it causes is not worth consideration; the steps of it are decided and clear; there is, in all essential points, but little variety between one case and another; the tissues divided readily repair the injury inflicted on them; the after-treatment of the wound is simple; and the certainty of a successful result of the operation, when performed at the right moment, may be confidently reckoned upon. Of what other important cutting operation in surgery can we write so cheeringly? Why, then, not operate after certain marked symptoms are observable, and concurrently with which, it is certain, morbid conditions are advancing, and the results of which diseased actions conduce certainly to a fatal result.

The following, then, appear to be the principles upon which our treatment of hernia should be based, if we hope to diminish the mortality arising therefrom.

1. The vomiting must be arrested as quickly as possible; and this can only be certainly done by replacing the protruding intestine.

2. This must be accomplished in one of two ways—either by external manipulation, *the taxis*; or by cutting the impediment which opposes that step, *the operation*.

3. The taxis should be scientific, gentle, assisted by constitutional and local measures, never used when the bowel may be suspected to be diseased, not prolonged inordinately, and never too frequently repeated.

4. The operation must be immediately performed, as quickly as possible after the surgeon knows that he has failed to replace the protrusion by other means.

In conclusion, I submit that I have only performed a public duty in calling the attention of the profession to a class of diseases from which a high, too high, mortality arises; for of what value are the death-returns of the Registrar-General, if we do not comment upon them, and attempt to reduce them by every means in our power? For a high death-rate from any special disease always shows our inability to combat successfully with it. Especially are we called upon to perform this duty when death ensues upon those diseases which are more under the control of the surgeon than usually happens, and when, by acting upon fixed principles of practice, the fatal issue may be almost certainly averted. Such reflections cannot fail to force themselves upon the attention of the hospital surgeon who has to relieve the patients suffering under strangulated hernia, and admitted weekly, sometimes daily, into his wards. How constantly the expression escapes the operating surgeon, "If they had but sent this case earlier!", no one knows so well as he who has long pursued his calling in the wards of the metropolitan hospitals. I believe that many individual members of the profession are in total ignorance of the annual mortality from hernia; and I would venture to state, on the broad basis of experience, that, if they know what the numbers amount to, they must be, as evidenced by the treatment commonly pursued, totally ignorant of the best means to adopt to save life. Let us hope that one effect of introducing this subject to the consideration of the members of this Association may be to produce a marked diminution in the deaths arising from hernia; for the Reports of the Registrar-General must ever continue to be the test and sure demonstrative evidence of improvement and of advance in the curative results of practical surgery.

ON THE
TREATMENT OF PUERPERAL CONVULSIONS.[*]

By JOSEPH GRIFFITHS SWAYNE, M.D.,
Physician-Accoucheur to the Bristol General Hospital, and Lecturer on Midwifery at the Bristol Medical School.

IN the remarks I am about to offer upon the treatment of puerperal convulsions, it is not my intention to propose anything new, but rather to confirm the value of what is old, and was at one time well established. I shall endeavour to prove, from cases in my own practice and that of others, that there is no remedy in the treatment of this disease which deserves a higher place than blood-letting. To have written a paper for such a purpose, twenty or thirty years ago, would have been a most useless work of supererogation, so universally was the belief in the efficacy of this remedy received and acted upon. But now it is far otherwise. So steadily has the current of medical opinion set in the contrary direction, that it requires no small amount of courage to recommend the use of the lancet in any disease, no matter how sthenic may be the character of the complaint, or how clear may be the indications of local or general plethora. This remark especially applies to the treatment of puerperal convulsions. This was a disease which, above all others, seemed to require a free and unhesitating use of the lancet, and, acccordingly, we find that the most discreet and cautious practitioners of the old school did not scruple, in such cases, to take away 40, 50, or even 80 ounces of blood at a time, and often with the best results. But within the last thirty years, bleeding has been resorted to less frequently and more sparingly in all cases of puerperal eclampsia, until, at the present day, it may be said that medical men halt between two opinions; some are for and others against the use of the lancet in this disease. It is true that the majority of obstetric works still recommend blood-letting, but there are some that condemn it; and if we read reports of the discussions upon this subject in various obstetrical societies we shall often find that the opponents of the lancet are quite as numerous as its advocates. This phase of medical opinion has been partly owing, no doubt, to the increased disuse of the lancet in all diseases, but partly also, I think, to the circumstance, that within the last twenty years we have acquired a new remedy of undoubted value in the treatment of puerperal convulsions, viz., chloroform; whilst, men, such as Professor Braun (*Uræmic Convulsions*, translated by Dr. J. M. Duncan, p. 57) of Vienna and others who have been foremost in recommending chloroform, have usually been likewise the most active opponents of venesection. This being the state of the question at present, it appears to me that every case is worth bringing forward that will prove without doubt the value of a remedy which is falling, I think, into unmerited neglect, and I am therefore induced to direct attention to the following, which occurred in my own practice.

I was hastily summoned about 5 P.M., on December 5th, 1865, to see a lady who was being attended in her first confinement by my friend Mr. Sheppard. The patient, Mrs. P., was about 30 years of age, and from what I heard from her father, must have had an hereditary predisposition to convulsions. I was told by him that she was the eldest of five children, and that her mother suffered from convulsions at the first confinement, and afterwards died from the same cause, whilst giving birth to the last child. On my arrival at the house, Mr. Sheppard told me that the first stage of the labour was lingering, but presented no peculiar features until the os uteri was fully dilated. She then had two severe attacks of convulsions in rapid succession. With a view to deliver her promptly, Mr. Sheppard proceeded to turn, and had brought down one foot beyond the os externum, at the time when I arrived, but had not been able to complete the operation. She was then partially conscious, but almost immediately afterwards had another rather severe fit of an epileptiform character. On examining I found the forehead presenting, the head being firmly jammed into the pelvis by the side of the leg which had been brought down. With some difficulty I pushed up the head, brought down both feet, and succeeded in delivering her of a large still-born male child, which we in vain endeavoured to restore by artificial respiration; the child was born about 6 P.M. Soon after this she seemed better, partially regained consciousness, and was able to recognise her husband. I saw her again at 10 P.M., she had had a slight fit since delivery, but in other respects seemed better. She recognised me, but said that she could only see one half of my face and complained of headache. Almost immediately afterwards a severe fit came on. We ordered her hair to be cut off, and cold to be applied to her head, and gave her 5 grains of calomel immediately, and an enema containing half an ounce of turpentine and half an ounce of castor oil. I was summoned about eight the next morning, when Mr. Sheppard told me that she went on well during the night, until about 1 A.M. when she had another fit, and again another at 3, and at 4.30; and these were followed by five or six more violent fits, between that time and eight when I arrived. There was complete unconsciousness and stertorous breathing between the fits; pulse 140. Some urine was drawn off by the catheter and tested. The albuminous deposit formed about one-sixth of the whole quantity. We bled her to twelve ounces and ordered sinapisms to the calves of the legs, a blister to the back of the neck, and another purgative of calomel and jalap. Almost immediately after the bleeding the respiration became less stertorous, and the pulse slower and steadier. We next saw her at 2 P.M., she was then much better and had had no fit since 9 A.M. The breathing was natural—pulse 124; and she recognised us and answered our questions in a collected manner. At 10 P.M., there had been no recurrence of fits, and she was in every respect better. Scarcely a trace of albumen could be found in the urine. As the purgative had not acted, we gave her a drop of croton oil. We saw her on the next day, December 3rd, at 3.30 P.M., she was going on very well and perfectly rational; pulse 112. The pill had acted well, producing two large, dark, offensive stools. The urine, however, on being examined, contained a deposit of albumen equal to one-third of the whole. When we saw her on Dec. 4th, she was doing well in every other respect, except that she had had very little sleep; pulse 110; urine contained albumen to the extent of about one-fourth of its bulk. To have thirty minims of liq. morph. acet. of P.B., and ten minims of spirit of chloroform. On the 7th she was going on perfectly well; there was no albumen in the urine, and from that time she made a good recovery.

In this case we observe that two convulsive attacks occurred just at the commencement of the second stage of labour. Delivery was then resorted to; but this remedy, which is considered by many to be the most important of all, merely produced a temporary amelioration of the symptoms. Within two hours the fits recurred with increased severity. Free purgation was then had recourse to, with shaving the head and the application of cold; but these measures only gave relief for a time. In three hours the fits returned with much greater violence and frequency, and continued for seven hours until I saw her again, when I found her completely unconscious with stertorous breathing and a pulse of 140. She was then bled, had another purgative given her and counter-irritation applied to the back of the neck and calves of the legs. The bleeding was followed by a decided diminution of the stertorous breathing and the rapidity of the pulse, and this improvement took place too speedily to be referable either to the purgatives (which did not act at first) or to the counterirritants. There were no more fits, and the recovery from this time was steady and progressive.

In 1863, I published the particulars of eleven cases of puerperal convulsions, in all of which bleeding was employed; and I have since met with three more which I have treated in the same way; but although in nearly all the result of venesection was most satisfactory, I cannot bring forward any of them as undoubted proofs of the efficacy of this remedy, because other efficient means, such as delivery, chloroform, purgatives, etc., were employed simultaneously. Other practitioners, however, have given cases of their own, in which the evidence in favour of bleeding was still more conclusive than in the one I have related. Professor Depaul, of Paris, who is a great advocate for the use of the lancet in puerperal eclampsia, gives the case of a woman who was attacked by puerperal convulsions, and who was kept for four hours under the influence of chloroform, upwards of three ounces having been used. Instead of becoming fewer and less severe, the attacks became more violent and numerous, although the patient had been delivered for some hours. M. Depaul then caused her to be bled twice within half an hour, and the convulsions ceased. A similar instance of the success of bleeding in arresting convulsions, after the failure of chloroform, is given by Dr. Bruce, in the EDINBURGH MEDICAL JOURNAL for September, 1861.

Dr. Dyce, of Aberdeen, has lately published a small pamphlet (reprinted from the BRITISH MEDICAL JOURNAL for April, 1868), giving the result of his experience in eight cases of puerperal convulsions. In all, bleeding was the chief remedy employed, and it was employed very freely; thirty ounces of blood being the quantity usually taken. In four instances it was necessary to repeat the bleeding. In one case the patient was bled three times, and lost eighty ounces within twenty-four hours. In all the result of the bleeding was most satisfactory, and the mothers made a good recovery. In three cases the convulsions ceased immediately after bleeding. On reading over these cases carefully I cannot see how the good result can be due to anything but the bleeding. Artificial delivery, which is usually considered so all-important a remedy, was only had recourse to in three cases, and chloroform in one. The other means employed were purgatives, cold to the head, and counter-irritation. But the most conclusive case of the kind which I know, is one which occurred to my brother, Mr. S. H. Swayne, and was recorded by him in the BRITISH MEDICAL JOURNAL for June 20th, 1863. A woman in the seventh month of her pregnancy, was attacked with puerperal convulsions, for which blisters, cold to the head, purgatives, and enemata were administered without effect. The urine, on being examined, contained so large a quantity of albumen that the deposit formed by it occupied about five-sixths of the whole bulk of the fluid examined. She was bled on the next day to twenty-five ounces. No more convulsions occurred. Some urine, passed within twenty-four hours after the bleeding, was examined, and the albumen was found to occupy only one-sixth of the whole volume after subsidence. Although the fœtus appeared to be dead, no attempt was made to deliver, because there was no dilatation of the os uteri. The woman went on well for twelve days, when labour set in, and terminated favourably, without convulsions, in the birth of a dead child somewhat decomposed. My brother remarks respecting this case, that "no other exciting cause for the convulsions beyond the uræmia could be discovered; and that the presence of the fœtus in the uterus had little share in bringing them on or maintaining them, would seem to be shewn by the cessation of the convulsions and of the albuminuria, notwithstanding the presence of a dead child in the uterus; and by the uterus remaining quiescent for a fortnight after the first fits. That the improvement was due to the measures employed, especially to the bleeding, can, I think, scarcely admit of a doubt."

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[*] Read in the Midwifery Section before the Annual Meeting of the British Medical Association in Oxford, August 1868.

The *modus operandi* of bleeding is not quite so evident, because obstetric writers are not yet agreed as to what are the essential causes of puerperal eclampsia. It is quite certain that these convulsions are usually accompanied by cerebral congestion, and also by a state of toxæmia as shown by the presence of albuminuria; but it is not so certain that they are *produced* by either of these conditions. It is most probable, however, that such is the case, and hence we can readily understand why bleeding should afford such signal relief, by diminishing cerebral and (as is shown in two of the cases narrated above) renal congestion, and thus removing the two most powerful causes which act immediately on the nervous centres, or, as they have been termed, the "centric" causes of puerperal convulsions. Amongst the "eccentric" causes, or those which act on the peripheral nerves, the most frequent and powerful is, undoubtedly, uterine irritation; and the most efficient remedies for this condition are chloroform and delivery. With respect to chloroform, I do not intend to detract in the least from its merits as a palliative, or as, in fact, the most effectual sedative we know of, for mitigating the severity of the fits and tranquillising the patient whilst artificial delivery is being effected; or again, as a curative in those exceptional cases of purely reflex convulsions occasioned by great irritation of the uterus or some other organs; but at the same time it ought not in most cases to be considered as a substitute for bleeding, which, when convulsions arise, as they usually do, from centric causes, is a remedy in my opinion far superior in efficacy to chloroform and even to delivery.

BROMIDE AND BIBROMIDE OF MERCURY AS THERAPEUTIC AGENTS.*

By PROTHEROE SMITH, M.D.,
Physician to the Hospital for Women.

MERCURY, known and administered as a remedy by Paracelsus, has ever since been used in a variety of forms, both in its pure state, and as oxide, sulphide, chloride, etc. Of these, its combinations with chlorine have been most generally used. In the present paper, I desire to draw attention to its combination with another element of the same group—bromine—forming the analogue of calomel and corrosive sublimate. Though, chemically, substances may vary only slightly in constitution, and may bear a certain analogy to another set of substances, yet, therapeutically, it is impossible from the knowledge of the effects of one body to premise the action of its analogue. We know little or nothing of the *modus operandi* of medicines, but are obliged to grope about experimentally and empirically till we arrive at the correct knowledge of the nature of a remedy.

The halogens, fluorine, chlorine, bromine, and iodine, remarkable for their affinity with substances at ordinary temperatures, are here mentioned in the order of their atomic weights; fluorine having the lowest. Their respective equivalents are as follows: Fl. 19, Cl. 35.5, Br. 80, I. 127. Their chemical affinity is in inverse ratio to their atomic weights; so, therefore, their power of decomposition is as their atomic weight. In the instance before us, the bromides appear to be therapeutically more active than the chlorides, as the iodides probably excel both, though the percentage of mercury in combination decreases from the chlorides to the bromides and iodides, as will be more apparent from the following table, showing the comparative percentage of the four elements above enumerated, and of the mercury in combination.

	The Halogen.	Mercury.
Fluoride of Mercury	8.8	91.2
Bifluoride of Mercury	16.4	83.6
Subchloride of Mercury (Calomel) . . .	15.1	84.9
Perchloride of Mercury (Corrosive Sublimate) .	25.9	74.1
Bromide of Mercury.	28.6	71.4
Bibromide of Mercury	44.5	55.5
Iodide of Mercury	38.9	61.1
Biniodide of Mercury	56	44

Hence these four elements, in their combination with mercury, show the following comparative percentage to their base; viz.:

Fluorine	8.8 and 16.4
Chlorine	15.1 and 25.9
Bromine	28.6 and 44.5
Iodine	38.9 and 56

In exhibiting mercury, we either use it when minutely divided in the metallic state, as in blue pill and grey powder, or in the sparingly soluble form of calomel, or the soluble corrosive sublimate. As pure mercury is almost inert as a medicine, the action of the first two, due probably to some protoxide of mercury, is comparatively slow. Of the calomel administered, only a very small quantity is taken up; and there is a great diversity of opinion as to the method of its absorption. Dr. Headland, in his excellent observations on the absorption of mercury, states his belief that in the bile are to be found the elements of a solvent for calomel; and this he endeavours to substantiate by experiment. The perchloride, being soluble, is at once absorbed, and so readily acts on the system: its effect, therefore, can be more depended upon, and more accurately traced.

It may not here be uninteresting to make a few remarks on the action of the elements of this combination.

First, as to mercury, little need here be said, since so much is at present doing, both on the part of its advocates and opponents, that we are likely to have the question soon thoroughly sifted. Moreover, we are to receive during this meeting the Report of the Edinburgh Committee on the Action of Mercury, the names enrolled on which are a sufficient guarantee that we may confidently expect some valuable conclusions as a result of their investigations.

Secondly, with regard to bromine, it has seldom been given alone; and we are more conversant with its effects in combination as bromide of ammonium and bromide of potassium. Dr. Bazire, in a note to Professor Trousseau's lecture on Epilepsy, has left some valuable remarks on bromide of potassium. It acts chiefly on the nervous system, as a sedative, producing, to a certain extent, anæsthesia of the pharynx and palate. The sense of taste is impaired, if the medicine is pushed far. Sensibility of the conjunctivæ is lessened, and a general lassitude supervenes. The patient, however, retains the power of swallowing, together with a good appetite. For its wide-spread use, we are indebted to Sir Charles Locock, who brought it before the notice of the Royal Medical and Chirurgical Society fifteen years ago. Sir George Gibb, in writing on the action of bromide of ammonium, says that it has the power of absorbing hypertrophied structures, especially enlargement of the spleen, liver, lymphatic glands, and scirrhous growths. Now, in the bromide of mercury, the percentage of mercury being less than in the chlorides, and the percentage of bromine consequently greater, it would seem to indicate that the bromine is the active agent. At the same time, the mercury, being proportionately less, would seem to act only as an alterative. Reverting to Sir G. Gibb's observations: he considers the bromide of ammonium a tonic, improving the appetite, keeping the tongue clean, and often relieving dyspeptic symptoms. Moreover, it produces a clearing of the complexion when florid. It produces anæsthesia of the fauces, etc., more rapidly than the bromide of potassium. It is employed as a remedy for obesity, and as an emmenagogue. In Macnamara's edition of Neligan's *Medicine*, he mentions that bromide of ammonium is also useful in uterine and ovarian irritation. He mentions also the bromides of mercury, and gives the dose of the subbromide (bromide) from one to two grains, and that of the perbromide (bibromide) from one-sixteenth to one-fourth of a grain; but I have usually found that the subbromide of mercury exerts a greater power than its corresponding salt, calomel.

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* Read in the Medical Section before the Annual Meeting of the British Medical Association in Oxford, August 1868.

Having been in the habit of prescribing the bromides of mercury during the past five years, and being impressed with their value as therapeutical agents, I wish concisely to point out their general effects, in the hope of enlisting others in this investigation; so that, by long and continued observation, we may together accumulate such knowledge of their powers as may enable us more accurately to judge of their merits, as compared with those of the chlorides.

I have found, with the protobromide or subbromide, that a less dose than of calomel is required; that it acts more agreeably and effectually, both as a cholagogue and purgative, without the depressing results so often observed to follow the exhibition of calomel. It seems to be useful in promoting the absorption of hypertrophied glandular and other morbid tissue with less constitutional disturbance than the chlorides. I have administered it, with apparent great relief, in cases of biliary congestion of the liver, in chronic hepatitis with enlargement, and in those skin-diseases which yield best to the influence of mercury. I might quote some interesting cases of large anomalous tumours of the abdomen sensibly diminishing, and in two instances wholly disappearing, under the use of these remedies—viz., the protobromide of mercury in half-grain doses, and the perbromide in the form of an ointment of four grains to the ounce of cold cream; also of uterine tumefactions and morbid deposits around the cervix uteri and in the connective tissue of the pelvis, treated with pessaries of the perbromide, as well as the ointment externally. I could cite other instances of acute and chronic inflammatory disease in which the bromides have been apparently of great use; but my observations have been as yet so limited, and the difficulties of making perfectly correct observations on the action of a new remedy are so great, that I think it best to forego such means of proving its value till a mass of evidence can be adduced which may better test the accuracy of my conclusions. With your permission, therefore, sir, I would here ask those members of the Association who may try these remedies to note their effects, and kindly to favour me with a report of their observations, so that I may, at a future time, publish the result of our united efforts; since to arrive at any definite ideas of the action of the bromides of mercury will, I feel sure, require the careful work of many observers.

This short paper, then, claims to be put forward, not as a complete account of a new remedy, but as a notice to the profession, with the view of stimulating others to take up and investigate the subject.

ON CARIES OF BONE.

By HOLMES COOTE, Esq.,

Surgeon to St. Bartholomew's Hospital, London.

I HAVE been long convinced that the results of operations undertaken for the removal of carious bone are unsatisfactory. We see case after case in which the surgeon gouges away as much as he dare of the diseased structure; and yet he finds, when the period for the cicatrisation of the wound comes about, that the fistulous sinuses still remain open, and that the annoyances to the patient are as great as before. A second and a third operation may be recommended and performed, and still the relief is incomplete, until, finally, a cure is effected by natural processes.

These reflections lead naturally to the question, What is caries? Is the disease of such a nature as to admit of beneficial treatment by surgical operation?

We find, in reference to this question, no small difference of opinion among surgical authorities. Some mean by the term, simple ulceration of bone; others, chronic suppuration of the cancellous tissue. Mr. Stanley often defined it, in my presence, as "unhealthy ulceration of bone." Mr. Erichsen speaks of it as a disease characterised by increased vascularity, softening, and ultimate disintegration of the osseous tissue.

Perhaps the last definition expresses best the true nature of caries; but it is wanting in accuracy of detail.

Caries may be said to have its seat, with scarce exception, in the cancellous structure of bone, such as the bodies of the vertebræ, the bones of the carpus and tarsus, or the spongy extremities of the long bones. As already observed, the disease commences with increased vascularity (ostitis or osteomyelitis); and I think that I have never known it to be transmitted from the soft parts to the bone. It has always commenced in the bone itself. As the disease proceeds, it causes molecular disintegration of the osseous tissue, which comes away in the form of minute fragments mixed with the pus. After a time, larger portions may perish and become detached; but, unlike that which is observed in simple necrosis, these carious sequestra do not represent the whole of the diseased part. One of the most intractable forms of caries is that termed caries fungosa (Volkmann), which is characterised by both ulcerative destruction and the production of an abundant granulation. The bones become mouldering, osteoporotic and thinned, in parts absolutely destroyed, the medullary space being filled by a reddish-coloured marrow. The granulations lose their florid red colour and become pale; there is an abundant deposit of fatty matter in the neighbourhood; and the discharge becomes offensive and discoloured. It is this form of caries which especially attacks the bones of the carpus and tarsus. Portions of eroded bone may be detached, but the morbid action extends far beyond their sphere, and usually more bones than one are involved in different stages of the same disease. The pressure of the granulations is followed by absorption and alteration in contour, while the internal disintegration may terminate in leaving little more than an external shell of compact, but thinned and light tissue.

This is the disease, and such the conditions of the morbid parts, which we in modern surgery attempt to rectify by the operation of gouging away the diseased bone. The results have not realised my expectations, except in cases where bone, already detached, admitted of easy removal, or where an emptied cloaca, surrounded by healthy bone, could be scraped so as to relieve it of its soft and unhealthy lining.

Under the most favourable conditions, the prognosis is far from good; but I am inclined to doubt whether the patient's condition would not be better after a period of twelve months, and simply kept at rest and in good air, than if he had undergone the usual operation.

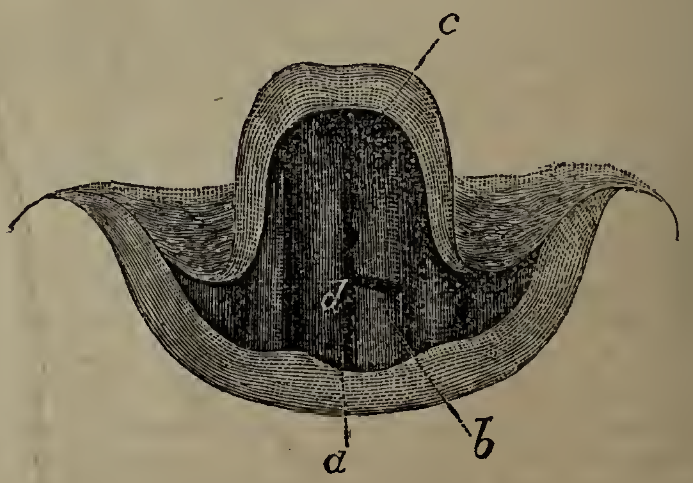
A CONTRIBUTION TO BABY-FARMING.

By HERMANN BEIGEL, M.D., M.R.C.P.,

Physician to the Metropolitan Free Hospital.

THE following interesting case illustrates some of the evils of the system of baby-farming, which have been so ably exposed in the reports which recently appeared in the columns of the BRITISH MEDICAL JOURNAL.

Rebecca Levy, now twenty-four years of age, was, soon after birth, possessed of a loud and clear voice. When she was one month old, her mother fell ill, and was obliged to become an in-patient at a hospital, and to give her baby in charge of a woman to be nursed. Very little care was, however, taken of the child, who was left by her nurse in a room with the door closed, with very little food, and who consequently cried nearly the whole day. This continued for nearly twelve months, when the mother returned home, and took the child back, the latter being but ill-fed and perfectly hoarse. The girl never recovered her voice, and only experienced a difference in the degree of hoarseness. During the last few months, this condition had become at times alarming; fits of suffocation sometimes setting in, interrupting sleep, which was always accompanied by a whistling, rattling noise. The patient could never lie on her back without experiencing one of these suffocating attacks; and was, therefore, obliged to remain in a sitting posture during the night. On the 27th of May last, she came to the Metropolitan Free Hospital in a state of suffocation, and was admitted as an in-patient under my care. Her breathing was at this time extremely laborious; the ordinary muscles of respiration, as well as the auxiliary muscles, were in powerful action; the alæ of the nose were working violently; the visible mucous membranes were livid; perspiration covered her face and forehead; her speech was very hoarse and thick; and, from want of breath, she could only pronounce short interrupted sentences.



Laryngoscopic Examination.—The pharynx was red. The larynx and vocal cords were as illustrated in the accompanying woodcut. Both vocal cords had entirely lost their white appearance, and were converted into flesh-like masses. They were, moreover, detached from their insertion into the arytenoid cartilages; and the left vocal cord (*c*) was ruptured through its whole breadth at about its lower third (*b*). There was no movement whatever of the vocal cords visible, except the lower portion of the left cord, which acted as a kind of valve, floating inwardly at each inspiration, and outwardly at each expiration; the right vocal cord and the upper portion of the left hanging down perpendicularly, and lying closely applied to one another, leaving no rima whatever. The false vocal cords were much swollen, and partly covered the former. It must be remarked, that the lower portion of the left vocal cord did not present the fleshy appearance described above, but had partly retained its white appearance.

The symptoms were, in fact, so urgent, that I contemplated performing tracheotomy; but, owing to the excellent action of the lower portion of the left vocal cord, as described above, I determined to try the effect of the local application of a strong solution of nitrate of silver; and afterwards directed her to suck ice, and to apply it externally to the larynx. After twenty-four hours, the inflammation had decreased so far under this treatment, that the patient was able to lie on her back, and to respire with comparative ease. After applying the nitrate of silver four times, the vocal cords had returned to that state which, in this patient, must be considered normal. The cords, being now considerably diminished in size, became moveable, and presented, at each respiration, a peculiar appearance. The right vocal cord, as well as the two parts of the left one, instead of performing the movements seen in a healthy larynx, were floating alternately inwards and outwards at each movement of inspiration, in the same manner as was the case with the lower portion of the left vocal cord during the height of inflammation.

The patient remained in the hospital up till June 17th, without experiencing any further inconvenience, except that her voice continued thick and hoarse—a state which does not admit of any remedy. She was discharged from the hospital, after improving considerably in her general health.

There can be no doubt as to the etiology of this case. The continued overstraining of the vocal cords by constant screaming was, at such an early period of life, sufficient to detach both of them from their insertion, and to tear the left vocal cord asunder; and is, therefore, distinctly traceable to the neglect of the child arising from the system of baby-farming. I am not aware that any similar case has been placed upon record.

THERAPEUTICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

CASE OF EPILEPTIC CONVULSIONS TREATED BY GALVANISM.

By Fred. Wm. Parsons, L.R.C.P.Lond., etc., Islip, Oxon.

Mrs. B., aged 36, a strong healthy-looking woman, had six children previously, all good times; the last one eight years ago. There is history of insanity. Her mother is in an asylum, and two of her sisters are of unsound mind, and the woman herself is of very weak intellect. She last menstruated on February 27th, 1866, and first felt the movements of the child the first week in July. About October 24th, she had a sanguineous discharge, with pains; the discharge was rather profuse; but upon lying down, it went off, and she felt the movements of the child up to November 20th. On the evening of November 26th, pains came on regularly; but at three o'clock the next morning she had a fit, and I was sent for. I saw her about eight o'clock, and she was then in a fit, lying on her left side, mouth drawn to the left, and bloody froth issuing from it; prosthotonos; tonic spasm; skin quite cool and dry; pulse 84; eyes turned up; pupils normal. The fit lasted about four minutes, when she became partly sensible but very sleepy, and in about ten minutes had another fit. She continued in this way for about an hour, the fits becoming more frequent and severe, and the patient quite comatose in the intervals. There were now no pains; through the abdominal walls the uterus felt quite flaccid; the os uteri was dilated about the size of a shilling, and was dilatable. The presentation was made out to be normal. After the first fit, I gave a good dose of calomel and jalap, but it was all returned during the next fit. There being no uterine contraction whatever, I determined to try the effect of galvanism externally to the uterus, which had the desired effect immediately, the bag of membranes becoming tense, and protruding through the os. The membranes were then ruptured, and the head quickly descended. Short forceps were applied, and the child was delivered in three-quarters of an hour from the commencement of the galvanism. The after-birth followed in about fifteen minutes, and there was very little hæmorrhage after, the uterus contracting regularly and firmly. Galvanism was continued some few minutes after the placenta had been expelled, to ensure perfect contraction. The child was born dead, and appeared to have been so several days. The patient remained perfectly insensible all day, and at 9 P.M. I ordered a mustard-plaster to the back of the neck and half way down the spine; towards the next morning she became partly sensible, and passed about a pint of urine, which was thrown away before I could see it. The next day (November 29th) at 11 A.M, she had passed no water for twenty-eight hours. About two pints of very fœtid urine were drawn off, the colour of dark sherry, becoming semi-solid on heating; the catheter was blackened during the operation. There was considerable abdominal tenderness, which was relieved in a day or two by hot fomentations and a mixture of ether and morphia. From this time she continued to improve. The urine was drawn off regularly for about a week, and gradually became less albuminous and disagreeable. During her recovery she had several attacks of pain in the bowels, but it was almost immediately relieved by the ether and morphia. When I saw her a week ago, she said she felt quite well, except rather weak. There are two points I think well worthy of notice in the above case. 1. *Immediately the galvanism was commenced the fits ceased*, and they have never since returned. 2. *The speedy action of the uterus* and the ease with which delivery was accomplished, and the very good recovery the woman has made.

TREATMENT OF DIABETES BY PEROXIDE OF HYDROGEN.

By Samuel J. Bayfield, Esq.

A gentleman, aged 46, engaged in commerce, of steady habits, and a moderate liver, suffered from diabetes, for a year and a-half, and had been the whole time under treatment of some of the best practitioners in London, and receiving no benefit, lost both faith and patience, and applied to me; after hearing his statement, and examining his prescriptions, I felt I could not give even feeble hopes of benefit. But it occurring to me that Dr. Day of Geelong, some time since, published in the *Lancet* the result of the successful treatment of a case under unfavourable circumstances by the use of the ethereal essence of the peroxide of hydrogen in drachm doses three times a day in distilled water, I was determined to try the effect of the remedy upon my patient. I began with half-drachm doses, and gradually increased to the drachm. I also materially relaxed the rigidness of his diet, and discontinued much that was disagreeable and objectionable for one more consonant to his taste and appetite. I have much pleasure in announcing, after about ten weeks' steady perseverance, with occasional fluctuations, he quite recovered, and has kept well for several weeks; he is now in the country for the benefit of change of air; he is gaining both strength and flesh; and he writes home in a strain both hopeful and thankful. I have not troubled you with daily details, for they would be uninteresting and tedious.

OBSTETRIC MEMORANDA.

[Under this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

PLACENTA PRÆVIA WITH TWINS BOTH PRESENTING ABNORMALLY.

By Hugh Norris, Esq., South Petherton.

Mrs. S., aged 31, pregnant for the fifth time, had had sudden profuse flooding between the sixth and seventh months. She sent for me on March 14th, 1867. She was last confined in June 1863, when, from taking cold, she had a severe attack of arthritic rheumatism, and subsequent puerperal mania; since which time she had been unable to walk, or even turn in bed, without assistance. She had been losing blood, more or less, for a week. This evening strong pains came on with coloured discharge, and I found her very feeble and much blanched. On examination, it appeared that there had been placenta prævia to some extent, but that the os, on dilating, allowed a mixed presentation of placenta and membrane. I at once ruptured the latter, when a hand coming down, I turned and delivered the patient of a living female child, which cried lustily. In doing this, I became aware of the presence of another fœtus, and pretty strong pains supervening, I awaited the second presentation without interference. After a time, finding nothing discernible of the second ovum beyond membranes, I ruptured them. All pains suddenly ceased, and I could not induce uterine action for about twenty minutes, when I succeeded in restoring it by means of circular abdominal friction. The *placental* mass, however, coming down instead of the child, I examined more deeply and minutely, and found that, the head being detained in a sulcus between the two placentæ, just over the pubes, the fœtal presentation was rapidly becoming thoracic. I again turned, and delivered the woman of a living male child. The placentæ separated readily, and the woman made a good recovery.

The male (second) child died the next morning. The female (first) child lived two days and a half. Neither appeared viable.

As if to increase the complications of this case, I was dining with a friend when summoned to attend it; so that, beyond my two hands and a black-lead pencil (with which I ruptured the membranes of the second child), I was utterly destitute of any "appliance" whatever.

INDUCTION OF PREMATURE LABOUR: RESUSCITATION OF CHILD.

By H. V. BARNES, Esq., Liverpool.

M. K., aged 26, being in her fourth pregnancy, and having been delivered by myself on the three previous occasions with the greatest difficulty (twice by the long forceps, and the third time by craniotomy, effected by perforating through the roof of the mouth, after the forceps and version had both failed), was advised by me to submit to the induction of labour at the eighth month. This was attempted by the injection of from ten to twelve ounces of warm water through an elastic male catheter introduced about three inches within the os, between the walls of the uterus and the membranes; the patient remaining in an inclining position for an hour or two, and then going about her duties. None of the injected water returned when the catheter was withdrawn, or subsequently. Nearly a fortnight elapsing without any result, I was about to repeat the operation, when, on the evening of July 28th, labour commenced, three weeks before its time; and, on the morning of the 29th, I was fetched in haste, with a message that "the waters had come away". The water that came away, however, must have been that which had been injected; for the membranes were entire, and were only ruptured some time afterwards; when, finding the head would not enter the brim, I turned, and delivered with great ease.

The child not making the slightest effort at breathing, I resorted to the Silvester method of artificial respiration, which I continued for ten minutes without any effect, and then adopted the Marshall Hall system for a similar period, and with the same result. I then inflated the lungs with my own breath, and again resorted to artificial respiration by alternately compressing the chest and abdomen. This failing, I tried inflation once more, and once more the Silvester method. The heart had by this time apparently ceased to pulsate, and the whole surface of the body had become livid. Being determined, however, not to despair, though urged not to take any more trouble with a "dead child", I introduced a trachea-tube through the rima glottidis (which, from its direction, must have entered the left bronchial tube), and, blowing with some force, ejected from four to six drachms of fluid that must have been lodged in the trachea and bronchi. Resorting again to artificial respiration, my efforts were crowned in a short time with success; for the heart recommenced to beat; the surface of the body resumed its pink hue; and the chest began of itself to expand and contract. A smart slap on the back seemed to accelerate matters, and gave rise to a healthful hearty cry more than half an hour after birth.

This patient has been up a fortnight after each of her labours, thus illustrating the tolerance with which manipulative and instrumental interference is borne when not delayed too long, and accompanied with the free administration of chloroform.

The failure of all efforts at artificial respiration before, and its success after, the ejection of the water from the trachea, would seem to point to the possibility of many children having been drowned, as it were, in their birth.

REVIEWS AND NOTICES.

On Asthma, its Pathology and Treatment. By Henry Hyde Salter, M.D., F.R.S., Fellow of the Royal College of Physicians. Second Edition. London: 1868.

On the publication of the first edition of Dr. Salter's book in 1860, we gave a full and searching review of the matters most worthy of attention it contained. We will, therefore, now only notice a few of the more important additions given in the present volume, and with reference chiefly to the more recent therapeutical agents employed, for it is especially in a therapeutical point of view that Dr. Salter's new edition deserves perusal. Considerable progress has been of late years made in the treatment at least of the asthmatic paroxysm, and through the labours of no one more than Dr. Salter himself.

Preeminent as a powerful remedy, chloroform has largely engaged the attention of the author, and we think the chapter deserves serious perusal by members of the profession. In Dr. Salter's experience, and, we may add, in our own, it has proved of the greatest benefit in a large number of cases, but only by stopping or preventing the paroxysm. It is, however, uncertain as to the quantity required, and not permanent in its effects. Although not a radical cure, still it is almost paramount to such, if it prevents the attacks, however frequently they may threaten the individual. It is, in addition, a safe remedy, when given by a proper person, and irrespective of the amount of existing dyspnœa. There are several drawbacks of considerable importance, however, to the remedy. There is danger of the patient, by employing it himself, taking a fatal overdose, or of its developing into a powerful habit. In those, however, who are rarely affected by the attack, there is little fear of this. Dr. Salter cautions his readers, and says it ought to be used as seldom as necessary. It appears to us that in chloroform we have a powerful means of alleviating this painful disease, but that our knowledge of its use is far from complete.

Equally powerful and more certain as a remedy in the paroxysm is alcohol. The cases reported give undoubted proofs of its success. To produce the desired effect, it must be taken in as concentrated a form and as hot as the patient can bear it, and in such quantity (all at once, not sipped) as will produce the physiological effect, without which it will not act. It therefore requires to be more and more increased in quantity, the more frequently it is required. Notwithstanding the danger of taking spirits as a remedy in a chronic disease such as asthma, Dr. Salter, after arguing the question impartially, expresses his opinion that it would not be justifiable to withhold it. Although we would fain disagree with the practice altogether of using it to produce systematic and frequent intoxication, still, with a remedy in our hands which will alone give immediate relief to such a horrible thing as an asthmatic paroxysm, we must at least give the sufferer the option of taking it.

A third agent we must refer to, of great power, is iodide of potassium. One would naturally suppose that the benefit derived from iodide of potassium in asthma was due to its effect on the bronchial mucous membranes in cases complicated with chronic bronchitis. This view was held by Dr. Salter. He, however, abandoned the idea, because, in several of the cases where most benefit was derived from its use, there was no bronchitis present. Still it must not be concluded from this that it does not act locally on the bronchial mucous membrane. Although not able to account for its success, Dr. Salter is not the less satisfied of its value.

In addition to these remedies, the author, as in the last edition, goes fully into the employment of the various well-known remedies for the treatment of asthma—stimulants, sedatives, the hygienic, the dietetic, and regimenal treatment, and the influence of locality. Those we have noticed more fully are, however, less known as therapeutic agents in this disease, and deserve a full and careful trial by the profession. It is not alone, however, in this part of the volume, that fresh matter is added. Throughout the whole book, there is much that is novel and worth perusal. On the cases of asthma from animal emanations, there are some very interesting remarks; cases being mentioned of attacks induced by the effluvium from horses, wild beasts, guinea-pigs, cattle, dogs, hares, etc. There are additional narrative cases given of uterine and various other forms of asthma. Added to this and much other new material we are prevented by want of space from noticing, is a very large increase of tabulated cases—223, instead of 44 in the last edition—which, with the deductions given throughout the book, render it of the utmost value. We can with confidence recommend Dr. Salter's book, the best on the subject, as a work full of interest, comprehensive, and practical.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 17TH, 1868.

OUR IRISH MEMBERS.

We have much pleasure in announcing that arrangements are in progress for considerably extending the representation of Irish medical interests in this Journal, with a view to make it, even more completely than hitherto, an entirely representative organ for Great Britain and Ireland. Henceforth we shall be in a position to furnish a considerable Irish element, in the way of Hospital and Society Reports; Original Communications, from eminent members of the profession in Ireland; Poor-law and other information; and leading articles on subjects connected with that hospitable country, wherein our Association met with a generous welcome in 1867, and a large number of whose medical practitioners were then happily enrolled in the list of our National Medical Society.

The advantages which we shall thus be enabled to offer by this projected increase in our circulation and extension of our influence, are—the securing to our Irish medical brethren, as well as to those in England, Scotland, and the Colonies, the largest possible circulation, in Ireland and elsewhere, for their original papers and reports of hospital cases; and the creation of a healthy national medical opinion, free from local jealousies or personalities. The profession in the three countries will be the more powerful by consolidation, and will be enabled to exercise an undoubted and sure effect on the course of legislation on matters medical in the new Parliament.

These changes will not involve any contemplated addition to the price of the Journal, which, in its present greatly enlarged form, will, as heretofore, be furnished, free by post, to members of the Association for the annual subscription of a guinea—an arrangement which is itself one which could only be achieved by an extensive combination, regardless of commercial profit.

We shall aim at a full, earnest, and strictly impartial representation of Irish, as of general British interests.

Next week, we hope to enter more fully into details of the plan on which we propose to carry out the projected arrangement, now under consideration; and, meanwhile, we may be permitted to urge on our Irish members, the importance of giving due circulation to this announcement, and of securing for us all possible support and influence, especially in Dublin, in which city, we have reason to think, our new proposal will meet with hearty approval, not only from the most eminent persons, but also from every rank in the profession, whose interests will be alike and equally considered. We invite communications on this subject.

HOSPITAL RELIEF IN 1867.

In the course of the inquiry which we have for some time been prosecuting into the management and condition of the London hospitals, we have been most frequently struck with the difficulty of obtaining any complete view of the comparative expenditure of hospitals, owing to the very various manner in which the accounts were kept in general hospitals, and in many special hospitals from other causes. To interpret points of difficulty, and to obtain information of various kinds, we have frequently had recourse to the good offices of Mr. J. G. Wilkinson, the Secretary of St. Mary's Hospital, Paddington; and have as often had occasion to appreciate the remarkable skill, care, and prudence, with which he is able to discuss matters of hospital administration. To overcome the difficulty of comparison of which we speak, and to enable the governors of St. Mary's, as of other hospitals, to estimate the relative position of those establishments in respect to expenditure on the various items of hospital outlay, Mr. Wilkinson has prepared a simple form of financial statement, distributing the expenditure under a series of heads, such as Provisions, Nursing, Salaries, and Board, Commission, etc., which allow of comparison, and under which it is easy to arrange the items of a balance-sheet, no matter how the accounts are kept. This form has been issued by the governors of St. Mary's Hospital to the authorities of the other principal hospitals in London, and one or two provincial hospitals. Of the great London hospitals, the St. Thomas's did not supply the desired information, owing to the entirely exceptional and transitional state of the institution; and the Royal Free Hospital held aloof also, for reasons known to itself, and at which others can perhaps guess. Of the special hospitals, only two, the Children's and the Royal London Ophthalmic Hospital, furnished the desired information. The greater number of the great hospitals replied to the circular from St. Mary's with the utmost courtesy and promptitude.

The result is shown in the annexed table, which has been prepared, with great pains and accuracy, by the Secretary of St. Mary's Hospital, to whose kindness we are indebted for permission to publish it. The following commentary is also from the same able pen.

"In considering these tables, a marked difference is at once apparent, not only in the total cost of the several hospitals, but also in the various items of which that cost is composed. But, before proceeding to discuss these points, it is necessary to dispose of the question of the expense of the out-patients; for they bear a very unequal proportion, in respect to numbers, to the in-patients at the different hospitals, and, consequently, unless the sum expended in their relief is previously deducted, an unfair comparison of the cost of the in-patients must necessarily result. It is a matter of much difficulty to decide what the actual cost of each out-patient really is; the medicine is naturally the chief expense; for beyond this is merely to be added that of dispensing, service, etc. The sum expended in drugs ought, therefore, to furnish an easy guide in making this calculation; but such does not prove to be the case, for in no item is there a greater variation observable. As an illustration, it may be instanced that at the Westminster Hospital 27,183 persons were supplied with medicine at a cost of £572: 10: 11; while at St. George's, where 22,715 persons were dispensed for, the drugs, etc., amounted to 1654: 9: 6. With such figures, it is no easy task to decide as to the amount to be put down for out-patient relief; but, upon a full consideration of the matter, I am inclined to allow one shilling per head as being a sum calculated most fully to cover all expenses connected with that department, and to consider the balance of the annual expenditure as being fairly chargeable to the relief of the in-patients.

"Having settled this question, we come to a comparison of the expense at which the relief of the in-patients is administered at the different London hospitals; the first point in connection with this would naturally be the cost at which each bed is maintained; and were the same system generally adopted, the division of the total cost by the number of beds would at once give the desired result; but as will be seen by a reference to the tables, the number of beds put forth by the different hospitals as being available, does not furnish a fair index to the comparative number actually filled; for while in some hospitals that number approaches very nearly to it, in other cases (as at the London, Middlesex, and Westminster,) the average number of beds vacant daily throughout the year, forms a proportion approaching to one-fourth, and even one-third, of the total number of beds which the hospital contains; this, of course, would act very unfairly for purposes of comparison to-

Expenses of Hospital Administration and Relief.

	London General Hospitals.						
	Charing Cross.	Guy's.	King's College.	London.	Middlesex.	St. Bartholomew's.	St. George's.
Number of Beds	120	560	162	516	310	650	335
Average Number of In-patients Resident, daily, throughout the year	93½	502	140	385	226	538	304
Number of In-patients Admitted during the year	984	5245	1781	4334	2069	5170	3705
Number of Out-patients (including Casualties	20,746	75,089	31,958	33,932	18,081	127,295	18,664
Number of Lying-in Cases Attended	215	1727	691	510	2821	568	346
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cost of Provisions, etc., for In-patients (including Ale and Porter, and Oilman's Goods)	1865 5 2	6723 16 7	1680 0 0	*c*8799 0 0	4660 5 0	*f*14,034 14 11	5876 2 2
Wine (Port and Sherry)	232 8 8	492 18 0	152 0 0	1011 0 0	281 1 0	747 17 9	268 18 3
Spirits (Brandy and Gin)		366 4 0	280 0 0	325 0 0	286 11 6	659 14 7	405 1 3
Drugs (including Spirits of Wine, Herbs, and Leeches)	419 9 3	3101 16 0	730 0 0	2047 0 0	1254 12 5	2382 2 1	1255 2 3
Dispensary Sundries (including Plaisters, Lint, Meals, Bandages, etc.)	491 14 1		431 0 0	1176 0 0		1154 19 2	399 7 3
Surgical Instruments		301 18 3	100 0 0	237 0 0	210 12 9	458 2 1	143 14 6
Salaries of Officers (including Cost of Board)	*a*406 18 10	5389 3 7	1255 0 0	*a*2065 0 0	*a*938 10 7	4731 13 4	1458 8 0
Wages of Porters and Servants (including Board-wages or Cost of Board)	*a*233 9 1	4392 11 7	502 0 0	*d*1820 0 0	3612 5 1	1902 12 4	*d*950 8 3
Wages of Nurses, Extra Nurses, and Scourers (including Board-wages or Cost of Board)	955 14 3 (*b*246 5 6)		1332 0 0	2620 0 0		3629 14 2	2137 15 1
Washing	156 11 2	355 18 5	426 0 0	*e*0 0 0	*e*0 0 0	613 2 6	613 2 0
Coals, Gas, and Water-Rate	376 16 10	1786 6 4	910 0 0	1590 0 0	758 2 10	1662 0 11	821 19 0
Bedding and Linen	209 8 0	1013 5 6	208 0 0	517 0 0	421 11 4	960 5 11	618 10 0
Miscellaneous Expenses (including House Repairs, Stationery, Printing, Advertisements, Postage, etc.)	1143 4 6	3000 0 0	1331 0 0	3387 0 0	2189 10 10	694 1 1	828 18 10
Collector's Commission	40 15 0	0 0 0	51 0 0	93 0 0	110 14 0	0 0 0	224 3 5
Total Cost of Maintenance	6778 0 4	26,923 18 3	9388 0 0	25,687 0 0	14,723 17 4	33,631 0 10	16,001 10 3
Less Cost of Out-patients	1048 1 0	3840 16 0	1632 9 0	1722 2 0	1045 2 0	6393 3 0	950 10 0
Total Cost of In-patients	5729 19 4	23,083 2 3	7755 11 0	23,964 18 0	13,678 15 4	27,237 17 10	15,051 0 3
Average Cost of each Bed	47 14 11	41 4 4	47 17 5	46 8 10	44 2 6	41 18 1	44 18 6
Ditto ditto actually occupied	61 5 6	46 2 9	55 7 11	62 4 11	60 10 6	50 12 6	49 10 2
Average Cost of each In-patient	5 16 5	4 8 0	4 7 1	5 10 7	6 7 4	5 5 4	4 1 2
Proportion of In-patients admitted to each bed occupied	10.5	10.5	12.7	11.2	9.0	9.6	12.2

(*a*) Not including board. (*b*) Board of officers and servants. (*c*) Including board of officers, and partial board of nurses and servants. (*g*) Including spectacles and artificial eyes.

wards those hospitals who really keep all their beds in full operation, as at St. George's, King's, Guy's, and St. Mary's, the average cost of each bed being naturally very much reduced when a large number of empty ones (by which no expense is incurred) are included in the division. The only fair mode of comparison is therefore to be found by calculating the cost of each bed *actually occupied*, and this is accordingly given in the tables, and shows a variation ranging from £62 : 4 : 11 in the London, to £39 : 12 : 6 in the Westminster.

"A fair test of the extent of the benefits conferred by each hospital, may also be gathered from a consideration of the number of *persons* received during the year; for although a certain number of beds may be kept constantly filled, it follows that if these beds are occupied for long periods by chronic or incurable cases, fewer persons can be admitted to the hospital, and the benefits of the institution be less widely diffused. The number and the cost of each patient admitted, forms, therefore, another interesting subject for comparison; and the average of cost in this case is accordingly given. As regards *numbers*, a consideration of the proportion of patients to beds occupied, shows that while in some cases it was restricted to nine, in others as many as twelve patients and upwards occupied the same bed during the year.

"It has been shown that the cost of each occupied bed varies considerably in the different hospitals; but on referring to the statistics, I am unable to arrive at any rule by which to account for it. The size of a hospital ought, and doubtless does, exercise some slight influence in the question of cost, an institution containing from 300 to 400 beds necessitating but a small addition to the administrative staff required for one of only half that size, and consequently in the matter of salaries some advantage ought to be obtained by the former; but in other respects the size of a hospital cannot have much effect upon the cost of each bed; for the expense of provisions, nursing, and medicine ought merely to increase in proportion to the number of beds occupied, and ought, therefore, on comparison, to furnish the same comparative result; it is therefore hard to understand why such a variation as has been shown should exist. In endeavouring to trace it, by referring to the different items composing the year's cost, we find a fresh difficulty caused by its having been found impossible to adhere exactly to the form drawn up for the statement of expenses; but this does not affect the more important items to any great extent, and glancing at the first one given, viz., that of provisions, or to use another term, "diets," we at once find some very startling results. St. Mary's, with 141 beds occupied, expends £2,564 upon the patient's food; while King's, with almost exactly the same number, costs only £1,680, a variation of nearly £900 in this

Expenses of Hospital Administration and Relief.

LONDON GENERAL HOSPITALS.			LONDON SPECIAL HOSPITALS.		PROVINCIAL GENERAL HOSPITALS.				
St. Mary's.	University.	Westminster.	Children's.	Royal London Ophthalmic.	Birmingham General Hospital.	Bath Royal United Hospital.	Leicester Infirmary and Fever House.	Liverpool Royal Infirmary.	Manchester Royal Infirmary.
157	130	191	75	40	235	121	200	260	249
141½	116	131	71	37	174	57	146	228	203
1777	1260	1516	786	842	2910	787	1624	2905	2649
18,209	31,841	25,667	12,574	17,211	18,908	11,008	7793	2621	24,741
343	797	None.	None.	None.	None.	None.	None.	None.	None.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
2564 9 10	2264 3 6	2130 8 6	1257 12 6	892 19 5	3393 8 10	1272 5 8	2334 12 9	3407 8 3	5093 5 11
209 7 8	455 18 10	206 19 6	127 5 8	18 3 10	94 8 0	57 19 0	131 6 0	535 14 6	522 4 0
220 19 0		142 1 0			186 8 6	61 0 9	31 7 0		
657 17 9	1285 16 3	340 13 3	398 9 7	225 5 5	699 4 3	356 12 1	349 7 1	416 17 10	859 4 9
248 0 0	249 13 5	231 17 8	187 7 10		541 8 7	46 16 10	77 4 8	219 7 10	899 5 11
41 7 0	196 2 6	43 11 8	108 13 6	*g*105 7 9	708 8 6	73 17 1	13 16 10	72 0 0	134 0 1
1141 10 0	1120*a*15 0	1099 6 4	*a*549 5 0	*a*688 12 0	889 7 8	523 0 0	321 10 0	759 2 3	1129 6 5
706 8 5		945 6 7	*a*471 17 8		1019 15 11	330 0 0	268 10 0		1960 2 2
1470 13 8	1209*a*10 7					(308*h* 8 9)	430 3 10	1250 0 0	
322 15 9	598 3 1	269 3 3	236 11 10	88 1 6	0 0 0	141 13 8	*e*0 0 0	*e*0 0 0	*e*0 0 0
533 17 6		547 5 10	102 7 10	122 16 6	702 13 6	222 5 6	516 11 1	544 0 0	791 19 9
263 0 9	1166 2 1	179 9 7	72 2 3	382 11 10	220 2 7	36 4 2	77 18 9	1242 13 4	457 3 10
806 5 11		268 8 10	570 13 8		1308 13 0	160 1 3	483 5 7		1368 8 10
174 16 7	64 6 0	50 1 3	144 18 5	26 1 2	93 14 6	57 11 9	0 0 0	0 0 0	100 12 1
9361 9 10	8610 1 3	6474 13 3	4227 5 9	2549 19 5	9857 13 10	3637 16 6	5035 13 7	8447 4 0	13,315 13 9
927 12 0	1631 18 0	1283 7 0	628 14 0	860 11 0	945 8 0	550 8 0	389 13 0	131 1 0	1237 1 0
8433 17 10	6978 13 3	5191 6 3	3598 11 9	1689 8 5	8912 5 10	3087 8 6	4646 0 7	8316 3 0	12,078 12 9
53 14 4	53 13 7	27 3 7	45 6 3	42 4 8	37 18 5	25 10 3	23 4 7	31 19 8	48 10 2
59 12 8	60 3 2	39 12 6	50 13 8	45 13 2	51 4 4	54 3 3	31 16 5	36 9 5	59 10 0
4 14 11	5 10 9	3 8 5	4 11 6	2 0 1	3 1 3	3 18 5	2 17 2	2 17 3	4 11 2
12.6	10.9	11.5	11.0	22.7	16.7	13.8	11.0	12.7	13.0

(*d*) Including scourers. (*e*) Included in wages, soap, soda, etc. (*f*) Including board of nurses.
(*h*) Board of officers and board-wages, and washing for nurses and servants, etc.

one article! Again, the provisions at Charing Cross, with about three-fourths of the number of beds occupied at King's, cost £1,865, being £185 *more* than the larger hospital. As an instance of economy in diets, Guy's stands peculiarly prominent; the patients in that hospital being fed at a little more than half the cost of those at St. Bartholomew's, and at about one-third less than those at St. George's, St. Mary's, or Middlesex. These facts are sufficient to prove that the expense of the diets at the different hospitals forms one great cause of the variation in the cost of maintenance; and if we consider the nursing, I think we shall find another cause equally surprising, or rather more so; for the different views of the medical officers on the subject of diets will naturally affect, in that particular, the expenditure of the institution to which they are attached; whilst the cost of nursing, one would imagine, ought to exhibit but little variation; nevertheless, we find that the nursing at King's and St. Mary's costs about two-thirds of that at St. George's, and nearly half of that at Guy's, although the former contains more than twice, and the latter more than three times, the number of occupied beds. The Westminster Hospital contains about the same number of occupied beds as St. Mary's, while the expense of nursing does not represent one-half of the amount.

"The subject of nursing and the proportion of nurses to patients, has been recently investigated by Dr. Gibb, of Newcastle-upon-Tyne, and a very valuable table has been drawn up by him as the result of his inquiries; viewing the importance of this subject in its effect upon the welfare of the sick, it may be safely asserted that until the sum expended upon it degenerates into extravagance, too liberal a provision for so important a department of a hospital can hardly be made.

"The cost of drugs (and dispensary sundries), as has already been shown, varies considerably in the different hospitals; but assuming that proper vigilance is exercised in the dispensary, this must be entirely due to the mode of prescribing adopted by the medical staff, and which cannot, of course, be controlled either by boards or committees of management.

"Under the head of salaries, some difference of expenditure is observable; but how caused it is impossible to say, without knowing the items of which it is composed; the salaries of the ordinary functionaries, as a rule, vary but slightly, and it may therefore be concluded that in some cases additional officers are employed, the necessity for whose services is not generally recognised.

"On a consideration of the whole matter, I am inclined to believe that the difference found to exist in the cost of our London hospitals, is mainly owing to the extra diets, the drugs, and the system of nursing.

"The first is almost entirely under the control of the medical officers; the second is wholly so. The diet scales at the different hospitals do not vary to any great extent, and consequently the excess in the cost of provisions must be attributed to the use of extra articles of diet; that of drugs must depend upon the mode of prescribing adopted; in the latter case, perfect uniformity cannot be expected; but it is to be regretted that upon the question of nourishment and food so great a difference of opinion should exist.

"It is also much to be regretted that some system of uniformity cannot be devised for keeping the accounts of hospitals, as it would greatly facilitate such inquiries as has been here attempted, and would enable the governing bodies, by a contemplation of the expenditure incurred by other institutions, in many cases to devise means for checking their own.

"With regard to the feasibility of retrenchment in our hospital expenditure, I think that most persons, on a consideration of the accompanying tables, will arrive at the conclusion that it is practicable in some cases; but it is evident that it can only be achieved by a united and vigorous course of action on the part of all connected with the conduct and working of the institution.

"It will be seen that the statistics of a few provincial hospitals are given with those of the London ones; but this has been merely as a matter of curiosity, and not with any view to attempting a comparison for practical purposes, as it is evident that the two classes of institutions cannot be maintained at anything approaching an equal rate of expenditure. It will be observed that these hospitals, like the London ones, also differ much from each other in their cost of maintenance, and there is one point in connection with them that I think deserving of special notice; it is the proportion of patients to beds; this, it has been shown, in the case of the London hospitals, varied from 9 to 12.7; while in the provincial ones we find it ranges from 11 to 16.7 to each occupied bed. From the large proportion of chronic cases which are supposed to be admitted to country infirmaries, one would hardly have been prepared for such a result."

THE DIRECT REPRESENTATION OF THE PROFESSION IN THE MEDICAL COUNCIL.

At the approaching meeting of the Committee of Council of the Association, the duty which the Council have undertaken, of endeavouring to secure for the profession a direct representation in the Council, will undoubtedly receive earnest consideration. As this matter is in the hands of men both earnest and able, it will be premature to suggest here any precise form of action. But the subjoined correspondence, between Dr. Andrew Wood and one of the candidates for the representation of the University of Edinburgh, is important, inasmuch as it points to a course of political action for which our Association is particularly well organised, and which, with the cordial co-operation of our Branches and members, might be entered upon with great effect during the pending electoral campaign. Not only might the amendment of the Medical Act thus be made a hustings question, but also the amelioration of the position of Poor-law medical officers, as was last week suggested in this JOURNAL. It may be added that the importance of the suggestion has been immediately perceived by political journals, and formed the subject of a leader of considerable weight in the *Observer* of Sunday last. The following is the correspondence referred to; it has been forwarded to us for publication by Dr. Andrew Wood, of Edinburgh, who has shewn a warm sympathy with this object, and deserves the best thanks of all those interested, for his vigorous and able advocacy of this important measure.

"9, Darnaway Street, Edinburgh, Oct. 6th, 1868.

"My dear Sir,—Though it is quite obvious that the contest for the representation of the Universities of Edinburgh and St. Andrews raises mainly an issue in general politics, yet it is no less obvious, considering that the constituency includes such a numerous body of medical men, that medical politics must necessarily exercise no small influence on the votes of the constituency. I think, therefore, that I have a right to inquire from you, as a candidate for this University, whether your attention has been directed to the working of the Medical Act, and to the amendments which have been proposed with the view of rendering it more efficient, both as regards the medical profession and the public. Especially I wish to ascertain your views in regard to a question of general interest to the medical profession; viz., the Direct Representation of Registered Practitioners in the Medical Council. Of course, I have no wish nor right to exact any definite pledge from you; but I wish to ask if, in the event of your election, you would be disposed to give a favourable consideration to any well devised plan which may be brought forward whereby a larger amount of the popular element than at present may be infused into the General Medical Council, by enacting that a certain proportion of the members of that Council shall be returned by the direct suffrage of registered medical practitioners.

"I remain, yours sincerely, "ANDREW WOOD, M.D.

"A. C. Swinton, Esq., of Kimmerghame."

"Kimmerghame, Dunse, Oct. 8th, 1868.

"My dear Sir,—The subject to which your letter refers is not new to me. Having been a Professor in Edinburgh at the date of the passing of the Medical Act, and for many years previously, I took part in the deliberations of my colleagues of the Faculty of Medicine on that and other measures of medical reform. It was, I think, generally expected that the constitution of the General Council under the Act of 1858 would have proved satisfactory to the profession and the public. I can readily believe, however, that that constitution might be improved by the admission to the Council of a certain number of members representing directly the registered medical practitioners. And, if I am so fortunate as to obtain a seat in Parliament, I shall be prepared to give a favourable consideration to any well considered plan for attaining this object, which may meet the wishes of those immediately interested in the question. I may be permitted to add, that there are other matters connected with your profession, to which, were I a University representative, my attention would be specially directed. Such, for example, are the inadequate position and emoluments of the medical officers of the navy and army, and the grievances complained of by those members of the profession who are engaged in the administration of the Poor-law.

"I am, yours faithfully, "A. CAMPBELL SWINTON.

"Dr. Andrew Wood."

THE Mayor of Cork, son of the late Dr. Lyons, has presented his late father's library to the Cork Medical Club.

THE late Harvest Thanksgivings in the City and neighbourhood of Worcester produced to the Infirmary £52:12:11.

AN epidemic of dysentery is causing great mortality at Chinon, Châteaurenault, and other places in Indre-et-Loire.

IT is proposed to erect a Convalescent Home at Dunoon, in Scotland. The cost will be nine or ten thousand pounds.

IN accordance with a recent alteration in the bye-laws at the London Hospital, Mr. Couper, who has held the office of assistant-surgeon for seven years, is promoted to be surgeon to the out-patients.

THE following are the arrangements for the early part of the Session of the Western Medical and Surgical Society of London. The first meeting will take place on Friday, October 16th. The President, Mr. J. R. Lane, will take the chair at 8 P.M., and will read a paper "On the Prevention of Contagious Venereal Disease."—Friday, November 6th, Practical Evening for the narration of cases and the exhibition of specimens.—Friday, December 4th, a paper will be read by Dr. Handfield Jones, F.R.S.

WORKING OF THE CONTAGIOUS DISEASES ACT.

THE following is an extract, with which we have been favoured by authority, from an official report by Dr. Barr, the medical officer under the Act at Aldershot, to the Secretary at War.

"In a former report, I had the honour of laying before you many and weighty reasons for the absolute necessity of strict and sufficiently frequent periodical examination. It is gratifying to be able to state that at this station a considerable advance has been, and is being, made in carrying out this exceedingly important duty. The number of registered prostitutes inhabiting the camp and neighbourhood will average about 300; and, as already stated, there have been 871 attendances on the appointed and a few special days during the last three months. But, although the large majority of these women have voluntarily submitted to attend on these occasions—each being reminded, or 'warned', when her particular time for appearing has arrived, by the police—a laborious task falls on the latter. In addition to the constant coming in of strange females, and the necessary inquiries and close observation connected with them, some few, even of those long resident here, have persisted in existing out of doors, in drains and obscure places, and being in a miserably dirty and impoverished condition, have from time to time succeeded in concealing themselves from the constabulary. Very lately, a party of four, who had thus eluded detection, were discovered; the smoke from a fire around which they were seated proving a guide to the police. On examination, it was found needful to detain all for treatment in this hospital.

"In the early part of July, a number of unfortunates, some of whom—many very young—had left their homes to follow regiments who had newly joined this camp—others who were old well known prostitutes, most of them having been many times in various hospitals and gaols—made their appearance at this station. Lately, also, numerous women, from near and distant localities, seeking employment during the season as hop-pickers, were, in the evenings, detected in both camps avowedly for the purpose of prostitution. In both events, the conduct of the inspector of police was most praiseworthy. By sheer hard work, night and day, he, with his men, hunted them up; and, in a very short period, I believe, every one had been brought for examination. By far the greater number were found diseased, and consequently confined in the hospital for treatment.

"In many instances, the women duly appreciate the advantages, and gladly avail themselves of these inspections. It is no uncommon circumstance for a girl to attend, having a very recent sore or newly discovered discharge, feeling confident, as is really the case, that, having yielded herself for treatment in an early stage of her disorder, her detention in hospital will become much shortened thereby.

"The stringent application of this section of the Contagious Diseases Act to the whole class of known prostitutes and suspected persons, is essential to secure those benefits sought for and so much needed, not only by our soldiers and sailors, but the community at large.

"Experience has shown that, to trust to information received from diseased soldiers, is an useless and unsafe method to adopt; since, if even they can give a correct reply, they are not to be depended upon—they oftener screening the affected person, and condemning another with whom they have quarrelled, than giving a truthful account of the source of their disease. Again, the object of the Contagious Diseases Act being to prevent the occurrence of, as well as the cure of the disease, waiting for information from disabled men, is allowing that mischief to have occurred, which ought, and would have been, prevented, had the woman, by timely examination, been detained from her avocation until free from her dangerous distemper.

"I am decidedly of opinion that the extension of the Act to the civil population, now so warmly advocated by the intelligent classes of all large towns, is imperative for the welfare of the soldiers; since every garrison is beset by women, creeping in at all times, from divers places, too often exhibiting, not only filth and general depravity, but the worst forms of a loathsome and destructive disease.

"The following is a summary of the contents of the report sent to the Secretary of State for War, October 1st.

Patients remaining under treatment, June 30th	47
Admissions since that day	183
Total under treatment during the quarter	230
Character of Disease.	
Primary syphilis, uncomplicated	10
Gonorrhœa	120
Primary syphilis and gonorrhœa	38
Primary syphilis and secondary syphilis	1
Gonorrhœa and secondary syphilis	12
Gonorrhœa and syphilis, secondary and primary	2
Total	183
Discharged: Cured	178
Uncured (from pregnancy)	4
To union	3
To prison	1
Remaining under treatment, Sept. 30th	48
Known to be married	16
,, widows	11

Average time required for cure, 22.5 days.

During the quarter, the number of attendances for periodical examination was 871. Of these, there were found diseased and

Detained in this hospital	183
Sent to London Lock Hospital	45
Total	228"

THE CLINICAL SOCIETY.

THE first meeting of this Society was held in the rooms of the Medical Society of London, 32A, George Street, Hanover Square, to which the Society has removed in consequence of the high rent required by the Royal Medical and Chirurgical Society for the use of the rooms in Berners Street. There was an overflowing attendance. In the absence of Sir Thomas Watson, Mr. Paget presided. Mr. Paget's eloquent opening address is given in another part of the JOURNAL. The papers read were, Cases of Acute Rheumatism complicated with Disease of the Heart, by Dr. Peacock—Ichthyosis Glossæ, by Mr. Hulke—On certain Cases of Phthisis with Contracted Lung, by Dr. Douglas Powell. The discussion on Dr. Powell's paper was deferred till next meeting, when Dr. Julius Pollock will read a case of so-called Fibroid Phthisis.

THE MEDICAL CLUB.

A GENERAL meeting was held at Spring Gardens, on Wednesday, October 14th; Sir William Fergusson, Bart., in the chair. About sixty members were present. A statement was read, showing the progress the Club had made since the inaugural meeting, held at the Hanover Square Rooms, on November 8th, 1866. The Committee announced that, as the circular which was issued in July last requesting the members to increase their annual subscription after the end of the present year had not met with the unanimous support anticipated, it was decided to withdraw it, and to continue the subscriptions of all the present members the same as heretofore; and, in lieu of increasing the subscription, it was proposed that those members who felt disposed to do so, should join in guaranteeing a small addition to their annual subscription for the next two years, should such be found necessary, to meet temporary excess of expenditure over income; some of the members then present did so, to the extent of £120, varying in sums from one to five guineas annually. After a lengthened discussion, the following resolution was, on the proposition of Dr. Richardson, seconded by Dr. Carpenter, adopted:—"That the questions of the future government of the Club, and the responsibility of its members, be referred to the Committee for consideration; and their report to an adjourned general meeting of the members, to be held at 9, Spring Gardens, a month hence." A vote of thanks to the chairman and the honorary secretary concluded the business of the meeting.

THE NEW WATER-SUPPLY OF DUBLIN.

DISSATISFACTION having arisen as to the brownish colour and sometimes turbid condition of the Vartry water just introduced into Dublin, Professor Cameron, the city analyst, has been inquiring into the causes of these faults. While the water from the reservoir holds in solution three grains of organic and two of mineral matter per gallon, these quantities become doubled before it reaches the houses of the citizens; for the lime and vegetable matter deposited in the old pipes, through which the previous impure water was distributed, become dissolved. It is, therefore, questionable whether the expense and inconvenience of laying new pipes should not be borne in cities where a pure supply is being exchanged for an impure one.

SUCCESSFUL PROSECUTIONS UNDER THE MEDICAL ACT.

THE Medical Act has been successfully put in action at Oldbury against persons who have been practising in Oldbury, taking medical appointments to clubs, and practising as surgeons, without holding legal diplomas. It will be remembered that the surgeons of Oldbury have required from the clubs a more liberal remuneration than heretofore, and an effort has been made to defeat them by "importing" practitioners who would accept the vacated posts. The two persons charged were Thomas Holland and Peter Norman Webster, of Blackheath. A Dr. Dempsey, described as "having lately taken to most of the clubs in the town of Oldbury", put forward a statement that Holland was his assistant; and Mr. Timmins, surgeon, of Dudley, was called for the defence of Mr. Peter Norman Webster. But the Bench considered both cases proved, and fined the first named £20 and costs for two offences proved, as he had been previously convicted; and the second £5 and costs, this being the first case against him. The successful vindication of the law in this case must be regarded with satisfaction, especially as the object at the bottom of this violation of the law seems to have been to starve the former club-surgeons of Oldbury into submission to the objectionably low rate of remuneration which the clubs wish to impose, and against which, at the instance of the Birmingham Committee on Friendly Societies of our Association, the surgeons are justly protesting.

DUBLIN ELECTION: SIR D. J. CORRIGAN.

SIR DOMINIC'S name is received with still greater favour than when we last mentioned his candidature. His popularity among his brethren may be judged of by the fact that he was chosen for five successive years President of the College of Physicians, an office usually held for one year only. The public also, who have so generally availed themselves of his professional services, and who can judge of his administrative abilities from his conduct on several public inquiries and commissions, will probably prefer him to the two young gentlemen who are announced as his opponents.

THE FIRE BRIGADE'S NOVEL MANNER OF PRESERVING LIFE.

AT a recent meeting of the Metropolitan Board of Works, one of the members called attention to the report (which had appeared in one of the weekly newspapers) of an inquest, at which it was stated that, in a book of instructions issued by Captain Shaw to the men of the Metropolitan Fire Brigade, he had ordered the firemen to knock down all men trying to escape from a burning house, unless all the women and children had been previously saved. Captain Shaw appeared, in his explanation, not only to admit such to be substantially the case, but also appeared to justify this strange and altogether illegal method of preserving life.

THE MEDICAL STUDENTS OF 1868.

THE following list represents the metropolitan entries of new students for a complete course of education in the medical profession, so far as it can be estimated from entirely trustworthy data. The registration of students ceased on Thursday, the 15th, at 4 P.M., and we are able to furnish exact information. Guy's Hospital, 90; St. Bartholomew's, 86; University, 60; King's College, 39; London, 35; St. Thomas's, 24; St. George's, 23; St. Mary's, 19; Middlesex, 14; Charing Cross, 20; Westminster, 4. It will be observed that St. Thomas's, the London, and St. George's Hospitals, which have each made considerable additions to their establishments during the year, may be congratulated on the improvement in the number of students who have entered. University College has also a very large entry. The total number of students is such as to lead to the belief that the considerable improvement in preliminary educational tests which is still urgently called for, would not mischievously affect the number of aspirants to practise medicine.

A CAUTION TO DRUGGISTS.

IN a case before the magistrate of the Bow Street Police Court on Tuesday last, a woman was charged with attempting to commit suicide with poison purchased of some druggist whom she did not know, and who did not know her. The magistrate, after dealing with the case, is reported to have stated that it was important to make it generally known, and especially to remind all who deal in drugs, that an Act had recently been passed making it unlawful to sell any poison unless labelled with the name of the seller and of the article sold, and with the word "poison". Besides this, certain poisons commonly used are not to be sold at all to any one unknown to the druggist, unless the stranger be introduced by one whom the druggist does know. As regards these latter kinds of poison, the druggist is required to enter in a book the name and address of the purchaser, and what he wants the drug for; which entry must be signed by the purchaser, and, if he be a stranger to the druggist, by his introducer. Unless these regulations be complied with, the seller is liable to heavy penalties on summary conviction before a magistrate. In this case, it did not appear that any of the conditions had been complied with; but he did not ask the name of the chemist, as he might, perhaps, not have known of the Act which was so recently passed. He then said that, if the chemist had been brought before him, he would have had no alternative but to inflict a penalty of £5 for the first offence, and, if repeated, £10 for the second. He hoped that this warning would go forth to the public, that the provisions of this most salutary enactment might become known, and that chemists and druggists might be on their guard against infringing it. We are glad to see so decided an expression of determination to carry into effect the Act of last session relating to the dispensing and selling of poisons.

CARBOLIC ACID AS A DISINFECTANT.

THE following is a copy of an official report by Mr. N. W. McCoy, F.R.C.S., Colonial Surgeon of Sierra Leone, to the Governor of Western Africa, on the subject of the sanitary uses of carbolic acid.

"In compliance with your Excellency's wish, that I should express my opinion on the merits of carbolic acid from my experience of its use in the large colonial hospital here under my charge, I have pleasure in stating that I have every reason to speak highly in its favour.

"I have had it used very extensively: 1, as a disinfectant and deodoriser; 2, as an antiseptic dressing for wounds and foul sloughing and phagedenic ulcers; 3, as a stimulating dressing for weak, unhealthy sores. Its disinfectant and deodorising properties are undoubted. I have it used in the form of liquid and powder; the former for the closets and urinals, etc.; and the latter, on the floor of the wards, the deadhouse, etc. There is nothing disagreeable to my senses in the odour, particularly in the use of the powder. As an antiseptic dressing for foul ulcers, I have especial opportunities of testing its value in the treatment of the many cases of leprosy that are received into the hospital; and I have found it far superior to any application I have ever seen used as an antiseptic dressing. Some cases, absolutely unapproachable from the stench, have, on one or two dressings, become free from a repulsive smell. It diminishes the secretion of pus in suppurating wounds; and its solution in oil, in the proportion of one to eight or ten, forms a good dressing for weak granulating ulcers.

"The British settlements on the Coast of Africa are mostly situated at the estuaries of rivers, where, from the proximity of fresh or brackish water and the great heat of the climate, insect life is most prolific, rendering the existence of Europeans almost unbearable, especially at certain seasons. Carbolic acid is found to be a preventive to the attack of insects; and I have it, from the highest authority in the colony, that sponging the skin with a weak solution is an effectual safeguard, and an Englishman may thereby be enabled to repose in comfort, without being subjected to that unsupportable pest of tropical climates, the attack of the sleepless, ever voracious mosquito."

SOLDIERS' TEETH.

MR. JAMES OAKLEY COLES, of Wimpole Street, Cavendish Square, London, writes to us as follows: — Will you allow me to draw your attention to the fact that, while every public institution for the treatment of disease has a dental surgeon attached to its staff, no provision adequate to the necessities of the case is made on behalf of the soldiers in our army? The importance of preserving the teeth, as a means of maintaining good general health, is a fact that few will dispute; yet, apart from the regimental surgeon's ability to extract teeth, no steps are taken (so far as it is possible to learn) to preserve these organs when attacked by caries or other forms of disease to which they are liable. It is hardly possible to imagine that soldiers enjoy a greater freedom from suffering in this respect than the rest of our population; yet, while civilians esteem the services of the dentist most necessary, the existence of such a branch of surgical practitioners is, in official quarters, ignored. The Army Medical Reports contain no record of operations on the teeth; and, with the exception of gentlemen entering upon the Indian Department of the Medical Service, little care is taken to become acquainted with the operations of dental surgery, beyond the very summary one of extraction. In drawing attention to this matter, I do not wish to suggest the appointment of dentists to regiments, but that, in all large towns where any considerable number of soldiers are quartered, a competent practitioner should be appointed to make an examination of the teeth at certain fixed times. In the licence in dental surgery of the Royal College of Surgeons we have a legal and recognised standard of proficiency; and we have, at the same time, a sufficient number of dental licentiates to render the carrying out of this matter no great difficulty.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE Medico-Psychological Association, under their recently adopted rule, will hold their first quarterly meeting for reading papers and for discussion in the Library of the Royal Medical and Chirurgical Society, on Monday, October 29th. Papers will be read by the President, Dr. Sankey, and by Dr. Tuke. We are glad to learn that it is intended to hold the annual meetings of this Association on the day before the meeting of the British Medical Association. It will accordingly take place next year at Leeds. This will enable the members of the Medico-Psychological Association to attend our annual meeting, if they wish to do so, without inconvenience.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

A CRUEL instance of the injustice of the law, which deprives medical officers of the Poor-law of the right to a superannuation pension, has recently occurred in Ireland, where Dr. Suffield, of the Clifden Union, has been compelled to retire, paralysed and bedridden from exposure during twenty-seven years of service; and the guardians are unable by law to make even the paltry provision of fifteen shillings a week pension, which otherwise would have been the amount to which his small working salary would have entitled him. We shall return to this subject. It is one which we shall earnestly commend to the attention of the Poor-law Medical Reform Committee of our Association, at its approaching first meeting for business.

FORMATION OF A NEW BRANCH OF THE BRITISH MEDICAL ASSOCIATION IN GLOUCESTERSHIRE.

WE are happy to be able to announce that active measures are in progress with a view to the formation of a new Branch of the British Medical Association in Gloucestershire. There are already about forty of our members resident in the county unattached, and above two hundred practitioners, exclusive of those resident at Bristol and Clifton. The geographical limits of the Branch may easily be so arranged as to work conveniently with the highly important and flourishing Branch which is seated at Bath and Bristol. A meeting is to be held at the Bell Hotel, Gloucester, on the 22nd instant, at 4 P.M., to arrange preliminaries. Mr. Alfred Fleischmann, Cheltenham, is provisional Honorary Secretary. Every step towards the extension of the Association, and the consequent organisation of the profession and consolidation of its influence, must be a source of legitimate satisfaction to all the well-wishers of our calling, as of our Association.

THE EXECUTIVE COMMITTEE OF THE GENERAL MEDICAL COUNCIL.

THE holidays being now fairly over, corporate and scientific bodies will begin to renew their meetings. Ere long, we understand, the Executive Committee of the Medical Council, to which important body the business of the Council during its recess is delegated, will resume its meetings. On looking over the last published minutes of the General Medical Council, we find the following subjoined duties transmitted to them at different periods, and it may be of interest to present them in a collected form.

To prepare annually, and lay before the Council for recognition, a list of Examining Bodies, whose examinations shall fulfil the conditions of the Medical Council as regards preliminary education.—To prepare petitions to both Houses of Parliament, praying for early legislation on the subject of secondary education in schools.—To watch over any Bill that may be introduced into Parliament for the improvement of general education, with a view of having such arrangements made as will enable the various licensing bodies to secure the due preliminary education of medical students.—To make orders for giving in future to every person whose name shall be entered for the first time on the *Medical Register*, a copy of the published *Register* for the year in which his name has been entered.—To take such steps as the Committee may deem best to obtain from the Government suitable apartments for the use of the Council.

SOCIAL SCIENCE ASSOCIATION.

Birmingham Meeting, 1868.

THE Twelfth Annual Meeting of this Association opened on Wednesday morning, October 1st, with a meeting of the Council, held under the presidency of Mr. G. W. Hastings. It was attended, among others, by Mr. George W. Hastings (President of the Council), Dr. Rumsey (Cheltenham), Dr. Farr, F.R.S., Dr. A. P. Stewart (London), Mr. Clayton, Dr. Hardwick, Mr. Gamgee, Dr. C. J. B. Aldis, Rev. Dr. Bell (Goole), Dr. S. Macadam (Edinburgh), Dr. A. Hill, Mr. Langston Parker, and Dr. Birt Davies. A special service was held at St. Philip's Church in connection with the opening of the Congress. The preacher was the Bishop of Worcester. At the first general meeting of the members and associates on Wednesday evening, the Earl of Carnarvon presided, and delivered an address remarkable for its sober, earnest, and judicious treatment of the principal topics of discussion in the various departments. Referring to the subject of Sanitary Science, he said:—This merit, at least, it has, that, not only does it affect the very life of the nation and the preservation of the race in its physical strength and vigour, but that, as a practical science, it is singularly free from all uncertainties. Given certain facts, and certain consequences will almost, if not quite, invariably ensue; given certain remedies, and the cure is demonstrably certain. It is, of course, impossible for any science or human vigilance to make the life of a large town as healthy as that of the country; but how much can be achieved even in unfavourable circumstances is shown by the fact, that of the great cities of England the health of London now stands the highest, and, if I mistake not, next to London ranks that of Birmingham. To the study of this important question this Society has never been wanting; but whilst on the subject, I cannot withhold my passing tribute from the great meeting of the British Medical Association, so lately held within the walls of that venerable and illustrious University, which welcomed her learned guests with all her wonted and gracious hospitalities, and by an address from their President, as eloquent as it was various in the subjects on which he spoke. Of the scanty legislation of the last Session of Parliament on this subject, it is right that I should briefly call your attention to the Pharmacy Act, the Vaccination Act, the Act for the Improvement of the Dwellings of Artisans and Labourers, and lastly, the Poor Relief Act. Of the Pharmacy Act, I will only say that it was due to the exertions of private members of both Houses, and that by regulating the sale of drugs it may, I hope, prove of considerable value. The Vaccination Act was a Government measure; but it is one pronounced by the Committee of the British Medical Association to be so clogged by restrictions that they anticipate but little increase of public vaccination under its provisions. It is not a satisfactory reflection that though vaccination owed its birth to the genius of an English physician, other countries, by a wider use of its beneficent properties, have shown a more intelligent appreciation of it. The Act for the Improvement of the Artisans and Labourers' Dwellings, introduced and carried by private members, was referred to a Select Committee of the House of Lords, by whom it underwent considerable alteration. The importance of its subject matter cannot be overrated; and, beset as it is with difficulties, the question is one with which, in the onward march of our national life, we must deal. For it is in the dwellings of a people—especially of a northern people—that their mind and character are formed, and, as it has been well said, that their full place in the scale of morality and intelligence will be determined. The Poor Relief Act was a Government measure, intended to be the legislative complement in country workhouses to the Act of 1867, which had done so much for the improvement of the metropolitan unions. Recent disclosures, as it will be remembered, had brought home to us the painful conviction that many of the unions in the country, which, from a change of circumstances there as in London, had become infirmaries for the sick and aged, rather than workhouses in the old sense of the word, were discharging their new duties very defectively. There was, in some cases, both an insufficiency of inspection, and an absence of comfort, decency, and of the necessary medical and surgical appliances, which were little creditable to our central and our local administration. A commission, issued by the *Lancet* newspaper, did good service, and contributed towards the introduction of the Act. I wish that I could think that that Act was an entirely satisfactory and conclusive settlement of the question with which it was intended to deal. There are clauses, such as those empowering the Poor-law Board to appoint paid officers, and to order certain furniture and fixtures in country workhouses which will be useful; but such clauses are fewer than I could desire. The idiotic paupers who do not fall within the legal definition of insanity, so as to be qualified for admission to the county lunatic asylums, and who, by a recent return, are said to exceed ten thousand persons in the country districts, are, to their own misery and the misery of all who are obliged to associate with them, still left in the workhouses. The composition of the boards of guardians remains wholly unaltered, leaving a door to the recurrence of mischief similar to that which has occurred; and, so far as the Act is concerned, official inspection, which has been proved to be defective, has undergone no change. A resolution, however, for an increase in the number of inspectors and an infusion of a scientific element was carried in the Select Committee of the House of Lords, to whom the measure was referred, and will, I trust, one day bear fruit.

In Section III, under the Presidency of Dr. Rumsey, the proceedings opened by Captain CLODE, who read the report of the Joint Committee of the British Medical Association and of this Association on the Amendment of the Sanitary Laws, and the administration and organisation of State Medicine. [This has already appeared in our pages.]

Mr. W. H. MICHAEL moved that the report be received and adopted, and that it be a recommendation to the Council that the Committee be reappointed. This was seconded by Mr. Godwin and carried.

"Oldbury; its Sanitary Condition and the Efforts to Improve it," was the subject of a paper read by Mr. W. H. Hayward, of Oldbury.

Dr. B. FOSTER read a paper written by Mr. John Liddle, Officer of Health for Whitechapel, entitled "What ought to be the Functions and Authority of Medical Officers of Health." Dr. Liddle laid it down that, in order that the Medical Officer of Health might be enabled to exercise proper authority in the discharge of his duties, it was absolutely necessary that: 1. He should not be engaged in private practice, but that his undivided attention should be directed to all those matters connected with the prevention of disease. 2. That he should be entirely free from all local influence. 3. That the area of his district should be of much greater extent than now prevails. 4. That the present number of medical officers of health should be reduced, and an uniform plan of action in all matters relating to the public health be adopted. 5. That the medical officer of health should be made responsible for the sanitary condition of the district, and the Local Boards be freed from all responsibility in the matter, provided that they shall have afforded the Medical Officer of Health everything that he may reasonably require for the proper discharge of his duties. 6. That upon the representation of the Medical Officer of Health of the necessity of carrying out the several clauses in the Public Health Acts, which are only of a permissive nature, the local authority should be compelled to put them in force. 7. That the Medical Officer of Health should have power to engage at the public expense the services of an analytical chemist, and of a skilled anatomist and pathologist, to assist him in the proper discharge of his duties. 8. That the Medical Officer of Health should have power to engage at the expense of the local authority the services of a sufficient staff of sanitary inspectors, who should report to him daily the general and particular sanitary condition of the district, and who should keep a proper record of all inspections made and work done. 9. That the Medical Officer of Health should inquire into every death, the cause of which had not been certified by a registered medical practitioner. 10. That in every instance the fact of death should be certified by a medical practitioner before a certificate of death is given. 11. That, as it is almost impossible to combine in one individual that of a skilled anatomist and pathologist, of a practical and analytical chemist, and one possessing a thorough knowledge of practical medicine and surgery, it would be of more service to the public interest to look for and appoint to the office of Medical Officer of Health a gentleman of good education, and one possessing a first-rate administrative talent, and giving him full power to obtain professional assistance in every department that he may think necessary.

Dr. MAPOTHER, Medical Officer of Health for Dublin, read an able paper on the same subject, in which he strove to show that all health officers should be entrusted with the performance of such public medical duties as the registration of deaths, and the giving of testimony in respect to them in all courts of justice. Their districts should be conterminous with the registration districts, which might be united in some instances, so that fit remuneration might be derived from the office. There was at present scarcely any mode of becoming efficient in state medicine; but if these offices were given by competition, means of instruction in that important subject would soon be established.

A very important discussion followed, in which Mr. Godwin, F.R.S., Dr. Trench, Liverpool, Dr. Gairdner, Glasgow, Dr. Farr, and others, took part.

Dr. FARR regretted to find that there was no Officer of Health in Birmingham, and hoped that this discussion would lead to such an appointment being made. He quoted figures to shew the number of deaths recently occurring from diarrhœa in Birmingham, and observed that if there were an Officer of Health he could inquire into the causes. It was supposed that medical men knew all about diseases and their causes, but, in the presence of their esteemed President, he could say that they knew very little of the causes of disease. Now they would like to know why in Birmingham people had been dying at a rate much higher than in London, or other large towns; and subsequently at the suggestion of Mr. Councillor Burke Smith, Dr. Farr moved the following resolution: "That in the opinion of this department well qualified medical health officers should be appointed in all the registration districts, including the great towns of the kingdom; that their functions should, among others, include an inquiry into the prevalence of disease and mortality, an investigation into the causes of ill-health and of premature death, and the frequent publication of the facts submitted by them to the authorities; that they should be at the head of the executive department, to carry out the law and the decisions of the Health Committee; that the educational qualifications, position, and tenure of office of health officers should be such as to guarantee efficient and beneficial action.

Mr. Holland seconded this resolution, and it was unanimously adopted.

On the same day, in Section B, Dr. Stallard read an able and interesting paper on the conditions under which out-door relief should be administered. Mr. North and Mr. George Baker followed with papers on the same subject. Dr. Stallard advocated a law preventing relief in aid of wages in any other form than in education and medical advice.—Mr. NORTH said that the one sole remedy for the defects of the present system of out-door medical relief lay in the establishment of the dispensary system throughout the country, and the separation of the medical treatment of the pauper population from private practice. Without this, even the best dispensary system would not be free from grave faults of administration. To secure the efficient administration of out-door relief, there needed to be a better supervision of the poor, and a more intimate acquaintance with their wants.

Mr. MANLEY, West Bromwich, thought sufficient stress had not been laid upon the encouragements of pauperism under the present system of administering relief. The system of paying fixed stipends to the surgeons led to indifference on the part of the relieving officers and the Guardians. The best remedy was to do away with the contract system of paying medical men—to pay them for every case, by which means the attention of the Guardians would be called to each case. In many cases notes were given to able-bodied men who had made no provision for themselves; and he mentioned an instance of a firm who compelled every man in their employ to put by a certain sum for medical relief, and said he hoped employers of labour would be generally induced to adopt this system.

Mr. A. FLEISCHMANN read a paper on "Poor-law Reform," to which we shall again refer on an early occasion. The first necessity in any scheme of Poor-law reform was a better system of electing guardians. In the administration of the Poor-law there were three interests to be observed, viz., of the board, of the ratepayer, and the pauper—interests seemingly antagonistic, but in reality identical; and every parish should have their guardians who should represent severally each of these interests. The clergymen of each parish should be an *ex officio* guardian—to be, in fact, the paupers' nominee. The second fundamental reform rested on pay and status of the medical man and the master of the workhouse. He drew an analogy between the management of lunatic asylums and workhouses. In the former, the "superintendent" was always a medical man; whereas the "master" of a workhouse was never a gentlemen, was always uneducated, and frequently happened to be an unsuccessful tradesmen—often a *ci-devant* tramp-master, or workhouse porter, and nine times out of ten unfit for his duty, though perhaps desirous of fulfilling it. He could see no difficulty in the way of combining the two offices. That the position of master of a workhouse would be beneath the dignity of the profession was no true objection. It could be no worse to take charge of sane, and for the most part sick paupers, than to be in authority over crazy ones. After an experience of seventeen years of the working of the Poor Law, he felt justified in urging that medical men should be appointed masters of workhouses, and that the post should be obtained only by competitive examinations in practical medicine, surgery and midwifery, and hygiene, and also in the practical administration of the Poor Law. From these might be selected a small staff of medical inspectors. The third fundamental reform needed was in the separation of sick, imbecile, and infirm children from the workhouse proper. He denied that by improving the condition of the pauper we perpetuated pauperism; and in conclusion, said, cure the sick paupers rapidly, educate the infant pauper effectually, treat the infirm pauper generously, punish the idle pauper severely, and immense benefit will surely accrue; the sting of pauperism will be withdrawn, and its venom neutralised.

In the Health Section, on Friday, great interest was excited by the question, "Can the Public Hospitals and Dispensaries of this Country be so Administered as to Conduce more to the Welfare of the Community?" Papers on this question were announced to be read by Mr. C. E. Mathews, Dr. Monckton, Dr. Dobell, Dr. Percy Leslie, and Miss Elizabeth Garrett.

Mr. C. E. MATHEWS read a paper on the "Administration of Hospitals." He set out with the remark that great institutions supported by a generous and too confiding public, under the belief that no poor man labouring under a serious disease was turned away from them, presented the monstrous anomaly that the more violent and dangerous the disease the less chance there was of the patient's reception. They were so surrounded with formalities and privileges, as to have become not public refuges for the sick poor, but private institutions for the relief of subscribers' nominees. Our hospital system was so radically bad that it tended to reduce to the smallest amount the good done by our large establishments and liberal expenditure of money. It was no part of his duty to call attention to the shameful shortcomings of the English Poor-law. But so long as the public hospitals deemed it any part of their duty to supplement those shortcomings, so long we should have no real improvement in the Poor-law medical administration. Paupers, except in cases of great urgency, should be deemed ineligible for admission into hospitals, and should be relegated to the infirmary and the parish doctor. In these days, when gratuitous medical service had excited an unusual share of public attention, it would be conceded, at least by medical men, that one of the first reforms needed in hospital administration was the rigid exclusion of all persons who were in no sense necessitous. The first step in the direction of hospital reform was that every institution which aimed at treating the largest possible number of proper and deserving cases, must appoint an officer to inquire into the social fitness of applicants for relief. This difficult duty should form no part of the labours of a medical officer; it should be performed by an authorised and salaried officer of the institution, directly responsible to the committee of management. In Paris the hospitals, which are partly endowed and partly supported by Government, were bound to receive all the sick poor of the department; and everyone who was poor enough and sick enough to require admission was sent by a public officer into any one of the hospitals in which a bed happened to be vacant. The privileged system was completely and utterly bad in every conceivable aspect: 1. It contravened the true principles of christian benevolence. It was based upon the principle, that as a man subscribes to an hospital, so he was privileged to send his relatives, or friends, or dependants into the wards; and the institution where this system was carried on arrogated [to itself the dignity of a public charity. 2. It could not be worked except upon the compound method of also admitting accidents and urgent medical cases free—a complex system which could be proved to demonstration to be the cause of never-ending financial embarrassment, constant changes in subscribers' privileges, already adjusted on data which have no existence, ludicrous administrative difficulty, and confusion. 3. It prevented the admission of the true hospital population, and left the selection of patients to a class of persons who are wholly incompetent to discharge that duty. The subscribers knew nothing of the number of beds vacant, of the possible injury from delay in the treatment, or the severity of the accident, or the contagiousness of the disease, or the comparative condition of applicants in a medical sense equal; and so the boldest beggar obtained the biggest loaf, the most deserving case was left out in the cold, and the "charity" got filled up with chronic cases, malingerers, and hospital birds. These were only some of the objections to the obnoxious system of privilege. There were many more. The cumbrous business of admission and discharge; the arrangement by which a patient who was ill on Monday could not obtain admission till Friday, because an hospital only received on that day, and by which a patient cured on Saturday must remain till the following Thursday, because the hospital only discharged on that day; the fact that medical officers disliked discharging privileged patients, though cured or incurable, lest the subscriber should think he had not full value for his money till his ticket had run out; the practical impossibility of suddenly closing a wing or a ward; the curious arrangement by which, irrespective of the wants of a district, an hospital was full, while the subscribers had a good stock of notes of recommendation, and half empty when the stock had become low; the weary journeys from subscriber to subscriber in search of tickets of admission, and the consequent aggravation of disease from want of speedy treatment. These were some of the inevitable results of a system which could not escape the condemnation of just and thoughtful men. Mr. Mathews went on to discuss the mode of election of medical officers, and the disadvantage and costs of canvassing large bodies of governors. He pointed out the excessive number of out-patients, as compared with the smallness of the staff, and recommended that general practitioners should be appointed to take part in the out-patient practice. He referred to the propriety of remunerating medical officers, where they were not indirectly well paid for their hospital work by pupils' fees and increased reputation.

(*To be concluded.*)

ROYAL COLLEGE OF SURGEONS.

AT a special meeting of the Council of this institution on Thursday last, Mr. George Busk, F.R.S., was elected a member of the Court of Examiners, in the vacancy occasioned by the resignation of Mr. John Flint South, who has held that appointment nearly twenty years, having, according to the Calendar, been elected in 1849; and Mr. John Hilton, F.R.S., was also elected a member of the Dental Board, in the vacancy caused by Mr. South. Mr. Hancock's amendment on Mr. Spencer Smith's original motion for the publication of the proceedings of the meetings of Council was carried without opposition; it was seconded by Mr. Spencer Smith. At the same meeting of the Council, Messrs. William Harding, of Percy Street, Bedford Square, and William McCheane, of Shaw Street, Everton, Liverpool, Surgeon to the Liverpool Lock Hospital, having been elected Fellows at a previous meeting of the Council, were admitted as such, their diplomas of membership bearing date respectively February 1st, 1833, and May 19th, 1843. The Court of Examiners has just given notice that, at the forthcoming examinations, commencing on the 7th, 14th, 21st, and 28th proximo, all candidates at the pass-examinations for the diplomas of fellowship and membership will be required to undergo an additional examination in Medicine, unless already possessing a degree or licence from a recognised institution.

THE LAYING OF THE FOUNDATION-STONE OF THE NEW UNIVERSITY BUILDINGS, GLASGOW.

AS we intimated shortly last week, His Royal Highness the Prince of Wales, accompanied by the Princess of Wales, visited Glasgow on Thursday, October 8th, and laid the foundation-stone of the new University Buildings. We this week give a few points of interest connected with the old University, the origin of the New Buildings, and details of the proceedings on Thursday.

The old University was founded so far back as 1451 by Bishop Turnbull, under a Bull of ratification procured by him from Pope Nicholas V; but only a small portion of the buildings, as they stand now, date earlier than 1632. The cost of their construction was defrayed chiefly by funds derived from public subscription, the celebrated Zachary Boyd being a specially munificent benefactor. Several additions were made at a later period, at various intervals; and during this century the Hunterian Museum was built, with an addition to contain the anatomical preparations, out of money bequeathed to the College, along with his collection, by William Hunter. Several other additions of importance were also made to the College during the present century. The old University having been sold to the Union Railway Company, the authorities purchased the lands of Gilmore Hill and surrounding ground, in the west end of the town, as a site for the new University. They had at their disposal about £139,000, including £21,400 granted by the Government, provided the authorities raised £24,000 by public subscription, for the erection of a hospital in connection with the University, an object in which they have not been disappointed. The University Buildings will cost far more than was at first anticipated, and subscriptions are still being solicited. In the meantime, the works have been going on, the first stone having been laid eighteen months ago. The architect is Mr. G. Gilbert Scott, of London. The building will be of the collegiate style of the early part of the fourteenth century; and, when completed, will form a huge oblong rectangular pile, and will occupy a space, apart from the Professors' houses, of nearly four acres. The great tower, in which will be placed the clock, will rise to the height of nearly three hundred feet. We regret that space prevents our going into any further detail on the subject; but we may mention, that the medical department, as all others, will be of a most complete character. The chemical laboratories especially will be very extensive and complete. The building has progressed rapidly, the workmen having already roofed in part of the east front; the other fronts are less advanced. It is expected that the buildings will not be completed for fully eighteen months.

About a quarter-past twelve o'clock on Thursday, October 8th, the special train from Edinburgh, containing their Royal Highnesses and suite, reached Glasgow. Their Royal Highnesses were accompanied by Prince John of Denmark, Lieutenant-General Sir W. Knollys, the Hon. Mrs. Coke, and Major Teasdale. Among those on the platform, in readiness to receive their Royal Highnesses, were the Lord Provost of Glasgow and Mrs. Lumsden, the Lord Justice-General (Lord Rector of the University), Principal Barclay, and the Professors of the University. At the station, a procession was formed which proceeded to the City Hall, where His Royal Highness was constituted a freeman of the City of Glasgow, and the documents containing the address of the corporation, deposited in golden caskets, handed to His Royal Highness. The procession was then reformed, and proceeded to Gilmore Hill, the site of the New Buildings. The preparations for spectators were of the most complete character. A huge wooden platform had been erected round the stone, affording accommodation for 18,000 spectators. Every means were taken to give the public every chance of obtaining a view of the ceremonial, and with most gratifying success. On arriving, about two o'clock, their Royal Highnesses were received by the authorities and professors of the University, when the degree of LL.D. was conferred, in one of the rooms in Gilmore Hill House which had been fitted up for the occasion, upon the Prince of Wales and Prince John of Denmark, both having to undergo the usual ceremony of "capping". They were then invested with the hood, and, in the usual form, signed the book of degrees. This being completed, their Royal Highnesses proceeded to the spot where the foundation-stone was to be laid, and which will form part of the doorway of the Great Hall, when they received a most enthusiastic reception from the spectators. The Principal, having then read an address to His Royal Highness, Dr. Caird offered up prayer, and the choir sung two verses of the Hundredth Psalm, the Lord Rector formally requested the Prince to lay the foundation-stone, and the Principal, as Vice-Chancellor, presented the trowel to His Royal Highness. Professor Allen Thomson acquainted the Prince with the contents of the jar. The Prince performed his part of the work with hearty goodwill; and the Princess laid the companion stone on the opposite side of the entrance. The choir then sang the Hallelujah Chorus, which concluded the ceremony. Their Royal Highnesses, after lunching with the Lord Provost, left for Edinburgh. In the evening, a dinner took place in the Corporation Galleries, to celebrate the visit of their Royal Highnesses.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

The Committee of Council will meet at the Queen's Hotel, Birmingham, on Wednesday, the 28th of October, 1868, at 1 o'clock precisely.

T. Watkin Williams, F.R.C.S., *General Secretary.*
13, Newhall Street, Birmingham, October 6th, 1868.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

The next meeting of this Branch will be held at the White Hart Inn, Reigate, on Thursday, October 22nd, at 4 P.M. Dr. Holman, of Reigate, in the Chair.

Papers, etc., will be read by Dr. Braxton Hicks, Mr. C. R. Thompson (Westerham), and Dr. Holman.

Dinner will be provided at 6 P.M.

Henry T. Lanchester, M.D., *Hon. Secretary.*
Croydon, October 6th, 1868.

SHROPSHIRE ETHICAL BRANCH.

The annual general meeting of the above Branch will be held at the Lion Hotel, Shrewsbury, on Tuesday, October 27th, at 1.30 P.M.; W. J. Clement, Esq., M.P., President, in the Chair.

Dinner will be served punctually at 4 P.M., for the convenience of the country members.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate their intention, at their earliest convenience, to

Jukes Styrap,
Edwyn Andrew, *Hon. Secs.*

SHROPSHIRE SCIENTIFIC BRANCH.

The annual meeting of the above Branch will be held in the Natural History and Antiquarian Society's Museum, Shrewsbury, on Wednesday, October 28th, at 2.30 P.M.—President for 1867-8, William Newman, M.D., Stamford; President-elect for 1868-9, Samuel Wood, F.S.A., Shrewsbury.

Gentlemen intending to read papers or cases, are requested to communicate with the Honorary Secretary.

The dinner will take place at 5 o'clock. Members can introduce friends.

Samuel Wood, F.R.C.S., *Hon. Sec.*

BATH AND BRISTOL BRANCH.

The first meeting of the session will be held at the Royal Hotel, Bristol, on Thursday evening, October 29th, at 7 P.M.; R. N. Stone, Esq., President.

The Report of the Special Committee on Medical Courts of Appeal will be read; also papers by J. G. Swayne, M.D., C. Steele, Esq., and Joseph Hinton, Esq.

Charles Steele,
R. S. Fowler, *Honorary Secretaries.*
12, Meridian Place, Clifton, October 1868.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

Friday, October 9th, 1868.

James Paget, Esq., Vice-President, in the Chair.

Dr. W. Snow was elected a member of the Society.

The Chairman having mentioned that all members joining the Society during the present Session would receive copies of the first volume of *Transactions*—

Mr. Paget proceeded to say:—I regret, as you do, the absence of our honoured President. No one who heard or read the address with which, in few and weighty words, he inaugurated our Society, can fail to wish that we might again to-night have been guided and encouraged by him. In his absence, I invite you, at the wish of the Council, to commence the work of another Session; and, in doing so, I think I may justly congratulate you on the success of the first year of our Society's existence. Already about 200 members are enrolled, and among them are (I think) nearly all the best workers in our best places for clinical study. What work was done in the last brief Session is partly shown in the volume of *Transactions*, for the punctual publication of which we are indebted, as we are for much more of the useful and regular work of the Society, to our excellent secretaries. But the *Transactions* only partly show the work done; they do not tell the knowledge elicited in discussions, or the activity of further inquiry which the discussions have provoked. They who look through our *Transactions* may think that the advice of our President was in one respect disregarded. He spoke very forcibly of the need of acquiring more accurate knowledge in the therapeutic part of our profession, and told us of his hope that the Clinical Society would be of great value in the pursuit of this branch of knowledge. Yet among the contributions of last Session there is not one that deals expressly with the value or means of using any single medicine. In reference to this matter, the Council have, I think, judged wisely in appointing committees for investigating the use of certain medicinal substances; and five committees are engaged in their several works as actively as may consist with the caution necessary in such researches. We may hope, I think, for great good from their combined inquiries. For, surely if there be one part of our science in which more than in all the rest our own beliefs need to be tested by the scrutiny of others, it is in respect of our belief in the use of medicines. The motives to believe ourselves possessed of more means of curing diseases than we really have are so many and so various, and some of them are so good, that we can hardly resist them. The several committees are desirous of receiving contributions from all members of the Society; and these contributions may be of any one of three different kinds, either of facts respecting the successful use of the medicines under study, or of facts relating to their failures; or of such as tell of the course of the diseases for which the several medicines are given when they are left alone. I venture to think that it is chiefly through want of knowledge on the last two of these three heads of inquiry that our therapeutic science is so uncertain. We are too apt to assume that every beneficial change following the use of medicine is caused by it, too ready to regard the seeming successes of treatment as being evident beyond dispute, and to put aside or explain away the failures as facts, the successes as things that may be explained away. And yet I suspect the history of medicine would tell that in the case of most supposed and doubted remedies, the facts have been on the side of the failures, the fallacies on that of the seeming successes.

With these few words I invite you to the beginning of your new year's work. We have every motive to induce us to prosecute it vigorously. Our best feelings must be stirred when we see the masses of human misery that can be alleviated by no human power but by that which may be gained by the exercise and increase of our knowledge. Our highest intellectual aspirations may be attracted by the magnitude and variety of the problems that are within our study; by the diffi culties which, vast and deep as they are, will yet yield to steadfast work as surely as the rock to the ever-running stream. Our fair ambition for personal success may be excited by the opportunities for scientific contest which our discussions will offer, and which can never be too earnest, so long as they are consistent with professional honour and mutual goodwill, and the unswerving love of truth.

Dr. PEACOCK communicated an analytical summary of 146 cases of acute and subacute rheumatism. Of these cases, there were only 84 free from serious cardiac complication. Pericarditis was shown to be more common in cases of slighter rheumatism, and endocarditis in cases of greater severity. Pericarditis with endocarditis occurred in the course of the attack in 11 per cent. of the cases; endocarditis alone in 25.3 per cent. In by far the greater number of these cases of recent complication, the heart-affection already existed at the time the patient was admitted. In the cases in which the rheumatism was of short duration at the time of admission, or arose during the course of treatment, the evidences of disease generally wholly disappeared before the patient's discharge.

Dr. SIBSON desired to know in respect of those cases in which Dr. Peacock considered that endocarditis had supervened during the attack of acute rheumatism, what method had been used to ascertain that no valvular disease had existed previously?

Dr. PEACOCK was well aware of the difficulty to which Dr. Sibson had referred, and was ready to admit that recent endocarditis could not be distinguished from old disease by the physical signs. He knew of no method by which the conclusion could be arrived at in any given case that the heart complication was recent, excepting that of carefully studying its previous history and progress. He had found the difficulty of discriminating between anæmic murmurs and those of organic origin still more serious than that to which Dr. Sibson had adverted.

Dr. SOUTHEY asked whether Dr. Peacock had observed differences between different years or periods in the liability of patients suffering from acute rheumatism to disease of the heart? He observed that, during the last two or three years, acute rheumatism was less frequently complicated with endocarditis than formerly, and that the complication was much more frequent in cases of long duration (*e. g.*, six weeks) than in those of rapid course, in which pericarditis was more common.

Dr. WILLIAMS stated, that his attention had, at a very early period, been directed to the question under consideration. He thought that recent valvular disease might be distinguished from old by the variable shifting character of the murmurs. As regards the percentage of cases in which it occurred much would depend on the mode of investigation, for the physical signs are so transient that, unless observations are made daily throughout the whole progress of the case, they are certain to be overlooked.

Mr. HULKE read an account of a Case of Ichthyosis Glossæ where, after nearly twenty years, epithelioma supervened. After considering various points in the history of the case, he favoured the idea that the two diseases occurred independently. The final supervention of epithelioma in the only two cases of ichthyosis glossæ which he had met with, and the anatomical parallelism presented by the very active multiplication of cells of an epithelial type in both diseases were not, however, without significance.

Mr. PAGET had examined a similar case some years ago, which ended in epithelial cancer, one of the first cases in which epithelial cancer was described in this country. He doubted if there was a greater tendency in this ichthyosis to run into cancer than with other continued irritations, such as that caused by syphilitic disease of the tongue. Cancer, without doubt, was provoked by the long abiding influence of chronic irritation.

Dr. ANDREW CLARK had met with cases in which glass-blowers became subject to the formation of opaque leathery sort of membrane, not warty, on the surface of the tongue. In two cases after the use of irritants cancer supervened. It seemed as though the continued irritation exhausted the local power of development, leaving the growing power to run riot.

Dr. DOUGLAS POWELL read a case of Phthisis and Contracted Lung, in which the signs and symptoms closely resembled those of fibroid phthisis as described by Dr. A. Clark, notwithstanding that the history and *post mortem* results shewed it to be a case of chronic tubercular disease, Dr. Powell postponed his remarks on treatment until two other cases (for the examination of which a committee was requested) had been considered.

Dr. FOX, in commenting on Dr. Powell's case, observed that in chronic pneumonia, the thickening of the alveolar walls, which results from the inhalation of irritating substances, and especially tubercle, frequently terminates in fibroid change. With reference to tubercle, he remarked that certain cases had been lately described as "fibroid phthisis", in which distinct granulations were found in the lung. As the result of his own personal observations, he imagined that these granulations were tubercle, and that the grounds for regarding them otherwise were purely arbitrary. The cases in question are so rare that, in the absence of more distinct evidence of their independence of pneumonia or tubercle, we are not justified in erecting them into a separate species. Admitting that there is a certain antecedent improbability that tubercle should attack one lung only, the cases may be fully explained on the hypothesis of a pneumonia, to which many facts in their history point.

A committee, consisting of Dr. Pollock and Dr. Andrew Clark, was appointed to investigate Dr. Powell's cases.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

POOR LAW MEDICAL OFFICERS' ASSOCIATION.

THE quarterly meeting of this large and increasing Association will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, on Tuesday, October 27th, at 5 P.M. After the meeting the Members, Honorary Members, and friends of the Association will dine together.

OBITUARY.

W. BIRD HERAPATH, M.D., F.R.S., BRISTOL.

WE regret to announce the death of Dr. Herapath. His death occurred a few days ago, at the early age of 48, from disease of the liver. Dr. Herapath was widely known in the West of England as an accomplished toxicologist, and his death will be deeply felt. He delivered an address to the British Medical Association, at the annual meeting in Bristol in the year 1863, "On Chemistry in its Relations to Medicine and the Collateral Sciences", which will be well remembered by our readers. He has been a frequent and able contributor to our pages. As a chemist, he is especially known as the author of papers on the Optical and Chemical Characters of Sulphate of Iodo-quinine, and of Iodo-cinchonine. At the meeting of the British Association in Bath (1864), he read a paper "On the Presence of Indigo in Purulent Discharges"; and he has communicated a considerable number of papers of interest in chemical and toxicological subjects to different medical and chemical journals.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 8th, 1868.

Foss, Robert William, Stockton-on-Tees
Fox, Richard Dacre, Beccles, Suffolk
Haddelsey, Charles Turner, Whitechapel Road
Hett, Geoffrey, Brigg, Lincolnshire
Higham, Joseph, Manchester
Orton, John, jun., Foleshill
Smith, William Woodriff, Sittingbourne
Wharton, James Fraser, Durham

At the same Court, the following passed the first examination.

Dawson, Frederick W. E., Westminster Hospital

ROYAL COLLEGE OF SURGEONS: NEW FELLOWS.—At a meeting of the Council of the Royal College of Surgeons, on Thursday last, the following members of the College, having been elected Fellows at previous meetings of the council, were admitted as such, viz., Messrs. William Harding, of Percy-street, Bedford-square, diploma of membership dated February 1, 1833; and William McCheane, of Shaw-street, Everton, Liverpool, Surgeon to the Liverpool Lock Hospital, May 19, 1843.

MUSEUM OF THE EDINBURGH BOTANIC GARDEN.—Dr. Thomas Anderson, Director of the Botanical Garden, Calcutta, has, under orders from the Secretary of State for India, sent to the Museum of the Botanic Garden of Edinburgh a large series of named specimens of timber cut from trees blown down in the Botanical Garden, Calcutta, in the cyclone of October, 1864.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Oct. 7th to 13th (both inclusive).

Taken at Kew, by Dr. TREUTLER, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	32.121
Highest reading of do. (corrected and reduced), on 8th, 10 A.M.	30.226
Lowest ditto Ditto on 9th, 2 P.M.	30.012
Range of pressure during the week	00.214
Mean temperature of air in shade	52.9
Mean temperature of evaporation	49.8
Mean temperature of dew-point	46.8
Mean degree of humidity (saturation=100)	80.
Mean maximum temperature of the week	61.3
Mean minimum temperature of the week	41.9
Calculated mean temperature of the week	51.6
Maximum temperature of air in shade, on 12th	64.9
Minimum temperature (protected), on 11th	35.4
Minimum temperature (exposed on grass), on 8th	31.6
Range of temperature during week	33.3
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 8th	114.0
Lowest ditto ditto on 13th	102.4
Mean amount of clouds (0—10)	3.9
Total rainfall (which fell on the 7th)	0.40 inch
Mean amount of ozone (0—10)	1.4

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	0	0	1	0	3	0	1	2	2.0
2 P.M.	0	0	2	0	0	2	1	2	0	2.7
10 P.M.	0	0	0	0	0	0	0	0	7	0.0

Mean force of wind (0—12) 1.6

The weather of the week has been on the whole fine. Atmospheric pressure has been higher than during the previous week, and its range considerably less. Temperature has decreased slightly, owing chiefly to the cool nights, and its range has been somewhat greater than before. Winds have been chiefly south-westerly, and extremely light. The evenings were uniformly calm. Hoar frost formed on the grass for the first time, on the night from the 7th to 8th. Dense and very damp fogs prevailed on the mornings of the 11th, 12th, and 13th, disappearing about noon. The general health continues satisfactory.

MEDICAL VACANCIES.

THE following vacancies are declared:—

ASKERN BATH CHARITY, Doncaster—Physician.
BIRMINGHAM GENERAL DISPENSARY—Two Resident Surgeons.
BRISTOL CHARITY TRUSTEES SCHOOLS—Physician.
BRITISH LYING-IN HOSPITAL, Endell Street—Three Physicians.
CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square—Physician.
CHELTENHAM COLLEGE—Surgeon.
COVENTRY AND WARWICKSHIRE HOSPITAL—House-Surgeon.
DERBYSHIRE GENERAL INFIRMARY, Derby—House-Surgeon.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, Margaret Street, Cavendish Square—Visiting Physician.
ISLINGTON DISPENSARY—Physician.
KENT COUNTY OPHTHALMIC HOSPITAL—House-Surgeon.
KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY—Resident Medical Officer.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
QUEEN ELIZABETH'S HOSPITAL, Bristol—Physician.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician.
ROYAL INFIRMARY, GLASGOW—Two Assistant-Physicians, a Surgeon, and Two Assistant-Surgeons, to the Dispensary Department.
ROYAL SOUTH LONDON DISPENSARY, St. George's Cross—District Surgeon.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Surgeon.
SOUTH STAFFORDSHIRE INFIRMARY, Wolverhampton—Physician.
STRANORLAR UNION, co. Donegal—Medical Officer for the Killygordon Dispensary District.
SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.
TRINITY COLLEGE, Dublin—Professor of Botany.
UNIVERSITY OF GLASGOW—Waltonian Lecturer on the Eye.
YORKSHIRE INSTITUTE FOR THE DEAF AND DUMB—Consulting Physician.

MEDICAL APPOINTMENTS.

BELGRAVE, Thomas B., M.D. Edin., has been appointed Lecturer on Medicine at St. Joseph's Missionary College, Mill Hill, Hendon.

PAYNE, J. F., M.B. Oxon., M.R.C.P., has been appointed Physician to the St. George's Hanover Square Dispensary, Mount Street.

*VINCENT, Osman, M.R.C.S., has been appointed Surgeon to the St. Marylebone General Dispensary.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.—Royal Free, 9 A.M.
WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.
SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Richardson, "On Blood-letting as a Point of Scientific Practice."

TUESDAY.—Pathological Society of London.

FRIDAY.—Clinical Society. Dr. Julius Pollock, "Case of so-called Fibroid Phthisis;" Mr. Maunder, "Case of Ligature of the Femoral Artery;" Dr. Bristowe, "Treatment of Ascites by Tonics."

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

A STUDENT.—Our advertising columns will give you the desired information. Mr. Holden has just brought out a third edition of his work.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Newcastle Daily Chronicle, Oct. 9th; The Birmingham Daily Post, Oct. 3rd, 7th, and 8th; Saunders's Dublin News-Letter and Daily Advertiser, Oct. 8th; The Freeman's Journal, Dublin, Oct. 10th; The Wiltshire County Mirror, Oct. 14th; The Brighton Times, Sept. 19th, Oct. 3rd and 10th; and The Indian Medical Gazette, Sept. 1st.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Wilde, Dublin; Mr. Hickman, Newport; Dr. Collis, Dublin; Mr. T. Watkin Williams, Birmingham; The Secretary of the Faculty of Physicians and Surgeons, Glasgow; Dr. Kidd, Dublin; The Metropolitan Asylums Committee for Leavesden Asylum; Dr. Wilson Fox, London; Dr. Kelburne King, Hull; M.D. Aberdeen; Mr. J. De Courcy Young, Bristol; Dr. Grimshaw, Dublin; Lex, London; The Honorary Secretaries of the Pathological Society of London; The Registrar of the Medical Society of London; The Honorary Secretaries of the Royal Medical and Chirurgical Society; Messrs. Calvert and Co., Bradford; Mr. H. Appleton, Darlington Dr. Graily Hewitt, London; Dr. Sedgwick, London; Dr. J. Braxton Hicks, London; Dr. Page, Carlisle; Mr. Osman Vincent, London; Mr. A. R. Verity, Talywain; Mr. S. J. Bayfield, London; Messrs. Black, Edinburgh; Dr. Fisher, Bristol; Dr. J. F. Payne, London; Dr. Lory Marsh, Nottingham; Dr. Mapother, Dublin; Dr. Laycock, Edinburgh; Dr. Falconer, Bath; Mr. Grewcock, Nottingham; and Mr. Wanklyn, London.

LETTERS, ETC. (with enclosures) from:—

Dr. Rumsey, Cheltenham; Dr. Pratt, Paris; Dr. Crotty, Dublin; Mr. J. Hyde Bell, Louth; Mr. Searle, Dudley; Mr. Bayliffe, Chippenham; Dr. Reid, Newbiggin-by-Sea; Dr. Duncan, Glasgow; Mr. J. Higginbottom, Nottingham; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; The Registrar-General of England; The Registrar-General of Ireland; Dr. John Murray, London; Dr. Treutler, Kew; Mr. J. A. Feegan, Manchester; Mr. Holmes Coote, London; Mr. John Manley, West Bromwich; Mr. Berkeley Hill, London; Mr. Birkett, London; Dr. Stanley Haynes, Laverstock House Asylum, near Salisbury; Messrs. Harvey and Reynolds, Leeds; Dr. Joseph Stephens, Brighton; Mr. A. Fleischmann, Cheltenham; Mr. T. Pope, Cleobury Mortimer; Dr. Andrew Wood, Edinburgh; Dr. Heslop, Birmingham; Dr. B. W. Foster, Birmingham; Mr. C. Jeaffreson, London; Dr. Thomas Skinner, Liverpool; Dr. Alfred Hill, Birmingham; Dr. H. Barnes, Carlisle; Mr. James R. Lane, London; Messrs. Blake, Sandford, and Blake, London; Mr. Axford, Bridgwater; Mr. Couper, London; Dr. C. Drysdale, London; The Honorary Secretaries of the Bath and Bristol Branch; Dr. Bristowe, London; Dr. H. Tuke; Mr. G. S. Street; and Messrs. Robertson and Scott.

REMARKS

ON

STAMMERING WITH OTHER ORGANS THAN THOSE OF SPEECH.

By JAMES PAGET, F.R.S., D.C.L.Oxon.

THE characters of stammering in speech are so well known, and may be so often studied, that we may take this form of disease as the type of a class including similar affections of other organs than those of speech, and may apply to all the same generic name of "stammering".

Stammering, in whatever organs, appears due to a want of concert between certain muscles that must contract for the expulsion of something, and others that must at the same time relax to permit the thing to be expelled. Ordinary stammerers cannot at the same time regulate the contraction of the muscles of expiration for the proper expulsion of air, and the relaxation of those of the glottis, or (in different cases) of the tongue or lips, for permitting the expulsion of the air while it is being made vocal and articulate. Numerous as are the varieties and modes of speech-stammering, this discord of muscles is in them all. Its dependence on the nervous system and the mind is in fact plain enough, in theory very difficult. Perhaps it may help the study of speech-stammering, if similar disorders be watched in other parts of the body; but at present I want only to point out the facts.

Stammering urinary organs are not rare; and they may be known by observing, sometimes in the same person, the exact parallelism between the difficulty of expelling urine and that of expelling the air in the ordinary speech-stammering. The patient can often pass his urine without any trouble, especially at customary times and places; and, when he does so, the stream is full and strong, and he has "nothing the matter with him". But, at other times, he suffers all the distress that he might have with a very bad urethral stricture. He cannot pass a drop of urine; or, after a few drops, there comes a painful check, and the more he strains, the less he passes; and then complete retention may ensue, and overfilling of the bladder. In these characters, the case may closely resemble one of the ordinary instances of so-called congestive stricture, in which rapid swelling of some part of the mucous membrane narrows or closes the part of the canal which is least capable of distension. But the circumstances in which the difficulty arises are, in the two cases, very different. The stammering with the bladder occurs in just the same conditions as the stammering speech. There are few stammerers in speech so bad but that they can talk or read fluently when they are alone or with those whom they are most familiar with, or when they are entirely thoughtless as to their manner of speaking. Their worst times are when with strangers, or with persons or in places that are associated in their minds with stammering. It is just so with the bladder and urethra. One patient told me that, although he could usually pass urine well, yet there was one person with whom nothing could induce him to walk, because once, when he was with her, he wanted to pass urine, retired, and failed. His experience of the effects of association of thoughts made him sure that, if he were again in the same circumstances, the same distress would come on him more intensely. Another, a clergyman, always passed a catheter before going into his pulpit. He had often had nervous troubles with his bladder; and once or more, having felt a horrid need of passing urine while he was preaching, he found himself, at the end of his sermon, unable to pass any. He said he felt sure that, if he were to go into his pulpit without the assurance of an empty bladder which his catheter (a No. 12, passed easily) gave him, he should be pressed with the desire to pass urine, and then should have retention. As a speech-stammerer might be unable to utter a word, so would he be unable to pass a drop of urine. Again, another patient has described himself as driven to all kinds of devices to bring about the association of ideas or of actions with which he best succeeds in emptying his bladder. He must walk up and down his room, and stand or sit in some customary singular posture, and then be very careful not to direct his mind either too much or too little to what he has to do, and then to let the urine run as inconsiderately as he can.

I might add many more notes of the seeming caprices of the stammering bladder and urethra; but it may suffice to say that nearly all the phenomena of stammering speech find in them their parallel. In both alike are observed the strong influence of habit and of association of ideas; the effects of transient changes in the vigour of the nervous system; the need of a justly and yet almost unconsciously measured exercise of the will, that it should be neither more nor less than enough; and the influence of distraction of mind. And equally in both classes of patients may be noticed the coincident general sensitiveness of the nervous system, and the family relations with persons who suffer various other forms of nervous disorder.

One or two differences may, however, be noticed between the urinary and the speaking organs, in their respective stammering. The former cause more pain. The bladder, unable to expel its contents, becomes for a time the seat of the feelings of distress and tightness, and urgent need of emptying, which are felt in more simply mechanical retention of urine; and it becomes more sensitive and more irritable, but probably rather through the constant and earnest attention of the mind, than through any change in its own condition. In cases of long-continued urinary stammering, some of which began in very early life, and some of which I have known for many years, I have seen no indication of any supervening organic disease. After years of trouble, nothing appears wrong but the manner of action of the parts. But though, so far as I have yet seen, their stammering does not produce structural disease of the urinary organs, yet, in many instances of their structural diseases, these organs become very "nervous"—that is, very sensitive and disorderly in their nervous systems; and, in this state, they imitate some of the faults of stammering. Thus in stricture, especially from congestion of the mucous membrane of the urethra, patients feel that a great part of the difficulty of passing urine is due to their inability to regulate and harmonise the urinary muscular acts. As a man said to me, "If I could stop the straining, I could do it; but, as soon as ever I strain, the spasm comes on." By this he meant that he could not duly moderate the action of the expelling muscles; and that, as soon as they began to act too vehemently, those that close the urethra would act in spite of him. Just so a stammerer sticks fast in speech; and the faster, the more he strains. And, in similar likeness to stammerers, we may see that most patients with long standing obstruction from stricture or diseased prostate, or whatsoever else, resort to habits or postures, or mere tricks, by which they may gain the advantage of associations of ideas for aiding the successful use of their muscular power.

The treatment of stammering urinary organs has difficulties similar and equal to those of treating stammering speech. The patient must try to educate himself to a calm control of his muscular power; and, on any occasion of failure, must get what help he can from such mental tricks as I have referred to. He should evade all risks of difficulty, and should avoid all the conditions in which he has suffered his worst failures. He should do anything rather than fail to pass his urine. He should not always yield to the first impulse to pass it, but should try to regulate the actions of the bladder to certain fixed hours of the day. And especially he should learn to use a catheter, not only that he may thus relieve himself in case of absolute need, but that he may be free from the enervating dread of helpless retention. He should keep his whole economy, and chiefly the secretion of urine, in the healthiest state he can; for, like all other stammering, or in even a greater degree than any other, that of the urinary organs is influenced by the condition of the general health.

The characters of stammering with the organs of deglutition may generally be recognised by their likeness to those of urinary stammering. They have to be distinguished not only from the mechanical obstructions of the upper part of the œsophagus, whether from stricture, pouch, or other hindrance, but also from the difficulties of swallowing that depend upon paralysis, whether hysterical (so called) or senile, or from progressive muscular atrophy. It is not necessary that I should try to point out the diagnosis of stammering in deglutition from each of these diseases. The common ground of diagnosis from them all is in the predominant influence of mental association in the stammering, and its slight, if any, influence in any of the other difficulties. Sometimes swallowing is easy and unhindered; at others very difficult, especially in company, or when the trouble is particularly inconvenient, or the mind too much set on it. Briefly, nearly all that has been said of stammering with the urinary muscles might be repeated, *mutatis mutandis*, of that with the muscles of deglutition; and the principles of treatment must be in both the same.

I have not seen cases enough to be able to discriminate between the stammering and the spasmodic stricture of the œsophagus. I think they are different affections, but I need more opportunities of studying them. If any one will investigate them, much help may be gained from the paper by the late Dr. Brinton in the *Lancet* for Jan. 6th, 1866, and from the remarkable case of fatal spasmodic (or stammering?) obstruction of the œsophagus recorded by Mr. Henry Power.

I believe that a disorder essentially similar to stammering may be traced among the cases of difficulty of defæcation not due to organic disease; but it requires more study that I have yet been able to devote to it.

THERMOMETRIC OBSERVATIONS ON EPIDEMIC CEREBRO-SPINAL MENINGITIS.

By THOMAS WRIGLEY GRIMSHAW, M.D. Dub.,
Physician to Cork Street Fever Hospital, Dublin; Lecturer on Materia Medica in Dr. Steevens's Hospital; etc.

THE attention of the profession being at present very much directed to the disease now known under the name of epidemic cerebro-spinal meningitis, and as during the past two years I have had extensive opportunities of making thermometric observations on patients labouring under this affection, I believe I am justified in submitting some of the results for the perusal of the readers of the BRITISH MEDICAL JOURNAL, and trust that they will be found of interest. The observations detailed in this paper are selected from a large number; each case being chosen either from its being typical of its class, or as possessing some unusual peculiarity. Considerable difficulty has always been experienced in treating of the disease now under consideration, arising chiefly from the great divergence in character between the different cases. In order, therefore, to make any observations intelligible, it is necessary, in the first place, to classify the cases. There is no disease, as far as I am aware, where the absence of a type is so well marked; therefore, we cannot adopt the usual division into cases according with, and those varying from, a typical form. The classification which appears to me most useful for the present purpose, is founded upon the duration and severity of the cases, as follows.

CLASS I.—Cases of very mild form, terminating in recovery; the duration being from one to three weeks (usually about a fortnight).

CLASS 2.—Cases of a very severe form setting in suddenly; the symptoms very violent and well marked; terminating in death in from a few hours to three or four days. These cases are usually accompanied by purpuric spots and blotches; and hence the name of Black Death applied to this affection.

CLASS 3.—Cases of medium severity; the symptoms well marked (but not necessarily very severe), usually yielding to treatment, and terminating in recovery in from two to six weeks.

CLASS 4.—Cases which may set in either in a mild or severe form, run a long course (becoming chronic) of from six weeks to six months; the result being generally determined by the previous constitution of the patient.

In accordance with the foregoing classification, I shall give examples of the ranges of temperature as they occurred in a few cases selected from each class.

Of Class I, the following three cases may be taken as examples. The first two are instances of slight uncomplicated cerebro-spinal meningitis; the third, a case of that disease combined with typhus fever—a combination by no means uncommon during the epidemic.

CASE I.—Mary C., aged 10 years; four days ill before admission. Admitted into Cork Street Hospital on February 12th, 1868, complaining of pain in the head, pain and stiffness of neck, commenced by vomiting, shivering, and pain in head.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
5	28	109	98.5
6	Natural	96	98
7	Natural	72	97·5
8	Natural	80	97·5

The patient was discharged perfectly well on the nineteenth day.

The treatment in this case consisted of iodide of potassium internally, with leeches and blister to the nape of the neck.

CASE II.—Richard K., aged 22 years; six days ill before admission into Cork Street Hospital on Feb. 13th, 1868. Symptoms the same as last case; commenced in the same way. Treatment almost the same as last. Was convalescent on the twelfth day.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
8	22	72	99
9	24	60	97
10	Natural	72	97
11	Natural	—	98

CASE III.—Patrick R., aged 11 years; three days ill before his admission into Cork Street Fever Hospital on July 12th, 1867. Father in hospital affected with typhus, but without any symptoms of meningitis. All the symptoms of meningeal inflammation well marked, together with many symptoms of typhus; the latter were fully developed in a few days.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
3	40	120	103.5
4	30	96	103
5	30	110	103
6	24	108	100.5
7	30	110	101
8	30	120	104
9	37	120	102.5
10	24	84	101.3
11	30	86	99
12	28	98	98
13	28	86	97
14	18	70	99
15	18	84	98

The meningitic symptoms quickly improved under the use of iodide of potassium and belladonna internally, with leeches to the temples and behind the ears and blister to the nape of the neck. On the seventh day, the meningitis was much better, and seemed nearly well on the eighth day; but returned again on the ninth; again yielding to similar treatment. The boy was convalescent on the fourteenth day. There was diarrhœa on the fourth and fifth days.

The range of temperature in this case resembles that usually found in typhus (the maximum, 104 deg., being attained on the eighth day). The fall on the sixth day seems to have been the precursor of the diminution of the cerebro-spinal inflammation; the symptoms of which appreciably diminished on the seventh day.

From Class 2, the two following cases are selected.

CASE IV.—Daniel L., a member of the Royal Irish Constabulary, aged 20; a few hours ill before his admission into Dr. Steevens's Hospital on January 31st, 1868,* collapsed; limbs cold and rigid; swallowed with difficulty; a purpuric spot visible over right clavicle; no spots elsewhere. Went to bed well the night before; awoke feeling unwell the following morning; became insensible shortly after, and was brought to hospital, where I saw him about ten o'clock.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
1	24	130	100
2	24	120	99
3	30	120	99·5
4	Gasping	Imperceptible.	

On the day of admission, he was ordered turpentine enema, leeches behind ears, blister to nape of neck, heat to extremities, eight ounces of wine and iodide of potassium internally. The patient soon got out of the state of collapse, but unfortunately his temperature was not observed at this period. On the second day, a large number of purpuric spots, shotty to the feel, were found scattered over various parts of the body; being especially numerous on the legs. On the third day, he was worse; and he died on the fourth day at ten o'clock A.M. The temperature as noted in this case was not very high; but it is probable that it rose during the first day, after the note was taken.

The *post mortem* examination in this case showed a large amount of tarry blood in the cerebral sinuses; the cerebral arachnoid was intensely injected, and opaque in patches in all directions; considerable lymphy deposit was observed at the base of the brain. The spinal cord presented similar appearances to the brain; the lymphy deposit being most remarkable among the nerves of the cauda equina.†

CASE V.—Ellen K., aged 7 years; about twelve hours ill before her admission into Cork Street Hospital on the afternoon of February 20th, 1868.‡ Illness commenced with vomiting and purging. On the morning of the second day, she was still insensible, except to touch. There appeared to be considerable hyperæsthesia of arms and legs; not much stiffness of limbs; numerous shotty purpuric spots on body and arms, and large purpuric patches on legs. She was ordered leeches behind ears, bromide of potassium, and wine. Was worse on the following morning (third day), although slightly sensible and much warmer. She died at 7 P.M.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
2	24	84	95
3	60	160	102

The range of temperature through 7 deg. in twenty-four hours is remarkable in this case; as also its accordance with the great increase in number of the respirations and frequency of the pulse.

The next four cases are examples of the third class, and may be considered as average specimens of cerebro-spinal meningitis.

CASE VI.—Mary R., aged 14 years; four days ill before her admission into Cork Street Hospital on July 9th, 1867. Pain in abdomen; vomiting and purging; severe pain in, and much retraction of, head; great stiffness of neck; pain in, and stiffness of, legs.

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* This case, as Case II, came under my notice when discharging the duty of Dr. Burke, Physician to Dr. Steevens's Hospital.

† The brain and cord above mentioned were exhibited to the Pathological Society of Dublin on February 8th, 1868.

‡ This case was under the care of my friend and colleague Dr. Mason.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
5	30	84	102
6	24	120	102
7	30	120	103
8	38	110	103
9	38	120	103
10	39	105	100
11	40	96	101.2
12	20	90	101.2
13	Natural	80	99.6
14	20	108	101.5
15	20	96	101
16	20	84	100
17	20	80	—
18	28	108	102.5
19	24	100	100
20	—	90	98

The patient improved gradually; the only complication being bronchitis on the ninth day, which was slightly augmented on the fifteenth and eighteenth days. On the two latter occasions, there was increased temperature. The meningitic symptoms were most severe on the eighth day; on which the respiration was very quick, and the pulse very frequent; but the temperature, although high, did not rise above that on the previous or following day. The case is also remarkable for the steady high temperature (103 deg.) maintained for three successive days (seventh, eighth, and ninth). The patient was convalescent on the twenty-second day. The treatment in this case consisted of leeches to the head and blister to the nape of the neck; internally, iodide of potassium and a small quantity (never above two ounces per day) of wine.

CASE VII.—Thomas E., aged 18 years; five days ill before his admission into Cork Street Hospital on February 22nd, 1867. All the symptoms of meningitis well marked, but no spots.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
6	30	90	101.5
7	26	64	101
8	18	60	101.5
9	18	84	101.5
10	36	72	102.5
11	39	115	102
12	40	96	103
13	30	84	102
14	—	—	—
15	48	100	102.5
16	—	—	—
17	40	72	102
18	28	84	99

This is a good example of a case where slight relapses occurred on the twelfth and fifteenth days; each relapse was accompanied by a rise in temperature. The patient was worse before than after the tenth day, although the temperature rose higher during the latter than the former period. The treatment in this case was similar to the last.[*]

CASE VIII.—John G., aged 5 years; four days ill before his admission into Cork Street Hospital on July 13th, 1867. All the usual meningitic symptoms (including excessive hyperæsthesia over all parts of trunk and limbs) well marked; a considerable number of small purpuric spots (not shotty to the feel) scattered over the legs; one large purpuric patch, of about the size of a half-crown, on the outer part of the left leg. Effusion of pus into the anterior chamber, and considerable conjunctival inflammation of the right eye.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
5	24	130	100
6	40	90	104
7	24	140	101
8	30	120	101
9	30	120	101
10	36	96	100
11	20	108	99.5
12	20	108	100
13	20	96	100
14	20	80	100
15	20	96	100
16	20	108	100
17	20	100	100
18	20	105	100.5
19	20	100	98
20	20	84	99

The patient was convalescent on the twenty-third day. Effusion took place into the ankle, knee, and left wrist-joints. There were several relapses of the inflammation of the eye. The boy completely recovered from the disease and all its complications.[*]

The treatment pursued in this case was iodide of potassium and belladonna internally; leeches to temples and behind the ears, blisters to nape of the neck and along the spine; solution of sulphate of atropia dropped into the affected eye; and tincture of iodine applied over the affected joints. The range of temperature in this case seems to be that of favourable cases generally; namely, a steady rise from the normal to the highest, and steady fall again to the normal temperature, without any other important variations.

CASE IX.—Bridget R., aged 9 years; seven days ill before her admission into Cork Street Hospital on July 11th, 1867. All the symptoms of meningitis well marked, including extreme retraction of the head.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
8	36	133	100
9	34	132	102.5
10	30	96	100
11	34	100	100.5
12	24	100	100.5
13	24	84	101
14	20	100	99.5
15	20	98	99.2
16	30	100	100
17	20	96	98
18	20	84	98.5

The treatment consisted in quickly bringing the patient under the influence of mercury, by small doses of calomel administered every half-hour (Law's method), until the gums were slightly affected, when iodide of potassium was substituted for the calomel; belladonna was given with the calomel and iodide of potassium; leeches were applied behind the ears; blisters (dressed with mercurial, and afterwards with tartar emetic ointment) to head, nape of neck, and spine.

The range of temperature in this case resembles the last in some ways; but was interrupted in its fall by the slight rises on the thirteenth and sixteenth days; the former accompanied by intense local pain in the head, with temporary increase of the other symptoms; the latter gave rise to anxiety, but was not accompanied or followed by any serious change.

The remaining cases belong to Class 4.

CASE X.—William P., aged 5 years; one day ill before his admission into Cork Street Hospital on July 20th, 1867; was admitted in a state of collapse. When seen on the morning after admission, reaction had set in. There was a long slow inspiration and a short quick expiration; great hyperæsthesia; head retracted to an extreme degree; anterior chamber of right eye half filled with pus; there seemed also to be purulent effusion into the posterior chamber; apparently deaf, but takes notice of all surrounding objects, and calls for drinks, etc., when required. He was ordered iodide of potassium, with tincture of belladonna, and four ounces of wine; blister to head and cervical spine; leeches to temples; atropine to be dropped into affected eye.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
8	24	130	98
9	20	?	100.25
10	Irregular	?	97.5
11	,,	120	100.25
12	,,	120	100
13	,,	110	97
14	,,	130	98.5
15	,,	120	99
16	,,	120	100
17	,,	120	98
18	,,	90	103
19	,,	100	102
20	Not noted	90	100
21	—	140	101
22	—	120	100.5
23	—	140	101
24	—	100	98
25	Irregular	120	99
26	,,	120	98
27	,,	120	99
28	26	130	100.5

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[*] This case was under the care of my friend and colleague Dr. Kennedy.

[*] I saw this patient several months after his discharge from the hospital. His mother told me that, shortly after his return home, he got a fresh attack of inflammation in the eye, which (not having received any attention) completely destroyed the sight.

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
29	30	144	102
30	28	130	103
31	30	130	103
32	24	120	101.5
33	24	120	99
34	Not noted	100	98
35	—	100	98
36	—	108	99
37	—	110	99
38	Irregular	96	97.5
39	,,	84	96.2
40	31	100	102
41	26	86	99

The temperature soon fell to the normal, and there was no further variation of consequence. The patient remained in a very doubtful state for two months, and was discharged in October quite well, except his eye, which was almost useless. The foregoing range of temperature shows well the frequent variations which occur in cases of this class. Each of the great rises in temperature corresponded with an aggravation of all the symptoms of meningitis. On each occasion on which the temperature fell very low, as on the tenth and thirty-ninth days, the patient fell into a state of almost hopeless collapse. It is worthy of remark that, on the eighteenth day, a temperature of 103 deg. corresponded with a pulse of 90; while, on the thirtieth day, a similar temperature corresponded with a pulse of 130. A similar want of relation may be observed on the thirteenth day, when a temperature of 97 deg. accompanied a pulse of 110. All these discrepancies between pulse and temperature were accompanied by other urgent symptoms.[*]

CASE XI.—Patrick E., aged 20, a member of the Royal Irish Constabulary; three days ill before his admission into Dr. Steevens's Hospital on January 13th, 1868. All the symptoms of meningitis well marked; and numerous shotty purpuric spots.

A portion of the range of temperature in this case is given, on account of its reaching the remarkably high point of 110 deg. Otherwise, the variations much resembled those of Case X. The treatment pursued was also similar in the last case.

DAY.	TEMP.	DAY.	TEMP.
15	99.5	21, at 10 o'clock	110
16	100	21, at 1 o'clock	105.5
17	103.5	22	100
18	102.5	23	100
19	99	24	99
20	100	25	100

There were frequent variations after the twenty-fourth day; but the temperature never again rose above 101 deg. On the eleventh day, he thought himself convalescent; on the fifteenth day, the pain in his head returned, but was gone on the following day, to return again on the seventeenth, to improve again on the eighteenth day. This improvement continued until the twenty-first day, when he was seized with sudden pain in the head (the most severe he had yet experienced), causing him to cry out; his temperature rose to 110 deg. at ten o'clock A.M.; he vomited shortly after; and at one o'clock the temperature was 105.5. The patient from this time got worse; sometimes a temporary improvement took place; he became gradually exhausted; and died on the seventy-sixth day.

On *post mortem* examination, considerable subarachnoid effusion and slight opacity of the arachnoid at the base of the brain were observed. There was no increase of vascularity, nor minute structural change in the nerve-tissue, which was carefully examined by my friend, Dr. Robert M'Donnell.

So high a temperature (110 deg.) as that attained in this case on the twenty-first day, has, I believe, been only once recorded (Wunderlich), as occurring in a case of meningitis.[†]

CASE XII.—Kate D., aged 6 years; four days ill before her admission into Cork Street Hospital on July 12th, 1867.[‡]

DAY.	RESPIRATION.	PULSE.	TEMP. IN DEG. FAHR.
5	24	130	104
6	26	140	104.25
7	36	144	101
8	24	140	102.5
9	25	90	101
10	?	90	102
11	30	120	103
12	?	?	100
13	?	100	100
14	?	130	101
15	20	130	101.5
16	20	?	100
17	20	140	99
18	20	110	100
19	20	105	101
20	20	90	98
21	20	75	100
22	20	75	99
23	20	70	99.5
24	20	130	99.5
25	20	132	100
26	20	100	98.5
27	20	100	98.5
28	20	84	99
29	?	108	98
30	20	?	98
31	?	?	98.5
32	?	?	97.5
33	?	?	98

This case was treated internally by calomel, until the gums were slightly affected; then iodide of potassium and belladonna, with blister along spine, and leeches to head and behind ears. Herpes appeared on the face and right arm on the sixteenth day. This was followed by pemphigus. A small abscess formed on the right parietal protuberance on the twenty-fourth day. None of these complications were accompanied by an increase of temperature. There are many discrepancies between the pulse and temperature, as observed in other cases. However, the highest temperature (104.25 deg.) and most frequent pulse (144) occurred on the same (sixth) day.

From the foregoing cases and observations, we may, I think, arrive at the following conclusions, with regard to the thermometry of this disease. 1. That it has no typical range of temperature. 2. That the temperature seldom exceeds 100 deg. in mild cases (Class I—Case III being complex); 103 deg. in rapidly fatal (Class II), or moderately severe cases (Class III); or 104 deg. in any. 3. That the degree of temperature and frequency of pulse have not that accord usually found in acute disease; although the accordance is usually much closer in favourable (Cases I, II, III, VI, IX) than unfavourable cases (IV, VII, VIII, X, and XII). 4. That variations in temperature seldom precede, but usually (when at all related to) accompany variations in other symptoms. 5. That low temperatures (95 or 96 degs.) usually indicate a severe case, or bad result. 6. That high temperatures (over 104 deg.) indicate a severe case (VIII and X). 7. That great and frequent variations of temperature indicate a serious and prolonged case, with a very doubtful result (Cases X and XII).

[The above article was written in June last. Since that date, a valuable and elaborate report on "Epidemic Cerebro-Spinal Meningitis, or Cerebro-Spinal Fever", by Edward W. Collins, M.B.Dub., has appeared in the *Dublin Quarterly Journal of Medical Science* for August of this year. Mr. Collins's observations accord in the main with those above recorded, as they do also with those of several other observers of known repute. I believe that the report of Mr. Collins contains the most able digest which has yet appeared of the literature of cerebro-spinal meningitis.]

CASE OF TRIPLETS, OF WHICH TWO WERE BLIGHTED.

By W. V. Lyle, Esq.

ON the morning of July 27th, 1868, I was called to Mrs. D., and found her in labour. Digital examination showed the os dilated to the extent of a crown, and the head normally presenting. The membranes were unbroken. To the left and posterior side of the os, an undefined and moveable body intervened between the membranes and the presenting head. After a short time, I ruptured the membranes, and almost immediately was expelled a blighted fœtus of about four months' growth. The fœtus was attached by an attenuated cord. The labour progressed favourably, and a living female child of about eight months was born. A few minutes after the placenta was expelled, and in connexion with it, was a separate sac, containing another blighted fœtus, apparently of the same age—not, however, connected by any cord. The mother made a good recovery. The infant is also doing well.

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[*] This patient was under the care of Dr. Kennedy during the latter part of his residence in the hospital.

[†] The brain and spinal cord of this patient were exhibited at the Pathological Society of Dublin on March 28th, 1868.

[‡] This case has been referred to already in the JOURNAL of September 28th, 1867, as also Cases VIII and X. Case XII has also been mentioned (with special reference to the eruptions that occurred during its course) in the *Journal of Cutaneous Medicine* for 1868, page 39.

ON ANEURISM ON THE PULMONARY ARTERY, AS A SOURCE OF HÆMOPTYSIS.

By RICHARD PAYNE COTTON, M.D.,

Fellow of the Royal College of Physicians, London; Senior Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

In November 1865, a case of extensive and suddenly fatal hæmoptysis occurred to one of my hospital patients, and in searching at the *post mortem* examination for the source of the hæmorrhage, there was discovered a small and ruptured aneurism of a branch of the pulmonary artery in its passage through a vomica. This case was reported in the hospital records of the *Medical Times and Gazette* of January 13th, 1866.

A few months after this, a very similar case came under the notice of my colleague Dr. Quain, who brought it before the Pathological Society. (*Path. Soc. Trans.*, vol. xvii, p. 79.) Soon afterwards, a second case occurred in my own hospital practice, and was briefly reported in the *Medical Times and Gazette* of October 20th, 1866. A third case having very recently presented itself in my hospital wards, I propose placing the three together, and making them the subject of the present paper, believing that they will establish a new and important practical fact.

CASE I.—E. C., aged 20; male. Phthisis of ordinary character, but of rapid progress, having run its entire course in about four months. Hæmoptysis of moderate degree presented itself early in the disease, but was easily controlled. The expectoration continued to be streaked until within three days of the patient's death. At this period hæmoptysis suddenly occurred to the extent of half a pint, and continued more or less until death, which resulted from exhaustion consequent upon the sudden expectoration of about twelve ounces of very florid blood.

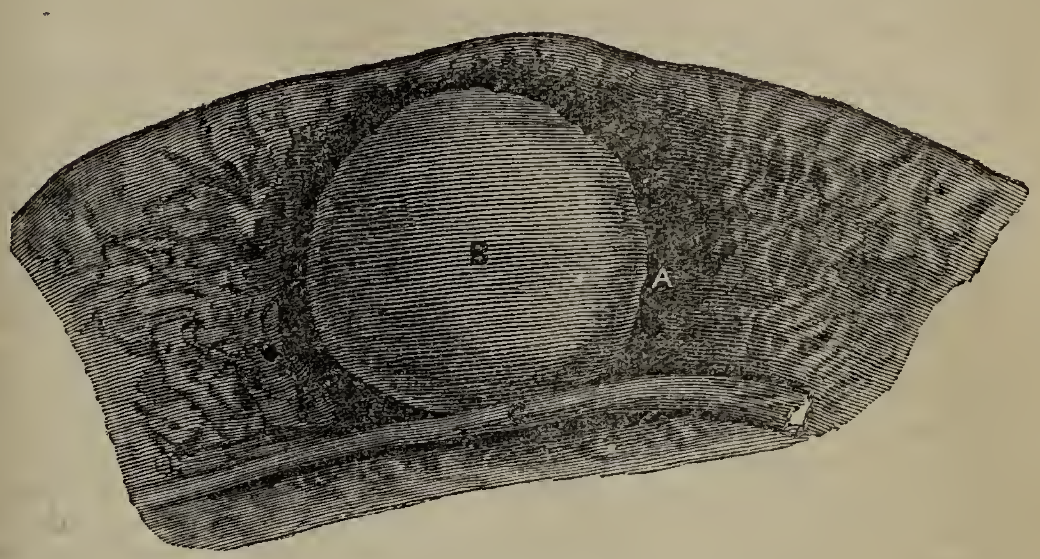
POST MORTEM EXAMINATION.—The body was emaciated; there was great anæmia. The right lung was pale and emphysematous, with a small tubercular cavity at its apex. The left lung was small and dense, and studded throughout with tubercle in various stages, and minute cavities. A large excavation occupied a great portion of the upper lobe, whilst a smaller cavity was found in the lower lobe. In the inferior and anterior part of the latter cavity a small clot was discovered, concealing a small aneurism on the cavity side of a moderate-sized artery running in a direction transverse to the lower end of the excavation. The aneurism occupied the whole of the exposed part of the artery, but, owing to a constriction in its middle, presented the appearance of two aneurisms. The greater dilatation was about the size and shape of a very large pea, and was not ruptured; the other dilatation was a trifle smaller, was filled with an adherent clot, and had a small opening in its upper part. The artery itself, close to the dilatation, measured transversely two-eighths of an inch. The heart was healthy.

CASE II.—W. J., aged 27; male. An ordinary case of phthisis of twelve months duration. In the early part of the disease the patient spat up about half a pint of blood, but never had a return of this symptom until he had been two months in the hospital, when he suddenly expectorated nearly two pints. The following day he coughed up about a pint more, and the succeeding day quite as much. For five successive days he continued to expectorate daily from five to ten ounces of blood, and then gradually sank from exhaustion.

POST MORTEM EXAMINATION.—The right lung was full of tubercular matter, and at its apex there was a small cavity. The left lung was contracted and had, in its upper lobe, three considerable vomicæ. The lowest of these contained an aneurism of the pulmonary artery coming off from a vessel running along its lower wall, the vessel itself being about the size of a crow-quill, and the aneurism about as large as a walnut. The wall of the aneurism, at a point opposite its attachment to the artery, exhibited a rugged opening, from which the hæmorrhage had evidently taken place. The inner surface of the aneurism was lined by a fibrinous lamina of varying thickness, and its cavity contained a recently-formed clot.

CASE III.—P. D., aged 15; male. A case of phthisis exhibiting in its early stages nothing worthy of special notice. The patient had been ill nearly two years, but never had hæmoptysis until he had been in the hospital more than two months, when he suddenly expectorated quite twenty ounces of florid blood. From this time until his death, which occurred about ten weeks afterwards, he continually spat up more or less blood. On one occasion, the quantity was measured, and found to exceed three pints; whilst, on another occasion, at least a pint and a half was coughed up. The patient at length sank from exhaustion.

POST MORTEM EXAMINATION (conducted by my colleague, Dr. Douglas Powell).—The body was much emaciated, with marked anæmia. The right lung contained at its apex a small cavity, surrounded by scattered tubercle. The left lung presented in its upper lobe an irregular cavity of considerable size, lined by false membrane, and containing a partially decolorised clot. Immediately below this cavity, laterally and near the surface, was another cavity about the size of a Tangierene orange, which was nearly filled with a flaccid and partially collapsed bag having very thin and friable walls. This bag or aneurism arose from a large branch of the pulmonary artery, of which it was evidently a dilatation, and contained only a small coagulum. The vessel itself, when dissected out, was found to be one of the primary divisions of the left branch of the pulmonary artery. The aneurism was free from fibrinous deposit, and was of sufficient size, when distended, to fill up pretty accurately the vomica itself. (See drawing.) The situation of the rupture was at its upper part.



A. Vomica near surface of lung. B. Aneurism of pulmonary artery nearly filling up the vomica. C. Pulmonary artery.

In the three cases thus briefly, but perhaps sufficiently, described, the aneurismal dilatations of the pulmonary artery, however differing from each other in size and conditions, evidently arose from a similar cause. Instead of the artery either terminating abruptly at the circumference of the vomica, or running along its walls as a partially or completely obliterated vessel—as usually happens in cases of tuberculous cavities—it had remained pervious, and from losing the support of the surrounding lung tissue on the cavity side of its walls, had become dilated into an aneurismal pouch.

There appears to have been no one symptom common to all three cases, except the sudden, severe, and uncontrollable hæmoptysis. It is unlikely therefore, that, except in some very unusual case, however much the pathological condition I have described may be suspected, it can be certainly diagnosed during the life of the patient. I think, however, it may now be fairly established that the rupture of an aneurismal dilatation of a branch of the pulmonary artery within a tuberculous cavity is not merely—as I confess I believed, when the first case came under my notice—a pathological curiosity, but a condition which is not only far from being infrequent, but also one of considerable practical importance, as the probable explanation of numerous cases of extreme and suddenly fatal hæmoptysis occurring during the last stage of consumption.

CONGESTION OF THE EYEBALL IN A CASE OF DISEASE OF THE PONS.

By JAMES RUSSELL, M.D., F.R.C.P., Birmingham.

In the JOURNAL of October 3rd, Dr. Ogle quotes a case of extravasation of blood within the pons Varolii, in which a remarkable alteration in the size and form of the pupil occurred, together with a prominent state of the globe.

I have this morning again visited a patient whom I saw eight months ago with my friend Mr. Hickenbotham. In May 1867, she suffered a sudden attack of *left* hemiplegia (the tongue deviating to the left side), accompanied by considerable paralysis of the *right* portio dura. Three or four days after her attack, one eye (Mr. Hickenbotham is not certain which one) became much congested and swollen, and continued so for three days. I now find the patient in a state little better than was her condition ten months ago; but I learn that she is subject to very frequent return of the congestion in the right eye (the side of the paralysis in the face). Once only has the left eye been similarly affected. There is no lacrymation, nor can I learn that the face is flushed at the time. My friend cannot tell me what is the condition of the pupils. At the present time, they are equal, active, and of normal size and shape. There is no prominence of the globe.

THE USE OF CHLORIDE OF MERCURY IN SULPHURETTED HYDROGEN DEPOSITS IN THE SKIN.

By J. MARTIN, Esq., Queen's College, Cork.

MANY diseases of the skin consist of, or are accompanied by, inflammation of the orifices of the sebaceous and sudoriferous glands, varying in appearance, but usually presenting that of a pustule with a central black clot. This inflammation is caused by the retention of the secretion in the gland-tube, which, undergoing decomposition, hardens and acts as a foreign body. The normal secretion of a sebaceous gland consists of an oily hydrocarbon, which serves the double purpose of draining off effete material from the system, and lubricating and softening the skin. In certain unhealthy states, the screw-like duct becomes impervious, the hydrocarbon decomposes in contact with the skin, sulphuretted hydrogen is evolved, which, on exposure to light at the orifice of the duct, becomes black. This retention may arise either from an abnormal state of the secretion, or defective action of the gland.

It is probable that it depends on both these causes; for we find the symptoms alleviated, first by increased nutrition, and secondly by local stimulant applications. The increased nutrition causing an increase of carbon, the small quantity of which, in proportion to the hydrogen, during the affection permitted the excess of hydrogen to enter into combination with sulphur, The topical treatment acts by stimulating the capillaries and lymphatics, and thus increases the physiological activity of the gland.

We know that, in the preparation of sulphide of mercury, vermilion, it is necessary to add to a solution of the chloride of mercury an excess of sulphuretted hydrogen gas. If this be not attended to, and the chloride of mercury happen to be in excess, the red sulphide is not formed, but a white substance, which is a combination of chloride and sulphide of mercury. $\text{Hgcl} + \text{HS} = \text{Hcl} + \text{HgS}$ is the formation of the red sulphide of mercury; $2\,\text{Hgcl} + \text{HS} = \text{Hcl} + (\text{Hgcl} + \text{HgS})$ expresses that of the white body referred to.

Corrosive sublimate, then, in addition to its stimulant action, possesses chemical properties which render its use as a remedial agent peculiarly adapted to the treatment of acne, and cutaneous affections of this class, since it removes the black spot by combining chemically, and an apparent cure is thus effected before the remedy has had time to cause a real cure, which in a short time it also does, by stimulating the gland sufficiently to make it cast out its accumulated contents. I have seen obstinate cases cured by the application of the following lotion several times daily.

℞ Hydrag. chlorid. (cor. subl.) gr. viij; glycerini pur. ℥ss; aquæ rosæ ʒiijss.

The removal of the black spot is not to be considered an unimportant effect of this remedy; for the affection frequently attacks the side of the nose, the forehead, and soft parts of the face.

I am not aware that corrosive sublimate baths have been used in the treatment of extensive discolorations of the skin; but, reasoning analogically, it is not too much to assume that all discolorations, when the symptom is more apparent on the face and hands than on the covered parts, are caused by the action of light on the surface of the body, and may be removed chemically by applications to the surface. The discoloration, or rather coloration, produced by the internal use of nitrate of silver, is not restricted to the face and hands, for the salt acts on organic matter to some extent independently of light; it is an internal action. This affection is successfully treated by the administration of a chemical remedy, iodide of potassium, by Professor Melsens of Brussels. There does not appear to be any reason, then, why the still more direct treatment of external chemical action by external chemical remedy should not also succeed. It, at least, deserves a trial. It is probable it may be useful in the so-called "bronzed skin", referred to unknown and unascertainable morbid conditions of the suprarenal capsules. I say unascertainable; for, owing to the peculiar nature of these glands, even in the healthy subject, they run into decomposition before a *post mortem* examination can possibly be made. I have heard a professor of physiology in one of our universities state that, although he has seen many thousands of suprarenal capsules, he could not pronounce a given specimen positively healthy or unhealthy, for the reason just assigned. But may it not be, after all, that this condition is, in reality, nothing more than a peculiar symptom of impaired nutrition—that is, of an insufficient supply of carbon. A patient suffering from the disease which Dr. Addison referred to these glands, "has gradually fallen from his usual state of health, has become weak, pale, thinner, but not emaciated, languid, spiritless, unequal to bodily or mental exertion, with flabby muscles and a soft pulse, which commonly is very feeble also." These symptoms are very like what we should expect, *à priori*, from a deficiency of carbon in the system. "Not emaciated"; for hydrocarbons do not really nourish, but are used in fat and heat. It is not surprising, however, that a very extensive and far gone state of decomposition may accompany these symptoms, not as cause, but effect, when we consider that Kölliker has counted as many as thirty-three filaments of the pneumogastric nerve entering into one capsule. We must receive reports on the pathology of these glands with great caution, if not doubt; and is it not possible, without referring to these bodies, of which so little is known, to find the cause of this disease in deficient nutrition, a too small proportion of carbon, and the consequent existence of abnormal, and perhaps poisonous, substances in the economy?

RUPTURE OF THE BLADDER AND ENTERITIS.

By HENRY CHARLES ANDREWS, M.D.

THE following case is one of considerable clinical interest, inasmuch as the actual injury (rupture of the bladder) was at first marked by other symptoms and by the absence of any correct history.

On July 15th, 1867, the wife of a tradesman requested me to prescribe for her husband, aged 30, who was suffering with diarrhœa and cramp-like pains in the abdomen. He had been to Hyde Park in the morning to witness a swimming match in the Serpentine, and had taken some old ale during the day, which excited him, but he was not intoxicated. In the course of two hours, the messenger returned to say the diarrhœa was checked, but he was unable to pass urine, having voided only a little blood. On arriving at the house, no confession of being engaged in a quarrel could be obtained; so I made a careful examination of the abdomen, pelvis, and spine. A small quantity of blood was oozing from the urethra, but no external mark of violence to any organ could be perceived. Being provided with a case of catheters, a No. 7 was introduced easily, and I drew off about thirty ounces of urine tinged with blood.

The patient appeared much relieved by the operation, and was to remain quiet in bed, with instruction to take a sedative draught, if restless. He passed an uneasy night, and I visited him at nine o'clock in the morning. On being taxed with having taken part in a disturbance of some kind, he admitted to have had some words with a stranger, who threw him down in the tavern and fell on his side. I drew off a quart of urine containing much less blood than on the first occasion. A soothing alkaline mixture was prescribed, to be taken every four hours, and a linseed poultice was at once applied, directions being given as to suitable diet. In the evening, another pint and a half of urine was removed with merely a trace of blood, and the prognosis seemed more favourable.

Wednesday, July 17th.—He had passed a fair night, yet still suffered much distress from inability to void the urine. Thirty ounces were drawn off, and he seemed cheerful over the circumstance, promising to hold no further arguments with chance companions. The expression of the countenance being somewhat anxious, and the pulse quick, I felt apprehensive of peritonitis, and ordered the mixture to be continued with plain milk and farinaceous substances. During the afternoon, spasmodic pain was complained of, for which an opiate draught was taken with benefit. A dose of castor-oil was subsequently partly retained, yet failed to produce an evacuation from the bowels. Towards evening, the pain seemed more diffused, with tenderness over the left inguinal region, and there was nausea with occasional vomiting. The bladder was again relieved at nine o'clock by my assistant, Mr. E. Thomas, and a pill containing calomel and opium was administered every four hours.

The morning of July 18th found things more complicated, and it was apparent the patient was fast sinking. There was increased pain and tenderness; pulse small, weak, and frequent; countenance pale and cadaverous; green, bilious matter being vomited continually. Death took place soon after nine A.M.

Autopsy, thirty hours after death.—No evidence of external violence could be discovered beyond a slight abrasion of the face. The thoracic viscera were normal in appearance. The stomach contained a small quantity of greenish fluid. The liver and spleen were healthy. On examining the bladder, there was a vertical slit an inch and a quarter in length, on the upper and anterior part of the fundus, which accounted for the distressing symptoms above enumerated. Some fluid was effused within the abdomen, and a yet larger quantity mixed with pus was in the cavity of the pelvis. The small intestines were congested and inflamed throughout their course, and the colon was distended with flatus.

From subsequent inquiries, it was ascertained that the deceased had been involved in an unpleasant conversation on building affairs, which led to a difference of opinion and passage of arms, during which unfortunate scuffle the misguided man fell heavily beneath his adversary, who was very corpulent and heavy.

ON OPERATIONS FOR CARIES OF BONE.

By F. LE GROS CLARK, Esq.,
Surgeon to St. Thomas's Hospital.

MANY years since, I discarded the use of the gouge in treating carious bone, and I am glad to find my convictions on this subject confirmed by Mr. Holmes Coote. The progressive disintegration of cancellous tissue is essentially identical, in all its leading features, with ulceration of soft parts. In some instances, this destruction, or death, is rapid, as in phagedæna; or slow, as in scrofulous subjects. The increased vascularity, when present, is really due to the reparative effort, and generally a measure of its activity; and is not a necessary accompaniment of the destructive stage. How do we treat abscess or ulcer, which are, in fact, but modifications, in their mechanical features and relations, of the same condition? We open the abscess, and take care that its contents shall have free vent; but we do not scoop it out, because it happens to be foul from the presence of disorganised tissue; nor do we scrape the surface of a foul ulcer. But we stimulate the sluggish parts with appropriate applications, and extend a narrow or sinuous opening, so as to give free vent to the discharge.

My practice, and what I regard as the rational treatment of these cases, is embodied in the following passage, which I extract from one of my Clinical Lectures, published in the *Medical Times and Gazette* for February 16th, 1861. "As regards operations for the removal of carious bone, I cannot say that my experience justifies my recommending the proceeding of gouging out the diseased texture. My belief is, that violence thus offered to the parts often involves the surrounding healthy bone in diseased action, and thus leaves the patient in a worse state than before. The condition is analogous to that of an excavated ulcer in soft parts, and seems to me to be more amenable to treatment adapted to such state. Sinuses may be freely laid open, and suitable dressing employed, to encourage a healthy action and spontaneous cure. But I am aware the weight of opinion, as regards the general practice, is adverse to this negative treatment."

Such has been my practice for many years; and I may add that I have found considerable advantage in the use of diluted acetic acid (which I have latterly substituted for phosphoric) as a bone-solvent, as well as a stimulant in carious cavities which have been previously laid freely open by external incision. Caries is usually primary; rarely secondary on ulceration of the skin surface, but not infrequently so, by extension of disease from a synovial surface. In the knee-joint, this secondary condition, destroying the cartilage in its progress, is often met with; and I think still more frequently in the tarsus, where the continuity of the synovial membrane favours and guides the extension of the disease.

THERAPEUTICAL MEMORANDA.

TREATMENT OF ECZEMA.

By W. H. AXFORD, M.B., Bridgwater.

APROPOS of Dr. Basham's case of Acute Eczema given in the JOURNAL of October 10th, the following case, which is of interest as being apparently due to suppressed menstruation, shows the great benefit to be derived in such acute cases from lotions containing gallic acid.

M. A. B., aged 18, was admitted as an out-patient at the Bridgwater Infirmary on September 21st. She had generally been a healthy girl, and had always been regular until the last period, which she missed a fortnight ago. A few days ago, a rash, consisting of very minute pimples, appeared, commencing at the upper part of the chest, and spreading rapidly to the arms, the whole front of the body, and upper part of the thighs. The rash was a bright scarlet, and exudes a watery fluid, especially on the left arm; in some parts, this fluid had dried, forming yellowish scabs. The itching was intense. There were some signs of indigestion. She was ordered a mixture, containing bismuth and hydrocyanic acid, three times a day, and a lotion.

℞ Sodæ sesquicarbonatis ʒij; glycerini ℥ss; aquæ ℥viij. M. Fiat lotio sæpe applicanda.

Sept. 26th. Somewhat better; less itching; but still considerable exudation of watery fluid.

℞ Acidi gallici ʒj; glycerini ℥j; aquæ ℥viij. M. Fiat lotio sæpe applicanda.

The mixture was ordered to be repeated.

Sept. 28th. Much better; the itching was much less; and there was not nearly so much exudation. No part had yet, however, healed.

She did not again come to the Infirmary until October 3rd, when she appeared quite well, stating that the catamenia had appeared on Sept. 29th, and that the rash immediately began rapidly to disappear.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

THE MIDDLESEX HOSPITAL.

REMARKABLE CASE OF FRACTURE OF THE SKULL: TREPHINING: DEATH.

(Under the care of Mr. CHARLES MOORE.)

THE following case is one of not only great clinical interest, but of considerable importance in a medical point of view. That a man falling from a height, and receiving a blow which caused so extensive and dangerous a fracture, should be able to continue his work and walk a considerable distance with little if any evidence of mischief, is surprising. The case certainly loses none of its interest by the progress and result.

A. M., aged 40, was brought to the hospital in the evening of September 4th, said to have fallen, in the morning of the same day, from a height of ten feet on to his head. It seems that, after the fall, he got up, walked a short distance, and continued to work. He also entered into conversation with his fellow-workmen, and talked to them of his fall. They thought, from his manner and gait, that he was intoxicated. Late in the afternoon, he was found lying insensible in a cellar, and brought to hospital. His extremities were cold; the pupils were moderately contracted, but equal; the pulse 72. Half an hour later, the left pupil became contracted to the size of a pin-point, the right remaining as before. Temperature 98.6. At 9 P.M., Mr. Moore trephined. On making an incision over the right parietal bone, where the skin was broken, and to which the patient was observed to raise his hand, a fracture was found extending along the right parietal bone. A triangular piece of bone was removed, and a large clot discovered beneath the dura mater. The clot was scooped out, and two spouting points observed. They could not, however, be reached so as to apply ligatures. The wound was, therefore, left open, and ice applied to the head. The patient did not rally, but died during the night.

The *post mortem* examination was conducted by Mr. Henry Arnott, Surgical Registrar, to whom we are indebted for the following notes. The fracture of the skull was found to extend from near the vertex on the right side in front of the ear nearly to the temple. On removing the calvaria, some clotted blood was found between the bone and dura mater at the seat of operation; but the membrane was not torn at this point. Lower down, however, and anteriorly, was a rent in the dura mater; and, on lifting the upper part of the membrane, a quantity of black grumous blood, mixed with mashed brain, escaped. On further examination, it was found that nearly the whole right cerebral hemisphere, except about an inch in depth of the upper surface, was torn up, laying freely open the lateral ventricle, and rendering the parts in the base of the brain nearly indistinguishable. The cerebellum, pons, and left half of the cerebrum, were alone free from injury. Of the central parts of the base, the two optic nerves were alone recognisable. The right corpus striatum and optic thalamus were destroyed, and their place occupied by clot and torn brain-substance. The fracture ended in the right anterior fossa, crossing the groove in which ran the meningeal artery. Blood was effused into the posterior part of both orbits. The bone, however, was not broken here. With the exception of the lungs being congested, the other viscera were healthy.

ST. MARY'S HOSPITAL.

PETECHIAL TYPHUS FEVER IN A BOY: RECOVERY.

(Under the care of Dr. SIBSON.)

IN the JOURNAL of October 10th we published an interesting case of petechial typhus fever, which proved fatal on the eighth day, under most painful circumstances. We now give a short account of a similar case, which happily, however, terminated in recovery.

In his volume on *Continued Fever*, Murchison truly remarks, that "the ominous character of the livid and petechial eruption has been mentioned by all writers from the earliest period." The petechiæ in this case were unusually severe; they were literally black, which betokened a severe form even of petechial typhus. There were, however, certain indications in this case which gave a ray of hope that he might possibly pull through. These were especially dwelt on by Dr. Sibson in an interesting clinical lecture on the subject. In the first place, there was his youth—a matter of incalculable importance. Secondly, his tongue, although dry, was dry only on the surface; it had not shrunk up into a hard, black, rounded ball; and its surface was red. Thirdly, the stage of the disease was so far advanced as to give additional hopes of possible recovery. Dr. Sibson ordered large quantities of wine and milk; and, in addition, beef-tea, containing the pulverised meat. The result was far beyond all that could be expected. On the following day, he was markedly better, and rapidly convalesced. There can be no doubt that the case was one of typhus. As Dr. A. P. Stewart first pointed out in this country, the spots in typhus become developed into petechiæ in these severe examples of the disease; and in this case the petechiæ, as they faded, left the characteristic typhus-spots behind.

The patient was a boy aged 13, who was admitted on October 7th of this year. Although he was conscious if roused, still it was difficult to get answers from him. All that could be elicited was, that he had been ill for a fortnight. During the night, he kept jumping in and out of bed. On the following day, it was noted that he was pale, with the veins on the forehead prominent. His eyes were closed, and his mouth open; the pupils somewhat dilated, and his eyes turned downwards. He allowed the flies to crawl over him. He returned no answers to questions; and, unless pressed to do so, he would not put out his tongue. It was dry and red. There was a black film of sordes on his lips and teeth. There were numerous more or less small *black* spots, irregular in shape, over his whole body and limbs. Temperature 99.5, and pulse 105; respiration variable, from 48 to 60 in the minute. His bowels had been opened once since admission. He, however, lay partially on his right side. Dr. Sibson directed that twelve ounces of port wine should be given during the next twenty-four hours, in small quantities, at regular intervals; that, in addition, abundance of milk should be given him; and that his surface should be sponged, and the sordes carefully cleaned from his mouth and lips. He was given, in addition, some beef-tea. No medicine, however, was given.

On the following day, his appearance presented a marked contrast to that above described. He was lying on his back. He was now no longer unconscious. He answered questions, and put out his tongue, which was clean and moist, and drawn back readily. There were no sordes on his lips and teeth, as they had not accumulated since washed off; and the petechiæ were fading. His respiration was still irregular and unequal, about 48 per minute. He, however, expressed himself as better. From this date, he rapidly improved, and the petechiæ gradually disappeared. During convalescence, some undoubted typhus-spots were observed, and remained on the abdomen for some days afterwards; but they had quite disappeared, as well as the petechiæ, on Thursday, the 15th, when he was far advanced towards complete recovery.

UNIVERSITY COLLEGE HOSPITAL.

SCIRRHUS OF THE RECTUM: RETENTION OF FÆCES: AMUSSAT'S OPERATION.

(Under the care of Sir HENRY THOMPSON.)

THE following case is a good example of the temporary benefit to be derived from Amussat's operation in obstruction of the lower bowel from malignant disease. It is also of interest from the early age at which scirrhus occurred.

D. D., a young warehouseman, 20 years of age, and unmarried, was admitted on September 18th, 1867. He stated that he had suffered, six months previously, from irritation around the anus, and a feeling of discomfort when sitting. This was relieved by opening medicine; and, with the exception of habitual constipation, he remained free from discomfort until June. The recurrence in June was accompanied by pain and a dirty brown discharge, and sometimes blood. On admission, Mr. Berkeley Hill examined the parts, under chloroform, by means of a duck-billed speculum, and found that two-thirds of the circumference of the rectum, chiefly on the left side, were involved in a hard, rough, ulcerated mass. A solution of chloride of zinc, eight grains to the ounce, was applied. The patient continued for a month in much the same condition, the pain and discharge varying, and occasional sickness occurring.

On October 23rd, Sir Henry Thompson removed one-half of the tumour by means of a galvanic current, a wire being passed under the base of the ulcer. The remainder of the tumour was removed by means of the *écraseur* and bistoury, which latter was followed by profuse hæmorrhage, but was stopped by means of the actual cautery and plugging. During the night, he was sick several times. He felt relieved by the operation, and continued so during the six weeks he remained in the hospital. He was then discharged for the time relieved.

On June 16th, 1868, he was readmitted with retention of fourteen days' fæces. The rectum was so choked up with a hard cancerous mass, as to prevent the introduction of the finger. After consultation with Mr. Erichsen, Sir Henry Thompson determined to perform Amussat's operation, with the view of giving the patient relief. The gut was easily reached, and found much distended with flatus. A moderate quantity of feculant matter escaped when opened.

The operation was followed by considerable relief. Small masses of fæces for the next twenty-four hours passed by the wound. Carbolic acid and tinfoil were placed around the opening, to act as a valve and deodorise the discharge, which it did very effectively. His water had to be drawn off. On June 19th and 20th, a small quantity of fæces passed *per rectum;* and, although his pulse continued high, about 136, and he felt sore all over, still he suffered little pain in the wound, and he took his food fairly. On the 23rd, all the sutures had come out, the wound was granulating healthily, and he was otherwise improved. From this time, he kept wonderfully well, although his pulse was certainly high, 130 to 140; and he suffered more or less pain in the wound, partly at first from the tin apparatus used to keep it open. The finger could now be passed easily into the rectum. The urine had to be drawn off several times a day, and, on the 29th, was thick and alkaline, and contained a good deal of pus for the first time. He also at this time complained of a good deal of lumbar and hypogastric pain. He, in a few days, began to suffer from diarrhœa, which was relieved. A bed-sore now began to appear; and on August 10th, very bad diarrhœa set in again, with constant retching, and a great deal of matter passed with the motions from the bowel. There was also a little exudation from the rectum, which was washed with a solution of carbolic acid. It was now found necessary to give subcutaneous injections of acetate of morphia to procure sleep. He from this time gradually sank, and died on August 16th, conscious to the last.

At the *post mortem* examination, the notes of which were kindly given us by Mr. Cluff, House-Surgeon, the whole rectum, from the anus to the sigmoid flexure, was the seat of scirrhous deposit. The walls of the gut were everywhere greatly thickened and indurated; and, at a spot two inches distant from the anus, the calibre of the bowel was so narrowed as only to admit a No. 6 catheter. This narrowing extended upwards for about an inch. The bowel was nowhere absolutely occluded. The walls of the bladder, and the glands, both inguinal and lumbar (on both sides, but especially on the left), were the seats of dense deposits of scirrhus. The right ureter was much dilated; and the pelvis of the right kidney full of pus. There was no cancer, so far as could be ascertained, in any other part of the alimentary canal, or in the liver or spleen; but the pancreas contained scirrhous infiltration, and there was one cancerous nodule in the right lung. There was nothing else of any importance.

DUBLIN HOSPITAL REPORTS.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

DR. LYONS'S CLINIQUE.

DR. LYONS commenced his course of clinical instruction in these hospitals on October 1st. His wards have already furnished a considerable number of cases of much interest. We select for notice on the present occasion two very remarkable and well contrasted examples of acute disease. With very different origin, and very divergent clinical symptoms, a cerebro-spinal complication was common to both, as an incidental phenomenon in the one case, and as the main pathological condition in the other, according to the opinion of the clinical professor whose views we quote.

CASE I. *Cerebro-spinal Meningitis.*—G. B., aged 19, of lithe and active figure, by trade a barber, was admitted into the Hardwicke Hospital on Sept. 30th. He stated that in the night of September 19th-20th he assisted very actively in the efforts to extinguish the great fire which consumed Meade's Saw-mills, and partially damaged the Westland Road Railway Station. He got wet through from the hose of the fire-engine; and, on returning home, lay down to sleep in his still wet clothes. On the next day, he complained of severe and prolonged shivering, with great pain in the head and down the back; and, on the subsequent days, general feverish symptoms supervened, which increased daily until the period of his admission to hospital. On admission, the patient was in a low, prostrate condition. He lay on his back; was fully conscious; answered all inquiries readily and intelligently. The general surface of the body was natural in colour; and at no time were spots or patches of purpuric discoloration anywhere observable on the trunk or extremities. The skin was dry and hot; and the temperature was about 102° throughout for several days. The eyelids were partially closed; the pupils were natural, being neither sensibly dilated nor contracted; the tongue was pretty thickly furred; and the pulse was 60 per minute. There was no mental derangement. He answered rationally when spoken to, but at all other times lay perfectly quiet and silent. There was no hyperæsthesia of any part of the surface.

Notwithstanding the very masked character of the above symptoms, the diagnosis of cerebro-spinal meningitis was made by Dr. Lyons. The head was shaved and freely vesicated; and the linimentum belladonnæ was rubbed along the spine. The extract of belladonna was exhibited in quarter-grain doses, gradually increased to half-grain and one-grain doses, in consequence of the remarkable success which attended the administration of this drug in similar cases, on a former occasion, in Dr. Lyons's clinique; but at no time, in the instance under consideration, was the smallest effect on the pupil produced, even when five grains of the drug were exhibited between night and morning.

For the first three or four days after admission to hospital, the symptoms continued with little or no alteration. The patient lay quiet, but seemed to sleep little. The bowels were constipated, and required the stimulus of pretty active enemata. The urine had to be drawn off by the catheter, and was found to be highly fœtid and ammoniacal. Bilious vomiting took place on one day, and coincidently the pulse fell to 54. Until within the last four days of life, the pulse was usually from 60 to 64, very slow and labouring, rising occasionally within an hour to 84 or 90, and then quickly returning to its standard rate. For the four days prior to death, the pulse was about 80, and became gradually weaker and weaker.

Between the fifth and seventh days after admission, delirium supervened. He was with difficulty restrained in bed; and for about thirty-six hours hyperæsthesia of almost all parts of the surface was noticeable, but subsequently sensibility seemed to become impaired. He now lay in a stupid state, not insensible, but could not be got to put out the tongue, or perform any trivial act required of him. All control over the sphincters was now lost, and henceforth he passed both urine and fæces involuntarily. He rallied somewhat from the state of stupor; put out his tongue, etc.; readily swallowed all fluids given to him; but lay still, passive, and prostrate; and the elbows, knees, and feet assumed a somewhat livid hue. Without the development of any fresh symptoms, he died on the eleventh day after admission.

On *post mortem* examination, rigor mortis was very strongly marked. The dorsal region was arched by a very extreme amount of opisthotonos (at no time present during life), and supination of the forearm existed. The posterior parts of the elbows, knees, ankles, and the feet exhibited some livid discoloration; but the surface generally was of good colour, and the body was that of a vigorous young man in the prime of youth. The *brain* was healthy; the arachnoid on the superior and inferior surfaces was somewhat congested, but not very remarkably so; and though slight opacity could be detected here and there, no lymphy exudation was to be found. The *spinal cord* was throughout considerably softened, especially in the cervical and lower dorsal regions. The arachnoid was somewhat congested, but not so much so as in other instances; and it was not until the pia mater was raised, that a thin coating of finely granular and semipurulent lymph was detected, occupying the greater extent of the cord on both the anterior and posterior aspects.

CASE II. *Typhus Fever; Purpura; Cerebro-spinal Irritation.*—Rose H., aged 4, was admitted to the hospital on October 5th, 1868, having been previously eight days ill. She was freely spotted all over with the maculæ of typhus; but the feature of her case, which at once struck the observer, was the presence of several very large pompholytic blebs with deep purpuric coloured base, and sanguineous contents, varying in size from the section of a moderate plum to that of half an orange. The largest occupied the sides and back of the head, including the ears, while others appeared on the face, one involving the lids of the left eye, on the right aspect of the trunk, and a few on the extremities. The appearance and disfiguration thus resulting, produced an effect at once shocking and revolting. The temperature of the body was about 100 deg.; the extremities were rather cold. The little patient uttered a constant moaning cry, and drew the clothes as tightly about her as possible. The tongue was covered with sordes; the pulse excessively weak, quick, and hardly to be counted—120 to 130. On the next day, it was found that retraction of the head was now superadded to the other features of the case, and to such a degree that the occiput touched the spine. The little creature continued very restless, moaned constantly, had no sleep, took wine and food, vomited them back once or twice, but at other times swallowed freely enough. Fresh purpuric patches made their appearance, and with little change in the symptoms, she died on the second day after admission.

On *post mortem* examination, no lesion worthy of record was discernible in the brain or cord, or their membranes, on the closest inspection.

In elucidation of the pathological condition under which this child laboured, the following facts are of the highest importance. The family were apparently in usual health until about four weeks previously, when a brother, aged about 10, became the subject of typhus fever. He was admitted to the Hardwicke Hospital, where he made a good recovery. While in hospital he was visited by a sister, aged about 14, who contracted the disease, and was admitted to hospital; and in a week subsequently another sister, aged 8, was brought into the same ward. Both these children developed well-marked ordinary maculated typhus fever, with a certain amount of the minute purpuric spotting so frequently observable in the cases of typhus amongst the poor and ill-fed classes in Ireland. They both exhibited low symptoms; were for some days in danger, but ultimately made good recoveries, and lay convalescing in the same ward, and close to the little sister, aged 4, whose case is above narrated. A child in arms, four months old, was stated by the mother to have exhibited febrile symptoms with some purpuric spots, but made a good recovery.

Dr. Lyons regards the first case cited in this notice as an example of pure and uncomplicated cerebro-spinal meningitis; and the second case as one of blood-poisoning, irritating the spinal cord by secondary contamination, and points to those cases, as further evidence of his already expressed and well-known views as to the dual character of the diseases often associated together under the undistinguishing term of cerebro-spinal arachnitis.

THE ADELAIDE HOSPITAL, DUBLIN.

CEREBRAL MISCHIEF LEFT AFTER SUNSTROKE: BENEFICIAL EFFECT OF MERCURY.

(Under the care of Dr. JAMES LITTLE.)

J. M., AGED 28, a ship steward, came to the Adelaide Hospital, on February 6th, this year, complaining of great pain and a general feeling of something wrong in the right side of his head. When admitted, he was so impatient for relief, and apparently confused by laudanum which he had taken freely, that it was impossible to get a clear account of the symptoms; but the next morning, they were ascertained to be the following:—Pain in the right side of the head, principally referred to the parietal and occipital regions, constantly present to some extent, but becoming intense each evening about ten, when there were frequently recurring darting pains occupying the same situation, and also shooting through the ball of the right eye towards the back of the head, and completely preventing sleep; numbness and imperfect sensation in the right side of the face; inability to chew properly in the right side of the mouth; imperfect sense both of touch and taste in the right half of the tongue. He could not read for any length of time without the right eye becoming fatigued and weeping; there was also constantly a haze before it. He was very thirsty; the tongue was loaded, but this he himself attributed to the opium he had taken. His memory was bad, but otherwise his mental powers were unimpaired.

History.—In February 1866, he got a sunstroke in South America, was unconscious for sixteen hours, and had for a fortnight afterwards intense pain in the head, vomiting, thirst, loss of sight, and of power over the bladder and lower limbs. He was bled from the arm twice with the effect of relieving the headache. He returned to Southampton at once, and was for some time in the hospital there. In March he was able to come on to Dublin, but continued to suffer from thirst, vomiting, headache similar to that he now has, defective memory, a feeling of cramp and difficulty in moving his feet, and inability to hold his water for more than half an hour. Under treatment, these symptoms so far subsided, that he rejoined his ship in May. He returned to Dublin in December, and remained at home till February 1867, still troubled, more or less, with all the symptoms. From February to September, he was employed in one of the Mediterranean steamers, failing memory, thirst, and weakness being the only indications of ill-health which remained. In September he came back to Dublin, intending to sail again in October; but before the time came, without any known cause, the pain returned to his head, and had gradually got worse up to the present time. He said he had taken iodide of potassium, arsenic, and opium. He had never had syphilis, but had drank pretty freely. He was well nourished, but rather pale.

Dr. Little pointed out that a careful inquiry into the symptoms enabled us to connect the majority of them with the fifth nerve. The hyperæsthesia of the eye pointed to a lesion affecting the ophthalmic division; the difficulty in chewing with that side of the mouth to the inferior maxillary nerve, the motor nerve of the great muscles of mastication; the deficiency both of common and special sense in the tongue to its gustatory branch; while the pain in the eyeball and side of the head, and the numbness, were evidences of the various sensory portions of the nerve suffering. The thirst was likewise, in all probability, a neurosis; it differed from febrile thirst in the absence of quick pulse and hot skin, and still more in the fact that the water quickly passed off by the kidneys, instead of being retained in the system as liquids are during pyrexia. The question of the nature of the lesion remained. Its persistence, and the failing memory which accompanied it, no less than the history of the case, inclined Dr. Little to think it had originally been inflammatory, and that the symptoms were kept up by the presence of the exudation then poured out. Before having recourse to the remedy to the use of which this conclusion would lead, it was determined to try the effect of local sedatives and quinine. After he had taken an aperient, quinine in twenty-grain doses was given two hours before the paroxysmal pain. On the evenings following the first two doses, there was some mitigation of pain; but on the night of February 14th he suffered extremely, though he had taken thirty grains of quinine, in divided doses, during the day. The hypodermic injection of morphia, had recourse to during the severe attacks, always gave temporary relief. On the 17th, the pain (though the evening exacerbation was hardly so marked) was, on the whole, little less than on admission. He was then directed to take three grains of blue pill thrice daily, and to have the hypodermic injections if suffering acutely. After March 2nd, the gums not showing any sign of the action of the medicine, a drachm of mercurial ointment was daily rubbed into the axillæ, in addition to the pills. A week afterwards the gums became sore. Up to this time, there had been no alleviation of the pain; but, from the day this occurred, he had no severe suffering. On the 18th, he was discharged, feeling only a little stiffness about the jaw. The thirst, however, and the impaired memory, persisted. He was recommended to take the iodide of potassium for three weeks. On October 1st, he came to the hospital to show himself. He had been to the Mediterranean, and was then serving in a cross-channel steamer. He was still thirsty; and his memory, though it had not got worse, had not got better; but of the other symptoms he had not had any return. The sense of touch and taste in the right side of the tongue, the strength of the right eye, and the force of movement in the right jaw, were equal to those on the opposite side.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

EXCISION OF ELBOW: CYST IN THE AXILLA.

(Under the care of Mr. Collis.)

Mr. Collis lately operated in the following cases.

I. *Excision of the Elbow.*—Mrs. M., aged 20, was attacked with acute synovitis after parturition. The inflammation ran on into the suppurative stage, and Mr. Collis, who then saw the patient, was anxious to lay the joint freely open, after the manner of Mr. Gay. In this he was overruled, and drainage was tried with temporary benefit. After a few weeks the tubes seemed to cause special irritation, and had to be withdrawn. The patient's strength began to fail; hectic set in, and, to save life, Mr. Collis operated on the 23rd of October. He made a single vertical incision at the back of the joint; and, keeping close to the bone, laid bare and removed the articular ends of the radius and ulna, and two successive slices of the humerus, the first showing some softness of the surface, with the gouge, forceps, and scissors; he further removed all diseased structures, whether osseous, periosteal, or synovial. There was much genuine pulpy thickening of the synovial membrane, with softening of the bone where contiguous to it. The cartilages were not much affected; they were eroded in one spot and another, but generally healthy and adherent. Mr. Collis pointed this out as an example of the mode in which disease, beginning in the synovial membrane, may extend to the bone. One or two superficial vessels were twisted, and the wound was wiped out with carbolic oil. The margins were brought together by means of wire sutures, passed rather deeper than usual, the surface being allowed to glaze for some hours before they were tightened. The limb was placed on a rectangular splint with pads covered with gutta-percha paper. It was not moved for a fortnight, the parts being daily sponged and cleaned with carbolic glycerine and water. In less than three weeks the patient was sitting up; the wound was nearly healed, and with every promise of a successful termination.

II. *Removal of large Cystic growth from the Axilla.*—A child, aged $2\frac{1}{2}$ years, was brought to hospital, suffering from a large tumour of six months' standing in the left axilla. It was of the size of a large orange; it had been twice punctured, clear fluid escaping on the first occasion, and sanious on the second. Pressure had prevented increase and diminished pain. The tumour was imperfectly fluctuating, covered with blue veins. The child was pale, but in good condition and wonderfully intelligent. The tumour was removed through an incision along the base of the axilla. It was a dense congeries of small cysts, but it did not appear clearly in what structure they had originated. They seemed not connected directly with the glandular contents of the axilla, but still were spread entirely through it, and far up under the pectoral muscle, from whence they were with difficulty dislodged. The child bore the operation well, chloroform being judiciously given by Mr. Wharton in the absence of Professor Macnamara. The case is doing well.

REVIEWS AND NOTICES.

The Medical Profession and its Educational and Licensing Bodies. By E. D. Mapother, M.D., Queen's University, Professor of Anatomy and Physiology, Royal College of Surgeons, etc. Dublin, Fannin and Co.; London, Longmans.

Medical Education and Medical Interests. By Isaac Ashe, A.B., M.B., C.M., T.C.D. Fannin and Longman. 1868.

In these two Carmichael Prize Essays are discussed, with great ability and earnestness, many of the propositions touching medical education and medical interests which are most frequently discussed in our Association and in this Journal. Dr. Mapother intimates, in his preface, that his book is constructed to give to legislators and those choosing a calling correct views of the medical profession. For, according to the conditions of the testator's will, a copy of each essay is sent to all Cabinet ministers and members of the Privy Council in both countries. Happily, then, the views which the authors entertain, and which have found favour with the judges, are of the most liberal and progressive character. Thus, both authors discuss with earnestness the propriety of the direct representation of the profession in the Medical Council, as urged at the Dublin meeting of this Association, and subsequently at the Oxford meeting; and they solve the question in the same sense that our Association has decided. They deplore with us the competition of examining bodies; and Dr. Mapother urges that a compulsory state examination is the only remedy to alter the present chaotic state of the profession. Mr. Ashe has an ingenious plan for the "fixed endowment of corporations", by making a common fund of students fees.

Other subjects which our authors consider are—the separation of drug-selling from the practice of medicine; the various and inconvenient modes of election to hospitals; the difficulties of education arising from the multiplicity of schools; the defects of preliminary education; the necessity of more practical examinations for licenses. On all these subjects, both Dr. Mapother and Mr. Ashe are outspoken; and earnestly advocate reforms which will, we think, be in consonance with the views of most of our readers; and which, at any rate, are in general accord with those which we have thought it our duty to uphold. All who are interested in the critical review of the present position of the profession in the three kingdoms should read these interesting essays. We earnestly hope that they may help in realising the reforms which they shadow out.

The essays are written entirely in the spirit in which the generous and high minded donor conceived the bequest which calls them forth. To analyse them fully, as was our original intention when they issued from the press, would occupy space which it becomes every day more difficult to set aside. And it is from fear of further delay, and in the desire opportunely to attract the attention of our readers, that we put forward the recommendation to study these essays, in order the more fully to ascertain the state of professional interests, and to use the opportunity to advance them which a general election offers.

NOTES ON BOOKS.

Dr. James Stannus Hughes adds to the literature of climate some *Short Notes on Nice* (C. Cooper, Lincoln Place, Dublin), which give, in brief and practical form, precisely the information which the medical practitioner needs for his own guidance in making a choice, and for the direction of his patient in suitable cases.

Mr. Barnard Holt, in his third edition of the *Immediate Treatment of Stricture of the Urethra* (Churchill, London), is able to quote the results of 670 cases, in which the immediate treatment by his stricture-dilator has proved successful to a degree which is quite unprecedented in the history of surgery. The essential feature of this method of treatment is, that it ruptures the constricting submucoid areolar tissue without injuring the canal. This has been proved by dissections of Miller of Edinburgh and McDonnell of Dublin. In other hands, as those of Macnamara of Dublin and the surgeons already named, Holt's instrument has been as successful as in those of the inventor. In Paris, also, it is being extensively used by M. Voillemier and others; and we learn, from trustworthy sources, that the results are in the highest degree satisfactory.

A Manual of the Pathology and Treatment of Ulcers and Cutaneous Diseases of the Lower Limbs, by JOHN KENT SPENDER, M.B.Lond., Surgeon to the Mineral Water Hospital, Bath, etc., is an exceedingly readable and well written treatise on a subject which is always one of great interest in practical surgery. The author reasons well, and practises with evident skill and success. We fail to find any novelty in the plan of treating varicose ulcers by brushing them with a solution of nitrate of silver, dressing them with zinc ointment, and bandaging them with firm but equal pressure. It is a practice of venerable antiquity, but admirably successful. The whole pathology and therapeutics of ulcer of the leg are discussed here with plentiful ability and with honest plainness.

What should we Drink? By JAMES L. DENMAN. London: Longmans, 1868. No one is better qualified than Mr. Denman to discuss the whole question of the source, modes of manufacture, and trade history of wines. To medical men, the subject is one of especial interest; inasmuch as alcoholic drinks enter largely into the prescriptions of physicians. We have here, then, a full history of the wines of France and Germany; the sherry, which is brandied; the port-wine, which is treated with elder-wine and spirit; the Cette wines; the fabricated Hamburg wines; and the secret history of many of the highest priced wines of Spain and Portugal. The mysteries of "baga", "geropiga", and Prussian potato-spirit, so largely imported into Spain and France, are fully set forth. The Greek wines are praised as the most full-bodied, the most varied in flavour and in quality of all real and natural wines. No wines are better deserving of the attention of the medical practitioner; they have rapidly sprung into a deservedly high repute. The chapters which refer to them in Mr. Denman's useful and interesting little book are particularly worth reading.

NEW INVENTIONS, &c.,

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

VENTILATION OF ROOMS AND WARDS.

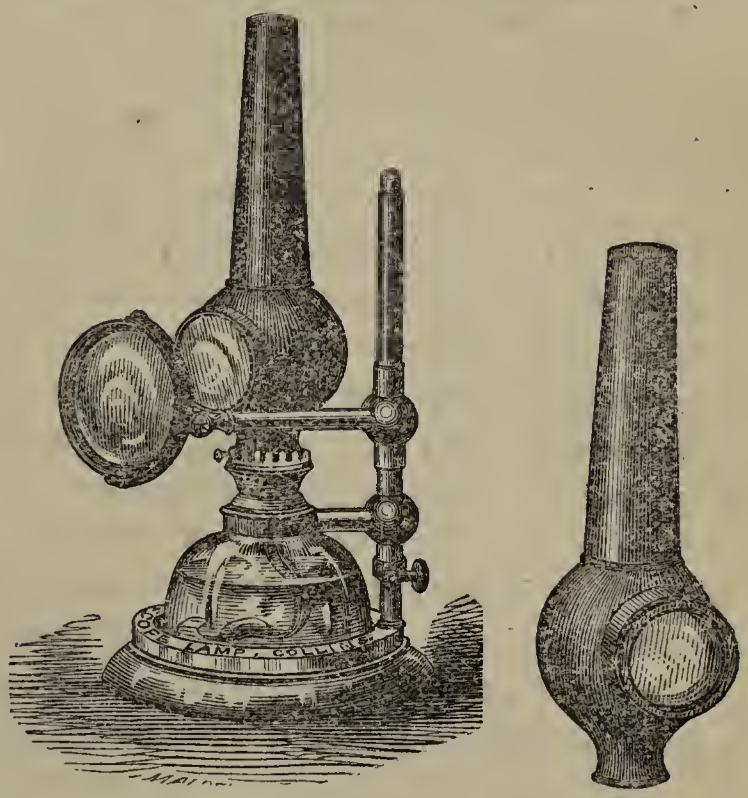
MR. WILLIAM POTTS describes, in a pamphlet issued by Simpkin, Marshall, and Co., a system of ventilation by the use of two distinct passages in the cornice, the one for the escape of the hot, the other for the admission of the fresh, air. It appears to us very practical, useful, and comparatively inexpensive.

THE MINERAL WATERS OF VALS.

THE bulk of the profession are not, we believe, well acquainted with the qualities of these valuable alkaline waters. The Magdeleine of Vals is remarkable not only for the remarkable proportion of the bicarbonates which it contains, but for its large proportion of fixed carbonic acid and its proportion of iron. It is not only an extremely efficacious and agreeable water, whenever such waters are desirable for calculous, rheumatic, or intestinal disorders, but it may fairly claim to be considered an alterative tonic. The combination of alkalies with iron in an effervescent mineral water, is precisely that which the practical physician most often seeks, and for which he most often finds an use. It has made the reputation of the famous waters of Vichy; but in many important respects the waters of Vals may claim a superiority; for they are more powerful as alkaline waters, more highly charged with gas, and therefore more palatable, and have the advantage of containing iron, and therefore of helping to enrich the blood. There are five springs of importance; and the waters, while possessing much in common, have special features. The water of the Rigoletti contains the largest proportion of the iron; and the waters of the Dominique, described by the analysis of Ossian Henry as containing a sensible amount of arseniate of iron, have a special reputation in old intermittent fevers, chronic skin affections, and the like. The typical water is that of the Magdeleine; it was especially a favourable water with the late Dr. Brinton, and is now largely prescribed by physicians in London. These waters are capable of rendering considerable service in practical medicine, and we fulfil a duty in calling attention to them. The waters we have had the opportunity of using have been obtained from E. Gallois and Co., 27, Margaret Street, Regent Street, London.

COLLINS'S FIDDIAN METALLIC CHIMNEY.

COLLINS'S Fiddian Metallic Chimney, for the purposes of bright illumination for the Laryngoscope, Ophthalmoscope, and Microscope, is a very convenient and useful addition to any lamp. With the Bockett Lamp of the same maker, it affords a brilliant and concentrated flame, whilst all extraneous light is shut off. Its shape and use may be easily seen from the annexed drawings. It is manufactured by Mr. Collins, 77, Great Titchfield Street, London, W.



CLINICAL THERMOMETERS.

HARVEY and REYNOLDS, Briggate, Leeds, are furnishing to physicians and public institutions short clinical thermometers with mercurial index, devised by Dr. Clifford Allbutt and by Dr. Edwyn Andrew, which are highly convenient, and are, indeed, almost essential now for the accurate interpretation and just treatment of disease. They are supplying also excellently prepared chart-forms for registering the periodic changes of temperature in cases; and we strongly recommend our readers to possess themselves of one of these useful and highly interesting adjuncts to clinical study and practice. They ought especially to be in universal use in the wards of every hospital. The diagnostic indications of temperature are already important; they need to be further studied on a large scale, and by numerous observers, supplied with accurate instruments.

AN EXPLOSIVE DYE.—Mr. William Crookes, F.R.S., makes the following contribution to a discussion now going on relative to deleterious dyes:—"Within the last few years, manufacturers have adopted the plan of saturating picric acid with an alkali before using it, and it is not improbable that wool so dyed, and then imperfectly washed, may have produced some of the effects complained of. If this turns out to be the true explanation, manufacturers may feel interested in knowing that, by the use of this alkaline compound of picric acid, they run the risk of not only poisoning their customers, but also of blowing themselves up, as it is almost as explosive as nitro-glycerine, and has already destroyed one factory, with loss of several lives. Should the dye retain this character in the fabric, the wearers of these socks would be able to vary the excitement they are now indulging in in a highly sensational manner." [Unfortunately for the theory, both picric acid and even picrate of an alkali, when used as a dye, cease to be explosive. They are smothered in fibre, and are in the same condition as Mr. Gale's gunpowder, which is buried in sand.]

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 24TH, 1868.

"JUSTICE TO IRELAND."

THERE are few phrases which we hear more frequently now-a-days, and few which are more misunderstood, than that prefixed to these remarks. In our last number, we took occasion to inform the profession that arrangements were in progress to extend the influence and circulation of this JOURNAL in Ireland; and we are now happy to say that these arrangements are in a great measure complete, and that henceforth, as Britain comprises England and Scotland, and as Scotland anciently meant the Green Isle, of which North Britain was understood to form part, and from which it derived its present name, so we shall regard the medical profession in the United Kingdom as one, and we shall give our best efforts towards furnishing our readers with such a *bonâ fide* representation of Irish medical talent and influence, as shall secure for this JOURNAL the character of being British and Irish, of being national in the true spirit of the British constitution.

The present is a peculiarly fit time for the movement which we this day inaugurate, because of the absence of any weekly medical journal printed in Ireland; and we beg to assure our readers that, as there is now no weekly paper professing to be solely Irish, we shall venture to supply this want by occupying the existing vacancy on United-Kingdom principles. Justice to Ireland demands that, as Ireland is an integral part of the kingdom, it should be treated as such. We shall adopt this principle from the political world, and apply it to medicine.

We may repeat now what we said in our last number, that members of the British Medical Association will enjoy, without additional charge, the advantage of reading a journal which shall represent the enlightened medical opinion and practice of Great Britain and Ireland; and we shall publish valuable papers and reports; Society proceedings and Poor-law intelligence; news and leading articles—all having special reference to Ireland; and to all shall be ensured the largest possible circulation among the many thousands of our profession.

Let such of our members, then, as favour this movement, do what they can to secure for us a large addition to our ranks in Ireland, where we already number a large body of members and subscribers. Every one can do something in this way. Further, we ask the continued support of the able and eminent contributors in Ireland, who have kindly promised to second our efforts by furnishing us with the results of their experience and reading.

POOR-LAW MEDICAL REFORM.

AMONG the great questions to which our Association is about to address itself, and which are at this moment rapidly ripening for action, is the question of Poor-law Medical Reform. The history of this agitation is long and troubled. The indefatigable exertions of Mr. Griffin of Weymouth, of Dr. Fowler, and of Dr. Rogers, of Mr. Lord, Dr. Webster, and others with whose names we are imperfectly acquainted, succeeded long since in attracting parliamentary attention to the insufficient and unequal remuneration of Poor-law medical officers throughout England, to the uncertainty of their tenure of office, to the unjust and disadvantageous terms on which they furnished medicines to the pauper sick, and to the absence of any sufficiently instructed and efficient power at the Poor-law Board to comprehend the necessities, to sympathise with the difficulties, and to ameliorate the hardships, of the Poor-law Medical Service. Mr. Griffin was unwearied through a long series of years in the exposition of these wrongs, and of the consequent injustice to medical officers and hardships to the poor. Nor were the efforts of himself and his coadjutors by any means unsuccessful. The recommendation of the Select Committee of the House of Commons that every medical officer should be appointed for life, and the recommendation that the more costly drugs should be supplied by the guardians, were among the most valuable of the results. Both of those recommendations have been carried out to some considerable extent, but still only partially; and at present a very large number of medical officers are without this protection, especially among the outdoor medical officers. In addition, however, to the palpable advantages which were secured by the unremitting efforts of these veteran Poor-law reformers, another less palpable and direct, but still a sure though slow means of success, was attained. Public and professional opinion was enlightened and formed. The public mind was prepared for subsequent impressions. The startling revelations of the reports printed in the *Lancet* as to the metropolis, and subsequently of those issued both in that and in this JOURNAL as to the defective arrangements for sick paupers in the metropolis, brought strongly into relief the hardships of the Poor-law medical officers, as was the intention of those who made those reports, and who subsequently acted upon the legislature and upon the public mind through the medium of the Workhouse Infirmaries Association. Once more, the necessity for permanence of medical appointments, for securing to medical officers a supply of drugs independent of their expenditure, for obtaining for them sympathetic and skilled officers of their own profession with whom to communicate in the Central Board, and a remuneration adequate to their onerous duties, was earnestly and urgently enforced. The justice of these demands was repeatedly discussed and admitted, and recent legislation bears the impress of the conviction thus enforced. The Metropolitan Poor Act, and the Act extending its provisions to the country, deal, however, but partially with that important aspect of Poor-law reform. The medical officers of the metropolis are placed in a somewhat better position than our brethren in the country. The arrangements for supplying drugs are being carried out in London with great activity; the medical officers have received a larger amount of assistance in their professional duties; they are more readily listened to; in many instances, their remuneration has been improved. Throughout the country, also, extensive changes are being made, and in most instances of a character to improve the position of the medical officers. A medical element has been infused into the Poor-law Board, but still to a very insufficient degree, and on a footing which is not yet satisfactory. A very powerful feeling, however, has been created in favour of ameliorating the position of the medical officers; and the time is extremely opportune for making it avail.

Our Association, containing as it does a very large proportion of Poor-law medical officers, and aiming at elevating the position of the profession in all its parts and as a whole, cannot fail to exercise a powerful influence in aiding the settlement of this question. At the meeting of the Association at Oxford, a Committee, including representative names in Ireland, Scotland, and England, was appointed, whose business it will be forthwith to communicate with the Associations immediately representing the Poor-law medical officers of Great Britain and Ireland, and to ascertain what are the immediate points which, in the opinion of these Associations, it is expedient to urge upon the Legislature and upon the Government. The Council of the English Poor-law Medical Officers' Association intimate in their recently issued report, to be read at the meeting on Tuesday next, that they shall for the present urge devotion of any efforts to the attainment of two principal objects—viz., permanence of appointment, and adequate remuneration. The first is, we apprehend, entirely within reach. The second most desirable object is more complicated and less defined, and will obviously require much conference and continued effort. The Irish Poor-law medical officers will obviously claim our support for their efforts to obtain a right to superannuation pension. The recent cruel case of Dr. Suffield will afford a strong, almost an unanswerable, argument. It is inconceivable that so bitter an end to long, oppressive, and faithful services to the state, should not touch the heart of the nation, if the tale be told in the right place and at the right time. The development of the reforms required in the Poor-law Medical Service will be one of the most congenial and useful labours of the British Medical Association, and one in which it may gladly join hands with any and all special organisations having the like objects.

SIR DOMINIC CORRIGAN, BART.

THE most prominent topic in medical circles in Dublin at present, is the approaching candidature of Sir Dominic Corrigan for the representation of the city. Were the question to be decided at this important crisis any other than that of the Irish Church, we should have little doubt of his return, so popular is he with the general public, as he is also with the profession. In any case he will be certain to carry with him large and influential support, even from political opponents; and could he feel disposed to do as Mr. Pim did, on the occasion of his election as M.P. for Dublin—decline to take any side in the question—it is thought that there would be little, if any, doubt of his success.

To many medical men, however, Sir Dominic's election as M.P. for the Irish metropolis would be a cause of great rejoicing. No city under heaven suffers more from the want of such a representative than Dublin does; and whether he voted for disestablishment or not, we are quite certain that he would vote for making the Corporation of Dublin mind their business; that he would worry them into cleansing the river Liffey, and, so far as he could, he would agitate for what Dublin does not possess, notwithstanding enormous waste of money and high taxation—a plentiful supply of pure water. From a medical point of view, then—for we do not look at this question from the standpoint of party politics—we should rejoice if the Irish metropolis had the advantage of being represented in the Imperial Legislature by so able a debater as Sir Dominic. It is passing strange that men of his class are not now and then made members of Her Majesty's most honourable Privy Council.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

WE last week announced that the Council of the College of Surgeons had resolved, by a handsome majority, to make public the confirmed minutes of their proceedings. This is, in principle, a resolution of which we have so often urged the propriety that we need say no more than to congratulate the Council on adopting a policy which will, we feel sure, tend to increase the popularity of the College, and to consolidate its hold on the profession at large; while it cannot, so far as we can foresee, be attended with any bad results. This resolution is, so to speak, the offspring of that which was moved by Mr. H. Spencer Smith at a previous court, which proposed to sanction the inspection of the minutes of the Council by any Fellow or Member, three days after the meeting of the Council. To that resolution, which was seconded by Mr. Charles Hawkins, a large number of the Council expressed their assent in principle; but special objections were well urged, on the ground of the alleged inconvenience of divulging formally the unconfirmed minutes of the Council, liable, as they necessarily are, to subsequent alteration. To meet this objection, Mr. Hancock moved, subsequent to the rejection of Mr. Smith's motion, that the confirmed minutes be prepared for publication, subject to the power of the President and Vice-Presidents to withhold any matter which they might, for collegiate and public reasons, deem it inexpedient to publish. This motion Mr. Smith seconded. In the course of the discussion, however, the obvious disadvantages were pointed out of postponing for five weeks the official publication of matters which are always unofficially immediately made known, with more or less of accuracy; and Professor Humphry proposed an alteration of Mr. Hancock's motion, which practically reduced it to the form of Mr. Smith's original proposition. This was only lost by two votes. We feel well satisfied that the principle has been adopted; and we have little or no doubt that it will ultimately be found more convenient to avoid the long interval of five weeks, during which unofficial, and necessarily imperfect, reports will be furnished by the journals as heretofore.

Notice of another important motion was given by Mr. Charles Hawkins. It was that, in the records of divisions, names and numbers should be taken down. This open and manly policy was, we are glad to learn, welcomed by very many in the Council. Altogether, we congratulate the College and the profession on the liberal and straightforward character of the policy now inaugurated; and trust that it may inaugurate an era of increased usefulness and prosperity to this respected institution.

MR. ALDERMAN GREENOUGH, of St. Helens, has offered £1000 towards the erection of an Infirmary in that town.

SERMONS were preached at the several places of worship in Walsall, on Sunday the 11th instant, in aid of the funds of the Cottage Hospital there, and produced £65:9:2.

DR. WILLIAM HENRY THORNTON has been appointed to the Commission of the Peace for the recently enfranchised borough of Dewsbury, where he has been in practice upwards of fifteen years. Dr. Thornton is a graduate of the University of London.

THE *Athenæum* states that Dr. Bryden, who has been for some years engaged on the military and medical statistics of India, concludes, from the data already collected, that it is possible to predict the outbreak and march of a visitation of cholera, as of an eclipse or an occultation. A book on this subject may shortly be expected from the doctor's pen.

THE NEW NORTH STAFFORDSHIRE INFIRMARY BAZAAR at Stoke was a decided success, and yielded during the five days £3511. The expences are estimated at £500, leaving £3000 clear. To this may be added a donation of £500 by Mr. R. Heath, leaving only £500 to be obtained to clear the deficit in the building fund, in which no difficulty is anticipated; and the new building will thus be opened free of debt. It will be completed about the end of the year, and be ready for the reception of patients by the spring. There will be no alteration in the medical staff.

A HOSPITAL FOR INCURABLES is to be founded in Oxford at a probable cost of £50,000. The scheme originated in a gentleman placing, for that purpose, £1000 in the hands of Miss Sandford of Oxford; and that lady has obtained the co-operation of an influential provisional council in raising the necessary funds. His Grace the Duke of Northumberland has been appointed President, and the Lord Bishop of Oxford Visitor, the latter being also a member of the council *ex officio.*

WE are informed that Dr. Pidduck has resigned the office of Physician to the Bloomsbury Dispensary. This is one of the infirmaries where the services of medical officers receive a pecuniary recognition. We believe the *honorarium* is £105 *per annum*; so that there is likely to be some competition for the office.

THE Treasurer of the Bolton Infirmary and Dispensary has received £1000 from the Mansion House Lancashire Relief Committee.

RADCLIFFE INFIRMARY, OXFORD.

IT appears by the report of the Committee of Management that the finances of the Infirmary will not allow of the present number of in-patients. It is, therefore, to be proposed at the next quarterly meeting to close part of the building till further notice.

FEVER IN CEYLON.

THE epidemic, to which we lately alluded, still continues, but to a less extent. All seem to agree that the type of disease is exceptional, exhibiting severity even at high altitudes, where fever has hitherto been comparatively rare. Many attribute at least the aggravation of the epidemic to the insufficiency of rain, which leaves the decaying matter unwashed away, and to the practice among the natives of eating jack and other unripe and uncooked fruits.

C.B. AND B.C.

THE public services enjoy a monopoly of two letters which convey each a special distinction, according as they are placed. Neither can be conferred without the sanction of the highest authority; but the honourable significance of C.B. is somewhat marred by the unpleasant associations of that other distinction of B.C., which courts-martial of late have been somewhat prone to inflict. The gracious missive which confers the C.B. befits the source of all honour from which it issues. The instrument which brands the letters B.C. on the flesh of the young soldier is a fit emblem of that last relic of imperfect and barbarous legislation, the court-martial. Why, in times of peace, should courts so ill-constituted be entrusted with a power not given to our judges, and which, indeed, their feelings of humanity would never allow them to use? A recent court-martial sentenced a man to be dismissed from the service, imprisoned for twelve months, and branded B.C. He had embezzled £2 : 9. He had previously borne a good character for fifteen years, during ten of which he had been a non-commissioned officer. A pretended economy results from the use of the branding-iron: it prevents incorrigibly bad characters from re-enlisting. But there can be little question that it is a poor economy which gains a small end by an useless enormity; and that the wiser and more humane course is to aid the soldier, by educating and elevating influences, to free himself from temptations to vice, rather than to visit civil offences in the ranks of the army with a barbarous mediæval punishment, long since banished from our courts, which degrades the man and the service.

AN HONOURABLE CAREER IN MEDICAL LITERATURE.

A VERY interesting incident marked the opening meeting of the present session of the Medical Society of London on Monday last. Mr. J. F. Clarke, the much regarded veteran of the medical press of England, took then an opportunity of intimating that he had retired—abruptly, it is understood—from his connexion with the medical paper over whose infancy he had watched, and in whose management he had nearly from the commencement taken a leading part. Forty years of honourable and blameless service in a position so important and so influential could hardly pass without some fitting commemoration—could hardly be allowed to be extinguished silently and in a studiedly imposed obscurity. They have been stirring times for the medical profession; and, through the many contests which he has waged on behalf of the profession with autocratic power and obstinate nepotism; in the many combats through which he has passed, enduring often attacks which should have been aimed at more highly placed men, who were content to shield themselves behind him, Mr. J. F. Clarke has borne himself manfully and well. There are few men, if any, more widely known, more personally liked, in the metropolis; outside of it, there are perhaps not so many who know the varied ability, the gallant bearing, and the generous character of the warm-hearted, versatile, and accomplished lieutenant of the late Mr. Wakley, who now hangs his banner on the wall, and retires from the fray, conscious of a long and good fight, in which he has struck many a blow for the liberties of the profession. With him closes the book of traditions of which he and the late Mr. Wakley were almost the sole repositories. We expect to have the pleasure of presenting, from time to time, some of his curious reminiscences of professional life and literature during the last thirty or forty years. At any rate, they will be published in some form; for Mr. Clarke retires from his active literary pursuits, we are glad to say, vigorous in mind and body, highly prosperous, respected, and still busily engaged in professional avocations. This passing but cordial tribute to his long and influential career of usefulness is a tribute in which we feel sure that many hundreds will heartily join.

THE WOUNDED AT THE LATE BOILER-EXPLOSION IN THE HAYMARKET.

THE late boiler-explosion has, happily, as yet not proved fatal to any of the sufferers. When taken to Charing Cross Hospital, they received all attention from Mr. Canton, under whose care they were admitted, and from Mr. Turner, the house-surgeon, who kindly gave us the following particulars respecting them. Mr. Hancock, who was in the hospital at the time, rendered what help he could. Ellen Leonard, the scullery maid, was admitted insensible, in which state she remained until the following day. She had received three very severe and extensive wounds in the scalp, the face also being disfigured by two deep cuts and numerous abrasions. The left eye is so much swollen, that it is impossible to say whether the eyeball is destroyed or not. She is also severely scalded in the neck and shoulder, and on Thursday evening was in a most precarious state. Emily Luttmin, the kitchen-maid, is doing well. She was much scalded on the back, neck, right side of the face, and the right arm and leg. The right arm was also fractured. Robert Humm, the plate-cleaner, had recovered so far as to be able to leave the hospital on Wednesday. He received two slight scalp-wounds, an incised wound of the left arm, and was also bruised on the back. There were, in addition, five others more or less injured; but the cases were not of sufficient importance to be admitted into hospital. They were, therefore, treated as out-patients, and are doing well.

THE GOVERNMENT SCHOOLS OF FRANCE.

THE Minister of Public Instruction last year charged M. Vernois with the mission of inspecting the *lyceums* of the empire in respect to their hygienic condition, and of reporting to him on their salubrity. The principal parts of this report have just been published, and are summed up by *L'Union Médicale.* The report is of great interest. The number of *lycées* in France is seventy-eight. The number of resident pupils is 17,722; with the outdoor pupils entrusted to the universities, it exceeds 30,000. The number of resident officials exceeds 3,196. As to situation, eighteen are shut in, four are "particularly humid", seven in a hole. As to isolation, seventeen are over water-courses and rivers; twelve near a barrack; eleven near a hospital; three near a large manufactory; fourteen under special conditions of insalubrity, such as being built over subterranean sewers, cesspools, or cemeteries. As many as thirty-three of the *lycées* are overcrowded. The infirmaries are generally well served, but not always well arranged. As a rule, however, the lads in these establishments are, in M. Vernois' opinion, less liable to attacks of such epidemics as cholera, typhus, etc., than those in private schools; for, on the whole, they are better looked after. The report terminates with a recommendation for extensive and sweeping reforms, such as the enlargement of the buildings of thirty-two of the schools; the total reconstruction of eleven; the remodelling of thirty-nine infirmaries; the formation of bathing-rooms in ten, and the remodelling of those which exist in ten others; the increase of closets in twenty-one schools, and of the warming apparatus in forty-three others. In short, with every desire to make things agreeable, and while using everywhere the most gentle and honeyed words and abundant reservations, M. Vernois' report indicates extensive and wide-spread deficiencies, which call for active intervention, and which are among the manifest evils of an excessively centralised system of schools.

THE MAURITIUS EPIDEMIC.

WE are happy to say that, although the epidemic still continues, it shows signs of diminution in every district of the island. There are very few fresh cases, but relapses are still taking place, causing considerable mortality. Disgusted by the continued mismanagement of the authorities, a number of the inhabitants of Port Louis have permanently left the town to live in a more healthy part of the island. A portion of the press still persists in advocating the tolerance of the "inodore" companies who pretend to disinfect the excreta carried in carts throughout the town at all times during the day. The Duke of Buckingham's despatch, which was able, and with a few unimportant facts, correct in detail, was hopefully received by the intelligent part of the community, and some earnest movement has followed. A report upon this despatch has been prepared, and adopted by the General Board of Health, and we hope soon to see some active measures follow. The Drainage Commission has moved the Government to order a block contour survey of Port Louis prior to a thorough system of drainage carried out, which is imperative. The General Board is also to have an engineer of its own, which will lead to good results if a proper person be appointed. Altogether there are hopeful signs yet of radical means being undertaken to rid the island of the dreadful pestilence which has decimated its population. The constant bickering which has been going on will continue more or less until sweeping reform is made in the constitution of the governing bodies; but we are confident that, notwithstanding this, if the inhabitants would only make one united effort, during the lull of the epidemic, to enforce proper measures to combat the disease, their labours would be crowned with, at least, considerable success.

OUR NINETEENTH CENTURY HABITS AND HEALTH.

WHAT are the influences in this century of the most prevalent of our customs, habits, and morals on the health of the community? Dr. Druitt, in his president's address this week to the metropolitan officers of health, commented on this text in words of pith and value. If certain persons, he observed, were admitted to the House of Commons, we can imagine bills introduced against tight-lacing, naked shoulders, and thin shoes, just as some clamour for an Act against wet-nursing. But warmth is only one function of clothing, and attractiveness and ornamentation are the more powerful; so head and feet and trunk will alternately suffer while sanitarians rave in vain. As regards child-bearing, there are some curious facts not generally known to which Dr. Druitt referred. Amongst them is the unfavourable influence of the marriages of immature and ignorant persons on the health of their offspring. For proof we must turn to the mines of facts constantly accumulating in the reports of the Registrar-General, and in the writings of such medical statists as Dr. W. Farr and Dr. Matthews Duncan. From these we learn the great and disproportionate mortality of women prematurely impregnated, and that the mortality of over-young husbands is on as extravagant a scale as that of their wives. As for the offspring of such marriages, the general law, according to the Registrar-General, is, that in the counties which are the most ignorant they marry in the largest proportions under 21 years of age, and lose the largest numbers of their children. Discussing the subject of feasting and fasting, he expressed the belief that a discipline involving some periodical restriction either in the quantity or choice of food, would be productive of the best moral effects. Certainly the moral effect would be prodigious if working men in good health could be trained to go without beer one day in the week. Intemperance is one of our greatest curses; but where is temperance taught? But with an Anglo-Saxon population, the greater the need for such teaching the less likely are they to submit to it. They glory in eating and drinking as national virtues, and would soon find moral and religious grounds for not fasting. As for technical fasting, that is satisfying the appetite with sufficient quantity, but excluding food of certain quality, such as flesh meat; it promotes a most interesting branch of cookery in the preparation of *meagre* dishes made savoury by vegetables; and it would be a national boon if this mode of cookery were encouraged. Abstinence from fermented liquors alone would be most effective and desirable. But when fasting consists in the denial to a not overfed body of the *quantities* necessary for work and nutrition, it must be condemned without hesitation as unfit for this climate, and for persons who must work and not merely indulge in contemplation. He knew many excellent religious persons whose forenoons at certain seasons are passed in the greatest discomfort, and he believed that the result is bad for health and temper; whilst all the good of a discipline in self-denial may be obtained with benefit to both.

THE FUTURE WATER-SUPPLY OF LONDON.

THE inhabitants of the small town of Portmadoc, Wales, propose to supply themselves with water from a lake five miles distant from their town. They have had the water analysed by Dr. Charles A. Cameron of Dublin, who reports very favourably upon it. As London may in some future period be supplied with water from the lakes of Wales, a degree of interest attaches to the composition of the water-supplies of the Principality, and we therefore publish Dr. Cameron's analysis, of which we have been favoured with a copy.

"*Composition of Water from a lake near Portmadoc.*

"Specific gravity, 1000.18; colourless. No peculiar odour or flavour. A very faint acid reaction. Degree of hardness=1.25. No suspended matters. No deposits after standing for twenty-four hours. One imperial gallon (70,000 grains) contains: Lime, .382 grain; magnesia, .221; potash, .240; soda, .180; peroxide of iron, .042; silica, .041; sulphuric acid, .290; chlorine, .480; nitrates and ammonia, faint trace of organic matter (including organic nitrogen, .068 part per 1,000,000 parts of water, .501. Total solids, 2.405."

This water is one of the purest ever examined in these countries.

THE JOURNAL OF THE ROYAL MICROSCOPICAL SOCIETY.

THE Council of the Royal Microscopical Society announces to its Fellows that they have concluded arrangements with Mr. Hardwicke of Piccadilly, the publisher for the Ray Society and for the Pathological Society, for the exclusive publication of their Transactions and Proceedings in a Monthly Journal, to be edited by Dr. Lawson, and to contain, in addition to the matter furnished by the Society, an important record of British and Foreign Histological Research.

ASSOCIATION BRANCH MEETINGS.

THE meeting of the Shropshire Ethical Branch promises to be an occasion of much interest. It will be observed by the notice under the head of Association Intelligence, that the meeting is fixed for Tuesday, Oct. 27th, at one o'clock. Various eminent associates have accepted invitations to the meeting and the subsequent dinner. The subjects set down for discussion are—Remuneration for Medical Attendance upon the Members of Sick Clubs and Benefit Societies; Vaccination Fees; Medical Charges; and Representation of the Profession in the Medical Council. A full attendance may be anticipated; and a spirited expression of opinion will, it is hoped, be evoked upon these important topics of professional concern.—Considerable interest also attaches to the approaching meeting of the highly important and influential branch of the Association at Bath and Bristol. The report of the Committee of this Branch on Courts of Professional Arbitration, for purposes of appeal and pacification, will be looked for by many with anxiety. It may possibly prove a starting point for an important movement in that direction. One great object of our Association is, to consolidate the members of the profession in harmonious and brotherly good-will; and the substitution, by general consent, of professional arbitration for public quarrels, or even litigation, is a great step in that direction. On the other hand, it will, of course, be necessary to guard against creating technical tribunals, which may be too easily appealed to in cases of frivolous difference, or the multiplication of invidious discussions and personal contests, which too easy access to any tribunal is sometimes supposed to favour. There are in that Branch some of the calmest and best balanced minds in the profession, and it may well be expected that a careful and well debated scheme may be produced, well worthy of the consideration of other parts of our federal society.

THE PATHOLOGICAL SOCIETY.

THE Society held its first meeting for the session on Tuesday; Mr. Simon, F.R.S., President, in the chair. The attendance was very large. Mr. Simon, in a few brief opening remarks, on behalf of the Council, welcomed the members, refreshed, he hoped, by a pleasant interval of idleness. He trusted that the ensuing session would be as prolific of valuable knowledge as the sessions preceding it. He had great pleasure in presenting the members with a volume of *Transactions*, not inferior certainly, perhaps superior, to any previously brought out, enriched as it was by the admirable report of the Committee on Morbid Growths. Among numerous interesting specimens brought before the notice of the Society during the evening were—by Dr. Burdon Sanderson, suprarenal capsules from a case of Addison's disease, in which during life there was entire absence of uric acid in the urine; by Dr. Murchison, a case of vitiligoidea, with enlargement of liver; and by Mr. Sydney Jones, large enchondroma of the scapula removed by operation.

JOHN GOODSIR.

WE may signalise to our readers, as a literary incident from which none can fail to derive pleasure, the publication of the *Anatomical Memoirs* of John Goodsir of Edinburgh. The famous anatomist and able teacher is worthily exhumed in these volumes. The memoir, by Dr. Lonsdale, of Goodsir, his labours, his contemporaries, and his career, is full of touches of vivid interest, and admirably summarises his life and work, while it affords choice glimpses of his friends and the spirit of his epoch in the Modern Athens. Besides his well-known but little accessible contributions to science, previously published in various periodicals and transactions, these volumes contain articles on the Dignity and Biological History of Man, on Life and Organisation, with others more strictly technical, as on the Mechanism of the Joints, which have never before been published, and which will claim a multitude of readers. Messrs. Adam and Charles Black have done themselves and their city honour by the handsome form in which they have produced this memorial of the life and labours of a man of whom the University of Edinburgh must always be proud.

THE ANTI-VACCINATION QUESTION IN BRIGHTON.

THE *Brighton Times* continued to teem with letters on the subject of Vaccination until October 17th, when it was closed. Dr. Stephens deserves great praise for his public spiritedness, and the trouble he has taken in acting as the champion of vaccination. The trouble was, however, we think, worthy of bigger game. As it was, the correspondence, had it led to nothing else, drew out from the anti-vaccinators, who were most completely shut up, some of the most comical pieces of bad composition and ignorance we have yet seen, showing well the stuff they are made of. Were it not for the very low language interspersed throughout some of their letters, and especially that of the man Stowell, we would recommend the perusal of the correspondence. As it is, we regret that the *Brighton Times* has admitted into its columns a correspondence on a subject which can do no good, and which cannot be settled in a public paper. By allowing promiscuous communications from the anti-vaccinators to appear, it gives the confiding public the very erroneous idea that anti-vaccinators have a leg to stand upon, and increases the difficulty experienced in removing the ignorance of the uneducated lower classes against vaccination.

LOCAL SANITARY MUSEUM.

THE *Journal of the Society of Arts* states that a sanitary museum, forming a department of the Town Museum, is just on the point of being opened at Brighton. The museum is principally due to the efforts of Mr. W. E. Nourse, surgeon of that place, who has been kindly aided by Mr. Thomas Twining, a Vice-President of the Society of Arts. The articles already arranged afford instruction as to the building of cottages and model lodging-houses; also as to fittings and materials for the same. In the food-class, numerous diagrams are nearly ready, and many instructive samples are shown. In the sanitary class, a number of interesting diagrams are displayed, besides ventilators, contrivances to prevent accidents, etc. Mr. Nourse, whose address is 11, Marlborough Place, Brighton, would be glad to receive from inventors and others specimens or diagrams of objects suitable for exhibition; and, in an interesting report which he has recently laid before the Committee of the Brighton Sanitary Association, he asks for the aid of all interested in such matters in procuring specimens for this useful museum.

IRELAND.

A RELIC FROM CAWNPORE.

SURGEON-MAJOR CLARKE, 84th Regiment, has just presented to the Museum of the College of Surgeons, Dublin, the skeleton of Jowallah Pursand, one of the most notorious of the high-class Brahmins connected with the massacre of Cawnpore. The museum is very rich in ethnological specimens.

NO GYMNASIUM.

IT is surprising that there has been no public gymnasium in Dublin, but some of those who lately visited the admirable gymnasia at Oxford and Birmingham, have resolved to imitate these establishments, and two medical schools have already fitted up small ones.

MEDICINE FORGOTTEN.

HIS GRACE THE DUKE OF ABERCORN, in his address last week to the graduates of the Queen's University, was scarcely just to medicine. After describing what was needed to gain university honours, he said:—

> "The elements which go towards that combination of energy, perseverance, and talent—a combination necessary for a successful result in a hard fought academic career—are precisely the qualities from which in after life may arise a distinguished statesman, a learned lawyer, a deep-read theologian—even, I may say, a glorious and successful soldier. . . . . The youth being father to the man, may one day be found eminent in their country's service, may wield the thunders of the senate, or direct its legal or theological destinies."

THE DUBLIN SCHOOLS.

THE dissecting-rooms of each of the six Dublin schools are more largely attended than at the corresponding period last year. The Introductory Addresses will be delivered in the following order:—College of Surgeons, Monday 26th, at one o'clock, by Professor Hargrave; Trinity College, Monday, November 2nd; Ledwich School, same day, by Dr. Barton; Carmichael School and Steevens' School, same day; and at the Catholic University School on Wednesday, the 4th, by Professor Lyons.

DUBLIN UNIVERSITY ELECTION.

WE understand that Antony Traill, Esq., LL.D., Fellow of Trinity College, will be a candidate for one of the seats in Parliament. As a zealous student in medicine for some years, he will receive the support of such members of our profession as are electors. The University having helped many lawyers in this way to the bench, will now probably feel the advantage of having a more permanent and earnest advocate in the House.

THE BROTHERHOOD OF ST. LUKE.

THE *Irish Churchman* of the 17th instant devotes a leading article to this subject, and advocates a religious mission among the numerous medical students of Dublin. Among other recommendations, it urges the following on students and members of our profession: "To keep a strict guard over the eyes, hands, and thoughts, especially in the discharge of professional duties; to be especially careful not to laugh at anything impure which may be said, and, moreover, to show our displeasure either by leaving the society of those who do so speak, or in some other way; to treat reverently the dead body, which may have been a member of Christ."

PROFESSORSHIP OF BOTANY IN THE UNIVERSITY OF DUBLIN.

THIS professorship, vacant by the resignation of Dr. Dickson, will be filled up in December. The electors are the Provost and Senior Fellows of Trinity College, Dublin; and the emoluments of the office amount to £200 a-year. The School of Physic Amendment Act of 1867 abolished the clinical duties formerly annexed to this professorship. The Professor need not have any degree or medical qualification.

MEDICAL ASSOCIATION OF THE COLLEGE OF PHYSICIANS OF IRELAND.

THE annual general meeting for election of council and officers for the session 1868-69, was held at the College, Kildare Street, Dublin, on Wednesday evening the 21st instant. Tea and coffee were served in the library at 8 P.M., after which the members assembled in the Convocation House. The Honorary Secretary read the minutes, and a report of the proceedings of the last session. The ballot for twelve members of Council followed; Dr. Grattan Guinness was chosen Honorary Secretary; and the Society adjourned to the third Wednesday in November.

DUBLIN MEDICAL SOCIETIES.

THE Pathological, Surgical, and Obstetric Societies will not commence their meetings until after the 25th of November.

SCHOOL OF PHYSIC, TRINITY COLLEGE.

THE lectures will commence on the first Monday in November. Those in the Institutes of Medicine and of Materia Medica will be deferred to the summer session under the provisions of the School of Physic Amendment Act of 1867.

SIR PATRICK DUN'S HOSPITAL, DUBLIN.

DR. MOORE, the recently elected King's Professor of the Practice of Medicine on the foundation of Sir Patrick Dun, will do duty as Clinical Professor at Sir Patrick Dun's Hospital during the first three months of the winter session.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

SUNDAY, the 18th instant, being St. Luke's day, the annual meeting of the President and Fellows was held on the following day (Monday). The following officers were elected for the ensuing year:—President—Dr. Churchill. Vice-President—Dr. Freke. Censors—Drs. Foot, Little, Atthill, and Freke. Treasurer—Dr. Dwyer. Registrar—Dr. Guinness. Honorary Librarian—T. W. Belcher. Librarian on Sir Patrick Dun's Foundation—H. J. Fennell. Representative on General Medical Council—Aquilla Smith. Professor of Medical Jurisprudence—Robert Travers. Examiners in Midwifery—Dr. Johnston; Dr. Jennings. Agent to Trust Estate—R. U. Roberts. The following gentlemen were elected Fellows:—Dr. S. L. Hardy; Dr. C. F. Perceval; Dr. F. Churchill, jun. The following gentlemen were elected Honorary Fellows:—Dr. John M. Minter, Deputy Inspector-General of Hospitals and Fleets, and Dr. Maxwell Simpson.

HYGIENE OF CEMETERIES.

THE action by the War Office against the Committee of the Golden Bridge Cemetery, on account of alleged injury to health of the inmates of Richmond barracks, came before the Privy Council on Monday. A large number of counsel and medical and scientific witnesses were arranged on both sides, but, as it was stated that a compromise was probable, the inquiry was postponed.

REGIUS PROFESSORSHIP OF SURGERY, DUBLIN.

THE patent establishing a Regius Professorship of Surgery in the University of Dublin, and nominating Dr. R. Adams as first Professor, has just been received. The surgical profession has reason to be much gratified by the selection. We understand that the Provost and Board of the University were induced to seek this honour for surgery mainly by the representations of the Medical Registrar, Professor Haughton.

FORMATION OF A GLOUCESTERSHIRE BRANCH.

AT a meeting held on Thursday, October 22nd, at Gloucester, it was proposed by Dr. Evans, seconded by Dr. Blagden, and carried unanimously, that a Gloucestershire Branch of the British Medical Association be formed.

MEDICAL STUDENTS.

FROM a return which has just been made for the Government Inspector of Anatomical Schools, it appears that there is a considerable increase in the number of gentlemen now pursuing their professional studies at the eleven recognised Metropolitan hospitals. The increase is greater than has been known since 1860, the *annus mirabilis* of the medical schools, when there was a rush of students who entered the profession in order to escape the operations of regulations about to be enforced, requiring all students to undergo a preliminary examination in Arts, etc., before commencing their professional studies. Since the above year there has been a gradual diminution in the number of entries; and in 1863 one school was closed altogether; last October there was, however, a slight increase, and from the returns just completed for the present session it appears that the total number at all the London hospitals, who have been admitted to registration, amount to 1,178, including 410 first year's men, or new entries. Guy's Hospital still takes the lead, where there are 296 pupils, including 88 registered fresh-men; at St. Bartholomew's 221, 77 being new; University College 173, 65 being new; at King's College the numbers are 118 and 41; the London Hospital 83 and 37; St. Mary's 65 and 19; St. George's 57 and 23; Charing Cross, 53 and 20; St. Thomas's, 51 and 23; the Middlesex Hospital, 39 and 14; and the Westminster, 22 and 5.

It appears that the greatest number of pupils were registered in 1860, when they amounted to 1,228, including 483 first year's men; the preceding year there were only 954. The return from the English provincial schools has not yet been compiled, but it is stated that the new entries in them, and also in Ireland, are satisfactory. As the Scotch session does not commence until November, it is impossible to ascertain at present what the number attending the northern schools will be. The number of qualified members of the medical profession in Great Britain has been shown, by the elaborate returns prepared and published by this JOURNAL, decidedly diminished during the past few years; but this is due more to the openings for young medical men in India, the Colonies, the Government and private emigration offices, and the Peninsular, Oriental, and other public services including, of course, a large number for the army and navy,—than from any dearth in the supply of medical students, since with over eleven hundred gentlemen pursuing their professional studies in this metropolis alone, the vacancies in the profession must be rapidly filled up.

THE UNIVERSITIES OF EDINBURGH AND ST. ANDREW'S.

AT the meeting of Dr. Richardson's Election Committee, on Thursday last, the following resolution was passed unanimously:—"The committee, having come to the conclusion that Dr. Richardson's return cannot, on this occasion, be secured, recommends with Dr. Richardson's concurrence, his retirement from the present contest."

Dr. Richardson's retirement is understood to be entirely neutral. In announcing it, we think it right to notice the fact that this unsuccessful Medical candidature was based on broad professional grounds, and that every expense has been borne by the supporters of Dr. Richardson, a circumstance honourable, we think, to both parties.

HECKSTALL SMITH TESTIMONIAL FUND.

THE following list of subscriptions spontaneously offered as the commencement of the fund, is forwarded to us for publication by John M. Burton, Esq., Lee Park Lodge, Lee, S.E., the Honorary Treasurer of the fund.

	£	s.		£	s.
John F. South, Esq.	1	1	J. H. Grimshaw, Esq.	1	1
Dr. Carr	1	1	Dr. F. J. Brown	1	1
John M. Burton, Esq.	1	1	Wm. Adams, Esq.	1	1
Dr. Monkton	1	1	Dr. Armstrong	1	1
J. S. Burton, Esq.	1	1	J. H. Armstrong, Esq.	1	1
J. S. Sams, Esq.	1	1	Dr. Allfrey	1	1
C. J. Pinching, Esq.	1	1	A. Napper, Esq.	1	1
Dr. Martin	1	1	Dr. B. W. Richardson	1	1
E. Bell, Esq.	1	1	Ernest Hart, Esq.	1	1
Dr. Hollman	1	1			

ABSTRACTS OF

INTRODUCTORY ADDRESSES

DELIVERED AT

THE METROPOLITAN AND PROVINCIAL SCHOOLS,

On OCTOBER 1st, 1868.

LEEDS SCHOOL OF MEDICINE.

Mr. W. Hall delivered the Introductory Address.

After congratulating the students and the profession generally on the fact that in a very short time the magnificent new hospital would be thrown open, and referring to the distinguished medical men—Mr. George Morley, Mr. W. Price, Mr. S. Smith, and Mr. T. P. Teale—who had been lost to Leeds during the last year, made some remarks on the history of medicine, which he stated was almost identical with the history of man himself. As man emerged from the mists of antiquity with wants so simple, that, compared with our own, he seems to have needed scarcely more than our animals to ensure his comfort, so must the medical art, at its birth, have been appropriately rude and simple. But the relief of pain, once obtained, is too great a boon to be easily forgotten, and this, no doubt, led to the first appreciation of the medical art, and happy would it have been for the profession had this object been kept strictly in view, until the advancement of the collateral sciences, by extending our knowledge, had enabled us to meet the probabilities of disease with greater certainty. Man, however, must at an early period have been struck with the apparently manifest dealings of Providence in the unequal gifts of health and longevity, and have come to the conclusion that disease was a mark of Divine vengeance; the more especially as he was led to believe by those of his fellows who had some spiritual ascendancy that his was a God of vengeance, not a God of mercy; still further when his own senses daily informed him that disease followed swiftly in the track of folly. Once committed to the mysterious, speculation naturally succeeded, and the foundation was laid of that false deductive philosophy, which, for ages, crippled medicine with its chains. But all the theories and notions on which this philosophy was constructed had now been swept away. From the most conservative of the professions, theirs had become the most radical—not in a political sense, of course. From a blind reverence for the venerable traditions of the past they had actually arrived at a philosophic incredulity even about the present. Faith had gone, works were the only passport to belief. They had changed from speculation to observation, from inference to consequence. They rose from facts to principles; not, as before, from principles to facts. After some further remarks, Mr. Hall continued: When you have passed through your student's career, and have reached the practice of your calling, how may you expect to find it? What has it done? and What is it doing for the good of mankind? and what personal benefit may you expect from it? It has been said that nature and disease are engaged in personal combat with each other, and that medicine is a blind man armed with a club, who, stepping in to settle the dispute, lays about him right and left; if he hit disease it is fortunate, if nature the reverse. This, I trust, is no longer applicable. Is it not rather that nature is a city, besieged by disease, and that medicine, her faithful ally, is endeavouring, with all his power, either to raise the siege or to furnish such supplies as shall enable her to hold out until the attacking force is withdrawn? If therapeutics has not advanced in an equal ratio with diagnosis, we have at all events thrown overboard much useless rubbish. It is said that the first step towards knowledge is to become aware of your own ignorance, and we certainly have not spared ourselves in this respect. We have bid good-bye to heroic remedies, nay, in many cases, by a masterly inaction, we save, where others, more pretentious, would destroy; for, as was said by one of our most profound thinkers, "Take from us every drug we possess, and we are still powerful for good." For example, how many cases of heart disease have we saved from an untimely end, by attention to the laws of hydraulics, until the embarrassed organ has had time to regain its composure and its power? How many cases of acute kidney diseases have we cured, by regard to the compensating function of the skin? How often, taking the poor maniac by the hand, do we lead him gently through his dark affliction to the precious light of reason? Regarding the employment of drugs the public thinks indeed we ought to obtain a specific for every disease; but this royal road to health we do not at present possess, and probably never shall, though we are certainly much more able than we were to appreciate the tendencies of disease towards a favourable or an unfavourable termination, and to promote them in the former, to avert them in the latter case. By the aid of chemistry we have eliminated the active principles from many of our drugs, and can rely with greater certainty upon their action; whilst, by injecting some of them beneath the skin, we escape the disturbing power of digestion, and obtain not only more precise, powerful, and immediate, but even entirely new effect. Upon pain, that powerful outpost, if not the key, of the position held by disease, we have made a most energetic onslaught, generally by chloroform, locally by the refrigerator, generally and locally by the subcutaneous injection of narcotics. There is no doubt that in the vast field of organic chemistry still unexplored new remedies await us, and as we become more intimately acquainted with the exact molecular changes which are constantly progressing in the waste and repairs of the body, we may hope that we shall be furnished with the means of so modifying those changes that we can restore with much greater certainty and power the balance overthrown by disease. But were medicine to do no further good to the human family, it could fairly lay claim to perpetual gratitude for past services. Time fails me to dwell upon the numerous ways in which medicine has earned the gratitude of mankind, but I would point especially to vaccination, which, within the last century, has saved more lives than war has destroyed in the same period. Indeed, it is computed that vaccination alone has added no less than three years to the life of man. But it is to hygienic medicine that we may justly look for our brightest jewel. In what other profession, indeed, will you see men so energetically striving to prevent the occurrence of that very thing whose presence gives them their daily occupation. It is only by repeated and unwearied assaults on our part that public opinion is fairly carried by storm, and that the mortality tables are now being watched with keen interest, and no wonder, when it has again and again been proved that one-half of our population is hurried to an untimely grave by disease which we have shown can be prevented. What a magnificent field, even for our statesmen; and how trifling do some of their aims appear, when compared with so grand an object as the prevention of wholesale disease and death. Why do not the labouring classes clamour for a clean bill of health instead of such things as the ballot? Gentlemen, you will soon be our fellow-citizens in the great commonwealth of medicine—come to us in the spirit of self-negation, for though there is no calling in which industry will not meet with a safer competence, still, if you would be conscientiously happy, you must aim beyond that. Forgetting the things behind, you must press forward to higher personal excellence; and then, as you descend the river of life your sympathies will widen with the stream, and without becoming too materialistic you will learn to pity where once you might have condemned the erring ones whose physical conformation betokens moral degradation. You will love mercy; and when at last you reach the great deep of death, may you receive a merciful recompense from Him who has said He will remember even a cup of cold water given to a suffering brother in His name.

MANCHESTER ROYAL SCHOOL OF MEDICINE.

The Introductory Address was delivered by Dr. Simpson.

The lecturer, after a few opening remarks, observed:—Medical education covers so wide a field—the differences of opinion among men long engaged in teaching are so great, that I feel no inclination to pronounce judgment *ex cathedrâ* on the system at present in vogue. Some think that attendance on lectures should be compulsory, others that it should be optional; some consider the number of lectures too few; others would have them reduced, while a third party would do away with them altogether. While merely giving my own opinion that lectures and reading may, and ought to be, each the complement of the other, and that the former should be as far as possible illustrative and demonstrative, I would say that the practical conclusion at which, as students, you should arrive is this—to do just what is required by the examining boards. The only way, gentlemen, to attack the work before you successfully, is to do it with method. Calculate the amount to be done and the time you have for it; then divide and arrange it in the way that seems best. Do not work without a definite plan—if you do, you will often find that the time goes in discussing with yourself *what* you shall do, instead of doing *anything* at all. And when your scheme of work is carefully thought out, keep to it rigidly. It will give you a vigor and directness in your work which you will find of great value. But do not err by attempting too much;—you must pay due regard to your health and recreation, and I assume that your recreations will be such as conduce to health. The truest enjoyment and the best results as regards health will be found in athletic exercises, used in moderation, and out-door amusements, and they will be the best counterpoises to hard reading, dissecting, and hospital practice. Taste and inclination will lead you to choose variously, and the only caution needed is, not to allow what is intended as a relief and a rest from mental toil, to become an ingrossing pursuit, and supplant what it should only supplement. Your heads will be clearer and your brows cooler the day after a game of cricket, an eight-mile walk, or a pull even on the pellucid Manchester waters, than after a night at a crowded theatre, or whist till three in the morning; and one or two hours a-day spent in active exercise will not count against you at the close of your student-career. Steady, persevering, regular work will before long begin to tell, and week by week your task will become more manageable. But this satisfactory progress can only be made by systematic, methodical application, involving much self-denial It is not to be gained by spasmodic efforts of close reading, alternated by periods of simple indolence or feverish dissipation. None of you will ever regret a day of pleasure given up for one of honest work; but it is possible that some may lament the converse. What has just been said of the need for self-denying perseverance is applicable to the majority among you; but some of you, endowed, or suppose to be endowed, with abilities above the average, may affect to despise such common-place suggestions. You may be under the impression that you can live hard, and read hard, and may indulge in fancy pictures of yourselves, with the traditional wet towel about your heads, looking, by the light of the midnight lamp, like a halo round the brow, making up for lost time by what you would call a "vigorous spurt." The tortoise and the hare, with the result reversed, will occur to your minds; but it is unsafe for any of you to suppose that your mental powers are greater than those of your neighbours. You may have formed an erroneous and partial estimate, and the result may be discreditable failure. But if these gifts be yours—if, in spite of idleness, dissipation, and damaged health, you succeed in obtaining the legal qualifications to practise, you will ever have the consciousness of rich gifts too little valued—of great powers thrown away. No spectacle is so sad, or so contemptible, as a wasted life. It is a grievous thing to see one with brilliant talents, well fitted to aid in solving the many unsolved problems still before us, sink down to mediocrity, or lower still, and to know that careless over-confidence, an absence of high aims and moral tone, have lost to the world results of unknown value, and that names which might have stood high in the ranks of science will pass away unhonoured and unknown. Brilliant powers, however, are not required for honourable and useful life. Most great works are the result of the plodding, persevering industry of men more intent on the subject they were toiling at than on the talents they were using. And in your own special calling the chances are in favour of the energetic, earnest student, of fair average ability, rather than of the brilliant genius who thinks he can evolve from his inner consciousness all the hard facts he will need for his examinations. Nothing is so safe, or so likely to lead to success, as genuine honest work. You may see proofs of it every day. It is not long since I heard one of the most deservedly successful men in our profession—Sir William Jenner, to whose teaching and example I gratefully look back—attribute the whole of his good fortune, as some would call it, to steady, honest work. The keener the intellect, the more to be deplored if it remain a "waste product," and the greater the responsibility of its possessor. If you aim at success in life, remember that the game is played with the lives of your fellow-men. None of you will be too learned, too wise, for the calling you have chosen, for, next to one other, it is the noblest a man can follow. You are here for a definite purpose, to learn so much of your profession as will enable you to bear the application of certain tests. It will be for your interests therefore to ascertain precisely what you have to do, and then to allow nothing to persuade you to turn aside, under any pretext whatever, until your object is accomplished. After giving an outline of the manner and spirit in which the student should pursue his studies, the lecturer continued:—And now, gentlemen, is it worth your while to enter a profession where the preparation is so difficult? And when these difficulties are overcome, is the life of a medical man one that you can look forward to with satisfaction and contentment? Are the prizes our profession offers sufficient to lure you on? Are you ready to spend your days in active toil of mind and body, and when night comes, and you are taking the rest so fairly earned, are you ready to greet with a benison the remorseless night-bell? Does the prospect of a speedy fortune tempt you? Do you suppose that, with average success, ten or fifteen years of hard work will enable you to spend the rest of your days in learned leisure? Weigh well the disadvantages of a medical life, and if you have not a strong and enduring love for your calling, leave it before it is too late. Looked at as a mere business—as a mere instrument for making money, to be thrown aside when its purpose is served—it is scarcely worth consideration. Of course, in the Metropolis and a few of our largest towns, fortunes are made, but they are rare and exceptional; and the man of average success can look for little more than a comfortable or indeed a frugal competence. And this must be accomplished by din of much exertion, much anxiety, and the tracing of some lines of care. The mere money-getter can make no greater mistake than to enter the medical profession, for though now become trite, it is no less true, that while ours is a noble profession, it is a bad trade. Carried on in the mere spirit of a trade, and rendered subservient to the making of money alone, it is robbed of all its higher and more generous characteristics, and debased into an instrument ill-fitted, after all, for so mean a purpose. In his search for gold, the mammon-worshipper becomes as insensible to the claims of science, as to those of humanity, and must do constant violence to both. There is a distinction between the reward of thoughtful and earnest efforts for the benefit of your patient—for the labourer is worthy of his hire—and the extortionate trading on the sufferings of your fellow-men, which will be felt by all but the most sordid of minds. On the other hand, there are some advantages your calling will have over others. If you can scarcely hope to become rich, you are the less likely to be reminded that riches have wings, as these times of commercial gambling and dishonesty have so frequently proved. You will have less risk indeed than the legitimate trader, and, with fair industry and good conduct, may reasonably look for a moderate income. Then, too, the pursuits in which you will be engaged are in themselves of the highest interest, and worthy to be the life's work of any man. If entered upon from right motives, and with an earnest endeavour to relieve pain and save life, they will bring with them a reward over and beyond any money returns you may receive. And the whole tenour of your pursuits will tend to foster a taste for scientific culture, which will ever suggest new topics for thought and investigation. You will never be at a loss for occupation and amusement in your hours of leisure, and the more serious pursuit of science has often been attempted with success by active members of our profession. Unless, therefore, you have a strong love for our profession, let me advise you to quit it before it be too late, and not to engage in a calling for which you have not the requisite gifts. If, on the other hand, you feel the attraction for it too strong to resist, we give you a hearty welcome. Let nothing deter you from following it, and you will find that you will love it more the longer you live, and will never regret having cast in your lot among us. To you, gentlemen, about to leave us, I would say, Do not consider that your medical education is now at an end. Keep up the habit of study. Think not that your student-days are over. They must remain with you to the journey's end. While waiting, as most have to wait, for the full occupation of your time, render yourselves as proficient as you can in the various modes of research that modern science brings forward. Strive not to be left behind. Seek to pursue the science of medicine with wider aims than when you were tied down, however judiciously, by a fixed curriculum. You will now read monographs rather than *vade mecums* and systematic manuals. Do not confine yourself to those of to-day, but read some of the older writers likewise, lest you fall into the error of supposing that nothing was known of medicine before your own time. You will see how closely and diligently the old writers observed the facts before them—the same then as now—and how shrewd and accurate they were so long as they refrained from wandering into the regions of speculation. Brought as you must be into the inner recesses of family life, into close and intimate relations with your patients, when the veil of conventional reserve is drawn aside—having laid before you secrets of mind and body, painful, humiliating, and hidden from every other—seeing much of the weakness, much of the folly and vice, much, too, of the strength and nobleness, of human nature—if you would make your calling a blessing, and not a curse, you must have a soul of unsullied honour and purity, without a stain. You must foster a charity and a tenderness to deal gently with the weak, and must have firmness to control the wayward. Deal with them all in a kindly, honest spirit, knowing that a fictitious sympathy is just as hateful as a cynical disdain. And you must never forget that, as to all that passes in the secresy of professional converse, a seal is on your lips. You must take care, too, lest familiarity with suffering blunt your sensibility and render you callous to pain and sorrow. Anæsthetics have now happily disarmed the great operations of surgery of much of their terror; but you will often be called upon to do what will give pain, either mental or bodily, and, if need be, must not shrink from it. I need scarcely say that, if unofficially, you must, as private citizens, be ready to help forward and encourage the movements now going on for the promotion of the public health; for the medical profession has always taken a prominent place in efforts for the general good. In your relations with members of your own profession, be open and truthful, and let the guide of your conduct be that simple rule of ethics whose authority you will not gainsay, and which tells you to "do to others as you would they should do to you." If, gentlemen, this rule always regulated our conduct, we should have fewer professional jealousies. The slighting remark, the damning with faint praise, are equally to be despised with the false and malignant slander; and the man who attacks his brother practitioner's fair fame usually finds that he has descended into the mire to his own injury rather than his neighbour's. Seek to obtain success by deserving it. Seek to do so by untiring industry in your calling, by striving to obtain the knowledge which, used loyally for the relief of suffering and the saving of life, will enable you, with the blessing of Him without whom we can do nothing, to carry hope and healing to the sick, and comfort to the dying; to fulfil with cheerful heart your purpose in life; and which will gain for you the respect and affection of those amidst whom you live. And that you may first deserve, and then obtain, more than the success you look for, is my earnest wish for you all!

SOCIAL SCIENCE ASSOCIATION.

HEALTH SECTION.

Birmingham Meeting, August 1868.

PRESIDENT, DR. RUMSEY.

DISCUSSION AND MEDICAL CHARITIES (*continued*).

Miss **GARRETT**, L.S.A., read a paper, entitled "Suggestions for Increasing the Educational Usefulness of Out-door Medical Charities." The change suggested was, that to each physician and surgeon four or more assistants should be appointed from the senior students; that the patients should be divided between the assistants, and first be seen by them; but that the physician and surgeon should constantly overlook and cross-examine the assistants, and should approve the treatment adopted in all cases of a serious or uncommon character. How such a plan as this could be carried out was a question of detail. An essentially similar system had been working for years in the medical schools of Germany, and had worked well.

Dr. **MONCKTON** of Rugeley advocated the establishment of Provident Dispensaries, as equitable and convenient, although liable to abuse, especially in large towns. He gave a sketch of the rules which he thought most suitable, and recommended the establishment of a village hospita lin connexion therewith.

Dr. **HORACE DOBELL** read a paper suggesting changes in the Principles of Admission to Hospitals, likely to become necessary in consequence of the Poor-law dispensaries and infirmaries.

Dr. **PERCY LESLIE** read a paper on Gratuitous Medical Labour, in which he characterised the system carried out in our hospitals as baneful and deceptive. He urged the adoption of the principle of remuneration, and the extension of a provident system to the large institutions of towns and cities.

Dr. **OGLE** of Derby read a paper on the same subject.

Dr. **HAWKSLEY** read a paper on the Police of Charity, suggesting the appointment of a Committee for each hospital, whose business it should be to prevent abuse of the charity.—In the discussion which followed, Dr. **ALDIS** thought the English labourer was too independent to go to a dispensary while he could pay.—Dr. A. P. **STEWART** differed from that opinion. He spoke warmly of the abuse of the hospital system. He could not agree with Miss Garrett's suggestion to let the senior students try their prentice hands on the out-patients.—Mr. **GAMGEE** said that, between the privileged and the free system, compromise was the remedy. Cases sent by the subscribers, not suitable for admission, were at the Queen's Hospital rejected; and every serious case was admitted, whether recommended or not. He admitted the excess of patients over the power of the staff in most hospitals. Let them take the Children's Hospital. There the children were seen at the rate of seventy an hour, including the taking off of the little things' clothes. With such a state of things, where was observation, where was inquiry, where was judicial award? The sooner such a state of things was remedied, the better for infantile life, the better for the community, the better for the medical profession. At the Queen's Hospital, he saw his patients at the rate of eighty an hour; and it was the only way he could get through.—Mr. **FURNEAUX JORDAN** said that the most serious cases were always most readily admitted into hospitals, whether privileged or free. Paupers ought not to be admitted to voluntary hospitals.—Mr. **WEST** thought no medical man should be placed in the invidious position of having to send back a subscriber's ticket because he did not regard it as a fit case for hospital relief.—The **PRESIDENT** closed the discussion. He observed that some speakers had considered that a line could be drawn between the two classes—those who were poor, and those who were not. He (the President) had never yet been convinced that any distinct line could be drawn; and he could not help thinking that the Irish system of dispensaries met the great difficulty at once, by classing into one great system all that was done by way of medical relief out of hospitals. If any system of giving medical aid to the poor was to succeed, it must be a system based upon mutual assurance. Now, in all the plans brought before them that day, he had not heard the slightest approach to that. The provident system, as it had been put before them that day, was not a provident system, but mainly a charitable system, under the guise of the provident or self-supporting system. The most important question that had been raised was that of the privilege as against freedom in the admission of patients. His own opinion was that, to a certain extent, the privileges of those who contributed to the support of the patients should be limited. The President also expressed himself in favour of an inquiry into the condition and history of the patients. He thought Miss Garrett had proved her point respecting the practical employment of the senior students; though perhaps she was not aware that, in some of the large hospitals, the senior students did perform those duties now. He believed it would be better to let it creep on in this way than to make a special department. Referring to what had been said by Mr. Godwin, the President said that hospital construction, like hospital management, must be brought under something like supervision. Some of his friends seemed to be much afraid of government supervision, but he thought this was groundless. Such supervision would lead to the publication of results; and when hospitals could compare themselves with other institutions, they would do more to effect improvements than would otherwise be the case. The President also spoke favourably of cottage hospitals.

The Section adjourned without passing any resolution.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

THE Committee of Council will meet at the Queen's Hotel, Birmingham, on Wednesday, the 28th of October, 1868, at 1 o'clock precisely. T. WATKIN WILLIAMS, F.R.C.S., *General Secretary.*

13, Newhall Street, Birmingham, October 6th, 1868.

SHROPSHIRE ETHICAL BRANCH.

THE annual general meeting of the above Branch will be held at the Lion Hotel, Shrewsbury, on Tuesday, October 27th, at 1.30 P.M.; W. J. CLEMENT, Esq., M.P., President, in the Chair.

The following subjects will be discussed.—Remuneration for medical attendance upon the members of sick clubs and benefit societies; vaccination fees; medical charges; representation of the profession in the Medical Council.

The dinner (at which the President of the Council and other eminent Associates will be present as guests) will be served punctually at 4 P.M., for the convenience of country members.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate their intention, at their earliest convenience, to

JUKES STYRAP, } *Hon. Secs.*
EDWYN ANDREW, }

SHROPSHIRE SCIENTIFIC BRANCH.

THE annual meeting of the above Branch will be held in the Natural History and Antiquarian Society's Museum, Shrewsbury, on Wednesday, October 28th, at 2.30 P.M.—President for 1867-8, WILLIAM NEWMAN, M.D., Stamford; President-elect for 1868-9, SAMUEL WOOD, F.S.A., Shrewsbury.

Gentlemen intending to read papers or cases, are requested to communicate with the Honorary Secretary.

The dinner will take place at 5 o'clock. Members can introduce friends. SAMUEL WOOD, F.R.C.S., *Hon. Sec.*

BATH AND BRISTOL BRANCH.

THE first meeting of the session will be held at the Royal Hotel, Bristol, on Thursday evening, October 29th, at 7 P.M.; R. N. STONE, Esq., President.

The Report of the Special Committee on Medical Courts of Appeal will be read; also papers by J. G. Swayne, M.D., C. Steele, Esq., and Joseph Hinton, Esq.

CHARLES STEELE, } *Honorary Secretaries.*
R. S. FOWLER, }

12, Meridian Place, Clifton, October 1868.

CUMBERLAND AND WESTMORLAND BRANCH: GENERAL MEETING.

THE first annual meeting of the above Branch was held at the Board-room of the Infirmary, Whitehaven, on Wednesday, October 14th, 1868. Members present: Messrs. J. B. Wilson, R. Quint, and J. Braybon; Drs. I'Anson, Fidler, Dickson, Horan, and Henry (Whitehaven); Mr. Reeves, and Drs. Elliot, Clouston, Walker, Maclaren, and H. Barnes (Carlisle); Dr. Taylor (Penrith); Dr. Fothergill (Morland); Dr. Tiffen (Wigton); Dr. Dodgdon (Cockermouth); Dr. Dick (Harrington); Dr. Jones (Aspatria); Dr. Brockwell (Cleator); Mr. Syme (Egremont); Dr. Ashly (Holborn Hill); and Dr. Todhunter (Arlesden). Visitors present: Messrs. Sangster and Simpson; Drs. Ablett and Muir (Whitehaven); Dr. Wiltshire (London); Dr. Bower (Herne Bay); and Dr. Robinson (Ulverstone).

Mr. J. B. WILSON moved, and Dr. FIDLER seconded, that Dr. TAYLOR (Penrith), the President-elect, take the chair.

Dr. TAYLOR, in taking the chair, said he deeply regretted the absence of their venerable President, Dr. Barnes, on account of advanced age and failing health. He then read a letter from the President, in which he thanked them for the honour they had done him in electing him as their first President, and wished them a successful meeting. The chairman, in opening the proceedings, made a few thoughtful remarks on the present state of the medical profession, and on the advantages of Branch Associations.

The Secretary (Dr. H. Barnes) then read the minutes of the inaugural meeting of the Branch held at Carlisle in July. These were confirmed.

Papers.—Dr. I'ANSON narrated a remarkable case of Concussion of the Brain, characterised by a total absence of voluntary motion and mental efforts for a period of nine days. The patient subsequently recovered. A long and interesting discussion ensued, in which the following gentlemen took part, viz.: Mr. J. B. Wilson, Dr. Elliot, Dr. Walker, Dr. Wiltshire, Mr. Reeves, Dr. Dickson, Dr. Clouston, and Mr. Lamb.

Dr. FOTHERGILL then read a paper "On the Causes of Disease of the Muscular Walls of the Heart." An unanimous vote of thanks was awarded to Dr. Fothergill for his able paper.

Dr. DODGSON related a case of Imperforate Anus which had occurred in his practice. The rectum communicated with the urethra (the child being of the male sex). Dr. Dodgson endeavoured to reach the rectum by an operation, but failed. The child lived thirty-seven days.

Mr. REEVES read an interesting paper on the treatment of Delirium Tremens by Belladonna, which elicited a lively discussion, in which the following gentlemen took part, viz.: Dr. Fidler, Dr. Wiltshire, Mr. J. B. Wilson, Dr. Henry, Dr. Elliot, Dr. Clouston, and Dr. Tiffen. Other papers by Dr. Elliot, Jones, and Brockwell, were entered on the programme, but owing to the time occupied in the discussion of the preceding, they were postponed.

The meeting then adjourned to an adjoining room, where there was an exhibition of surgical and scientific instruments, microscopical specimens, etc., including some beautiful preparations of nervous tissue put up by Mr. Lockhart Clarke, and exhibited by Dr. Clouston of Carlisle; a cast of a fœtal monstrosity, contributed by Dr. Carlyle, and many other preparations, which excited a great deal of interest. The members and their friends, to the number of thirty-five, subsequently dined together at the Black Lion.

THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At a meeting of this corporation held on the 5th instant, the following office-bearers were elected for the ensuing year, viz.:—*President*—A. Anderson, M.D. *Visitor*—H. Rainy, M.D. *Treasurer*—J. Coats, M.D. *Honorary Librarian*—G. Rainy, M.D. *Vaccinator*—J. Dunlop, M.D. *Councillors*—The President, *ex officio;* The Visitor, *ex officio;* J. G. Fleming, M.D.; R. Scott Orr, M.D.; J. Coats, M.D.; G. Robertson, M.D.; W. Weir, M.D. *Board of Examiners*—W. Lyon, M.D., Surgery and Surgical Anatomy; A. Buchanan, M.D., Anatomy and Physiology; J. Morton, M.D., Surgery and Surgical Anatomy; R. Perry, M.D., Chemistry; R. D. Tannahill, M.D., Midwifery and Medical Jurisprudence; J. B. Gowan, M.D., Medicine and Materia Medica; A. Fergus, M.D., Chemistry; G. Buchanan, M.D., Anatomy and Physiology; R. S. Orr, M.D., Medicine and Materia Medica; W. Leishman, M.D., Midwifery and Medical Jurisprudence. *Clinical Examiners in Medicine*—The Physicians of the Royal Infirmary. *Clinical Examiners in Surgery*—The Surgeons of the Royal Infirmary. *Examiners in Arts*—J. Coats, M.D.; J. Steven, M.D. *Clerks*—L. Hill, LL.D., and W. H. Hill. *Librarian and Secretary*—A. Duncan, B.A.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

OCT. 19TH, 1868.

B. W. RICHARDSON, M.D., F.R.S., President, in the Chair.

THIRTY-FIVE new Fellows were proposed for election.

Mr. J. F. Clarke.—The following letter was read by Dr. Sansom, one of the Honorary Secretaries.

"23, Gerrard Street, Soho.

"My dear Sir,—I am desirous of presenting to the Medical Society of London, a black-letter copy of the works of Hippocrates. It is in good condition, and is rare.* It was given to me by the late Mr. Travers. It appears to me that such a work should be placed in some public library. I have selected that of the Medical Society as the most proper one to receive it. That library is probably the richest in the kingdom in rare medical works; and this will, I hope, do no discredit to the collection. Moreover, I wish, in retiring from my public duties as a journalist, to show some mark of my gratitude to the Fellows of a Society amongst whom, for nearly forty years, I have laboured, and from whom, on all occasions, I have received the utmost kindness and consideration. "Believe me, my dear sir,

"Faithfully yours, J. F. CLARKE.

"Dr. Richardson, President of the Medical Society of London."

The PRESIDENT said: I put it to the Society that a vote of thanks be recorded to Mr. Clarke for his presentation. Nothing could be in better taste than a presentation of so valuable and rare a work to the library of the Medical Society of London. That library is specially rich in such works. There is a rare copy of the great work of Michael Servetus, in which the discovery of the circulation of the blood is foreshadowed. There are Ward's *Diary*, containing the only account of the death of Shakespeare; a manuscript copy of Aretæus; the whole of the works of Hoffman; and many of the works of Michael Albertus, the author of the essay *De Curatione per Similia*. This new addition of Hippocrates will add to the rare literary wealth of the Society in no mean degree; and we are much the debtors of Mr. Clarke on that account. But this is a small debt compared with what is due to Mr. Clarke for years of continued labour and anxiety on behalf of the Society. I am told by our elders—for the events I am about to refer to must have been ages before I was born—that forty years ago Mr. Clarke commenced to report the proceedings of the Medical Society of London. He had to contend against many difficulties, and he was not at first even allowed a front seat in the library; but he persisted; he reported honestly, fearlessly; by his courteous and upright conduct he won his way; he became one of the most respected Fellows of the Society, and has filled every office, save the distinguished office which I have now the honour to hold. It is no exaggeration, gentlemen, for me to say that, in some critical periods in the history of this Society, Mr. Clarke has done more than any other Fellow to hold it together, and that his devotion, I may say his love, for the Society has known no change, no abatement. We accept, therefore, with peculiar pleasure this last mark of his good-will; and, although your acclamation assures me that the formal duty is unnecessary, I ask that those who are in favour of a vote of thanks to Mr. Clarke will signify the same in the usual manner.

The proposal was carried by acclamation.

Mr. HANCOCK, as one of the oldest Fellows of the Society, cordially endorsed what the President had stated. He sincerely regretted to hear the announcement of the termination (if he might so express it) of Mr. Clarke's public connection with this Society. He (Mr. Hancock) felt that the Medical Society of London collectively, as well as every Fellow of the Society individually, were under the deepest obligation to Mr. Clarke for not only had the position of the Society been maintained, but the professional status of every Fellow been enhanced by the talent, accuracy, and impartiality with which Mr. Clarke had reported the proceedings of the Society. He therefore felt he was only carrying out the wishes of all now present in moving: "That the best thanks of this meeting be given to Mr. Clarke for the benefits he has rendered to the Medical Society of London during the long period of forty years."

Mr. HUNT seconded the motion, and spoke in high terms of the manner in which Mr. Clarke had performed his duties.

Mr. STREETER briefly referred, in similar terms, to Mr. Clarke's reports of the old Westminster Medical Society.

Mr. J. F. CLARKE then rose and spoke as follows. Mr. President and Gentlemen, —I cannot without emotion recal to mind my first appearance in this Society many years ago, and contrast my position then with the proud one I occupy to-night. That emotion is not diminished by the fact that I see present on this occasion a few of the very Fellows who, nearly forty years since, were active members of the Society. The number is but too small; and "the snow on the mountain top" has succeeded to the black or brown heather of other days. Gentlemen, I sincerely thank you for the manner in which you have received and carried the motion before you. It is very gratifying to me to think that my long labours in your service are appreciated by so many. I have alluded to my first appearance in this Society. I succeeded a gentleman who had been expelled your ranks for what was regarded unprofessional conduct, and whose report of a celebrated case of lithotomy gave rise to an equally celebrated trial. I went to the Society, young and inexperienced, with a kind of ban upon me. I was naturally suspected, and accordingly avoided; I was placed on a back seat, and, with rare exceptions, never spoke to a Fellow of the Society. This went on for some time; first, my reports gave satisfaction; I was thanked; became a Fellow of the Society; and, as your distinguished chairman has told you, have occupied every post in the Society except that of President. This was within my reach; but I had made up my mind never to be president of any society so long as I was connected with the press. I need not say that my path was often one of difficulty, not only calling on some occasions for bold and decisive conduct, but on others requiring tact and conciliation. Well, the result of all this is, I am here tonight to receive your kind and too flattering demonstrations in my favour. Gentlemen, I do not retire from public life from decay of either mental or bodily powers [*laughter*]; and it may be that if, in my retirement, I should, like the old but not worn-out hunter, hear the sound of the horn and the baying of the hounds, I shall be in the field again, as active, if not so young, as I was "forty years since". Gentlemen, in the course of that long period, many facts and circumstances have become known to me—facts and circumstances of the deepest interest to the profession—and of these I am the sole living depository. A great number of my friends have urged upon me the publication of these reminiscences, and it is my intention to meet their wishes. I shall have leisure now to complete the main work of my life. If, like the shield of Achilles, the workmanship be equal to the material, I trust I may make a valuable contribution to our professional literature. Gentlemen, it is a great relief to me to be even for a time out of harness; to be employed usefully and honourably in public life is gratifying and invigorating; but power has its drawbacks and its sufferings, and we all sigh for "the happier hour". It is in retirement that we have true enjoyment; and I can bear out the truth of the distich of Pope,

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* The work, which is in folio and beautifully printed, bears date 1580. It is in perfect preservation.

> "And more real joy Marcellus exiled feels,
> Than Cæsar with the senate at his heels."

Mr. Clarke sat down amid loud and continued cheering.

A case of Excision of the Knee-joint was afterwards exhibited by Mr. Henry Smith; and a case of Exfoliation of a great portion of Tibia by Mr. Francis Mason.

The President then read an able and exhaustive paper "On Blood-letting", which gave rise to an interesting and animated discussion.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, October 7th, 1868.

John Hall Davis, M.D., President, in the Chair.

Dr. Bousfield, of Thetford, was elected a Fellow.

Dr. Wynn Williams exhibited a specimen of Ovarian Tumour.—Dr. Heywood Smith exhibited an early Fœtus in which an intra-uterine rent of integument had occurred.—Dr. Gervis exhibited a Double Monster.

Dr. Tilt read a paper on *Irritable Uterus*. The author commenced by objecting to the term "irritable uterus" as representing a pathological nonentity, unless it were only intended to mean the aggravated uterine neuralgia that may accompany any kind of chronic uterine and ovarian disease in women of highly susceptible nervous system. He considered the paramount cause of uterine neuralgia to be a morbidly inclined nervous system, without which, severe uterine disease will not cause severe uterine neuralgia. Given this morbid tendency, and a very slight amount of any kind of uterine or ovarian disease may cause all the symptoms described as "irritable uterus." It may be congestion of the womb or metritis, or cervical ulceration, or uterine displacement and flexions, the amount of mischief being often small; but there is always evidence of the womb having been more or less diseased for many years. Entertaining these views, Dr. Tilt entirely dissented from the statement lately put forth by Dr. Graily Hewitt, that irritable uterus was nothing more than retroflexion of the womb in a marked form. Dr. Tilt found aggravated uterine neuralgia to be of such rare occurrence, that he could not understand how it could be considered of comparative frequent occurrence, unless the name was given to ordinary cases of retroflexion. Neither could he reconcile the assumed possibility of almost universally curing irritable uterus by the use of the American pessary with the well known fact that many of these cases of aggravated uterine neuralgia are actually made worse by surgical manipulation.

Dr. Meadows then read a paper on *Flexions of the Uterus*. The author showed that in the great majority, if not in all the cases, of uterine flexion which apply for treatment, congestion and inflammation of the uterus exist; and he adduced the following reasons for believing that this inflammation almost invariably precedes, and is the principal, if not the sole, cause of the displacement. 1. That very commonly there is an antecedent history of uterine disorder. 2. That cases are often met with presenting very much the same general symptoms as those met with in uterine flexions, but where, on examination, inflammation without any flexion whatever is discovered. 3. When, in such cases, flexion takes place, the additional symptoms are due merely to the mechanical effects upon the surrounding parts, and are clinically separable from the preceding symptoms. 4. Cases of acute flexion are sometimes met with where no uterine symptoms whatever exist, and in such cases there is a complete absence of all inflammation. Various statistics were brought forward to prove that enlargement of the uterus from frequent gestation strongly predisposes to uterine flexion. Lastly, the author remarked that, for the foregoing reasons, our first care in the treatment of those cases ought to be to remedy that which is not only the cause of the flexion, but is, at the same time, responsible for by far the greater part of the patient's sufferings. When this is accomplished, but not before, we may resort to mechanical or other treatment for the reposition of the organ. The author believed that great evils would be likely to ensue if this plan of treatment were reversed.—Dr. Henry Bennet thought that the differences of opinion alluded to in the valuable papers just read might be briefly embodied in two views, which divided the profession, as it were, into two camps. One party attributed most of the varied forms of uterine suffering to displacements, whilst the other thought that these displacements were generally secondary, and often unimportant, and that the uterine suffering was generally the result of chronic congestion and inflammation. To this latter section he himself belonged. For his own part, he looked for the real result six months, a year, or more, after the entire cessation of treatment. He would also remark that, there were two causes of uterine flexions which were not sufficiently taken into account; viz., arrested absorption of the uterine tissues after miscarriage or childbirth, and marital contact. After childbirth, the uterus had to fine down in six weeks from a weight of thirty ounces or more to that of two or one and a half, and any contusion or laceration of the cervix, any inflammatory action in any part of the uterus, arrests this process; the uterus remains at eight, six, four ounces, and becomes displaced from overweight.—Dr. Graily Hewitt considered that while the subject under discussion was of the very highest importance, and very suitable for discussion, it could hardly be settled by discussion alone. Dr. Meadows, however, had inferentially allowed it to be supposed that he (Dr. Hewitt) thought little of inflammation of the uterus as connected with flexions of the organ. On the contrary, he believed that in almost all cases of flexion there was a condition of the uterus characterised by engorgement, congestion, enlargement, etc., pre-existing and predisposing thereto. So far, then, he entirely agreed with Dr. Meadows. But as to the question whether in cases of flexion the coexisting engorgement increased bulk and tenderness, constituting the "irritability" or "inflammation," as you please to call it, be the cause of the symptoms, as Dr. Meadows contends, or the reverse, he differed from Dr. Meadows, and believed that pathologically, as well as therapeutically, the flexion was the prominent and remarkable feature of these cases. The tenderness of the uterus was generally limited to the displaced fundus, which was usually sensitive to the slightest touch. The restoration of the organ to its proper shape was, in his mind, the first indication, and the success of this mode of treatment amply justified this view of the case. To treat the inflammation of the uterus without altering the shape of the organ appeared to him as illogical as the application of cooling lotions to the arm with the view of reducing a swelling and tumefaction due to a dislocated shoulder-joint. The inflammation had to be treated undoubtedly; but in most cases, he concluded, the mechanical rectification did remove or materially improve this so-called inflammation.—Dr. Tyler Smith attributed much importance to uterine displacements, and believed that one common cause of retroflexion was perineal laceration, and that in this way displacement occurred without any disease of the uterus itself. He thought that the cases in which the suffering was slight were exceptional.—Dr. Rasch said that a great deal of the discrepancy in the opinion of different authors would disappear if pure cases of flexion were properly diagnosed from those complicated with infiltration of the ligaments, inflammation of the ovaries, adhesions, etc. After describing his mode of exploring the pelvis, he stated his belief that flexions were by no means the harmless affections they were asserted to be by some. The symptoms were mostly well-marked, and the relief given in properly selected cases very striking.—Dr. **Head** had for some time, in all aggravated cases of retroversion, made examination *per rectum*, and he had so frequently found the left ovary low in the pelvis, swollen and painful, that he was inclined to believe that the symptoms hitherto supposed by some to denote irritable uterus depended mainly on a morbid sensibility of the left ovary, and that this condition had been confounded with the so-called "irritable uterus."

CORRESPONDENCE.

SPEAR *v.* DOIDGE.

Sir,—A committee has been formed for the purpose of obtaining subscriptions to assist Mr. Doidge (in the case of Spear *v.* Doidge) in paying the heavy expences to which he has been subjected. Already, without application, the sum of £30 has been promised, and they trust a large amount may be raised towards the £500 it has cost Mr. Doidge. From the warm interest you have taken in the matter, and the powerful aid given in your paper, the committee venture to ask if you will kindly allow Subscriptions to be paid to the office of the British Medical Journal; and, also, if you will give publicity to the circular which they will forward to you as soon as issued. I am, etc.,

Geo. M. Gifford, Hon. Sec.

Bellevue, Launceston, Cornwall, October 1868.

⁂ We shall be very happy to receive, on behalf of the Fund, any such subscriptions at this office. The opinion which we expressed at the time, that the verdict was contrary to the evidence, has been much strengthened by many subsequent communications which we have received. There can be no doubt that there was here a great failure of justice, and that Mr. Doidge was heavily and cruelly mulcted, and his character as a skilful surgeon attacked without the faintest shadow of just cause. The injury was one of great difficulty and complication, and the treatment that which the best surgeons would approve, under the circumstances.

HYDROPHOBIA.

Sir,—Will you allow me to assure Dr. Shinkwin that he has quite failed to convert me to his opinions, respecting the marked difference between these morbid conditions commonly called "hydrophobia" and "tetanus." Both words do but express symptoms; one, muscular spasm; the other, the dread of liquid; and in my last case of tetanus following injury the latter symptom was very prominent; while in the case related by me in the *Times*, as well as in one treated at St. Bartholomew's Hospital, the act of swallowing fluid was by no means impossible. Dr. Shinkwin must remember, with reference to the time when the first symptoms show themselves in hydrophobia: that the supposed interval of three hundred and sixty-four days (if that be true, which I very much doubt), would merely imply that such was the time of incubation of supposed poison, capable at last of exciting tetanic spasms. Permit me to assure him that "anxiety, horror, dyspnœa, and also, in some cases, convulsions at the sight of liquid, form a very prominent part of the symptoms of tetanus," as seen by me; and that I am sure no surgeon put to the bed-side without previous knowledge of the case, could, by any possibility, say whether the spasms and muscular tension were produced by some local injury, or by the supposed action of the saliva of a rabid animal. I have not remarked as yet that delirium was a common symptom in either condition. Neither have I seen increase of the secretion of saliva in hydrophobia. Opisthotonos exists equally in both. Emprosthotonos I have never seen, nor am I inclined to believe in it at all. With respect to the fatal termination in "hydrophobia;" all that we can say is, that suppose poison, whatever it may be, excites a state of tetanus which hitherto has proved unmanageable.

The symptoms attending "hydrophobia," as detailed in many works, are quite unworthy of credence. The state of alarm excited in the minds of those around, sometimes even including the doctor, can alone explain away the assertion that such patients rage, rave, and bite; that the mouth foamed, and that they bark like the animal who bit them. A patient with "hydrophobia," such as I have seen, is simply in a state of severe tetanic spasm; he is clear-minded to the last, and thankful to those around. He will take food at times, and prefer it in a liquid form; he will keep ice in his mouth; you may gently sponge his heated limbs; he is keenly alive to the dread which his condition excites in others; and I hope the day may come when we shall cure even this form of "tetanus." I am, etc.,

Holmes Coote.

October, 1868.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

Demonstrations in Histology.—The Radcliffe librarian gives notice that, by direction of the trustees, Demonstrations in Histology will be given during the present term in the Library at the Museum, by Professor Lionel Beale, F.R.S. The subject of the course will be:—The Anatomical Element or Cell, including its origin, formation, structure, and the changes which it undergoes in disease. The demonstrations will be illustrated by specimens shown under the highest powers of the microscope, and by diagrams. They will commence on Wednesday, November 4th, at 8 p.m., and will be continued on all following Thursdays during term. Members of the University, and other persons desiring to attend, are requested to leave their names at the library not later than the 2nd of November. No fees are required for this course.

Examination for Degree of M.B.—The Regius Professor of Medicine gives notice, that the final or practical examination of candidates for the Degree of Bachelor of Medicine will commence on November the 30th, at 10 a.m., in the Museum; and that the first or scientific examination for the same degree will commence December the 7th, at the same time and place. Candidates for either examination are requested to give notice to the Professor of their intention to appear, on or before November the 1st. Notice is also given, that persons who require information concerning the regulations of the University in respect of degrees, are to apply personally or by letter at the registry of the University.

Natural Science Scholarship.—Mr. H. W. L. Tanner, Associate of the Royal School of Mines, was elected to an open Natural Science Scholarship in Jesus College, on October 20th. Last week, Mr. Campbell Pyman Billing, of Magdalen School, was elected to a Natural Science Demyship at Magdalen College; and Mr. G. B. Longstaff, of Rugby, to a similar foundation at New College.

UNIVERSITY OF CAMBRIDGE.

National Science Scholarship.—Mr. C. E. Adams has been elected to a Scholarship for Natural Science in Sidney College. An examination for one or two of these scholarships, of the value of £40 *per annum*, takes place annually, early in October; it is open to all students who have not begun to reside in the University. Information respecting it may be obtained from the tutor of the college.

Dr. Robert Liveing, London, and Mr. Ransome, Manchester, have been appointed Examiners for the second M.B. examination.

UNIVERSITY OF EDINBURGH.

Sir Alexander Grant, Director of Public Instruction in the Bombay Presidency, has returned to England to assume the important post of Principal of the Edinburgh University. His connection with the Educational Department of the Bombay Presidency has extended over a period of about nine years. Sir Alexander had a farewell address presented to him at Poona on September 21st by the members of the Educational Service engaged in the Deccan, and a large public meeting was held in Bombay on September 25th, to express in the same manner the deep regret that is felt at losing him. It is not yet known who will succeed him in the office of Director of Public Instruction.

QUEEN'S UNIVERSITY IN IRELAND.

The degree of M.D. was conferred on forty-nine gentleman on the 14th by the Vice-Chancellor. It was stated that the proportion of rejected candidates was extremely high, a result attributed to the introduction of the practical plan of examining in Anatomy and Operative Surgery. The gold medal and first exhibition, which had not been awarded for five years, were this year conferred on Dr. R. S. Hudson. Valuable prizes in composition, and in the non-professional subjects of examination were also awarded to medical students. At the convocation three *ad eundem* graduates having been proposed for admission, it was resolved that they could not be admitted as the members whose names were recorded as their seconders were not present. This, surely, was senseless formality.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Oct. 14th to 20th (both inclusive).

Taken at Kew, by Dr. TREUTLER, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.847
Highest reading of do. (corrected and reduced), on 14th, 10 P.M.	30.193
Lowest ditto Ditto on 16th, 10 P.M.	29.622
Range of pressure during the week	00.571
Mean temperature of air in shade	47.6
Mean temperature of evaporation	44.4
Mean temperature of dew-point	40.9
Mean degree of humidity (saturation=100)	78.
Mean maximum temperature of the week	53.5
Mean minimum temperature of the week	37.2
Calculated mean temperature of the week	45.3
Maximum temperature of air in shade, on 15th and 16th	60.1
Minimum temperature (protected), on 19th	27.5
Minimum temperature (exposed on grass), on 19th	24.7
Range of temperature during week	35.4
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 17th	109.2
Lowest ditto ditto on 18th	67.9
Mean amount of clouds (0—10)	1.5
Total rainfall (which fell on 15th and 16th)	0.12 inch
Mean amount of ozone (0—10)	*nil.*

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	0	0	0	0	3	1	3	0	3.4
2 P.M.	2	0	0	0	0	1	4	0	0	3.7
10 P.M.	0	0	0	0	0	0	2	2	3	1.1
Mean force of wind (0—12)										2.7

The weather of the week has been fair on the whole. Atmospheric pressure has been about the average during the greater part of the week, though high at the commencement. There has been a rapid and considerable diminution in the temperature, being on the 15th, at 10 A.M., 56.4°, and on the 20th, at 10 A.M., 35.6°. Winds have varied backwards and forwards between north and south-west by the westward, and have been of moderate force. Fog prevailed on the morning of the 20th. Hoar frost lay on the mornings of the 18th, 19th, and 20th. Catarrh is somewhat prevalent, but the general health is good.

Kew, October 21st, 1868.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows, held on Monday, October 19th, 1868, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Anderson, William, St. Thomas's Hospital
Barry, James William, Metropolitan Free Hospital, Devonshire Square
England, George, Handsworth, Birmingham
Higgens, Charles, Guy's Hospital
Laking, Francis Henry, St. George's Hospital
Litteljohn, Saltern George, 2, Dagmar Road, Camberwell
McClean, Edward Henry, St, Bartholomew's Hospital
Timmins, John Aaron James, 21, Granville Square, Pentonville

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 15th, 1868.

Leonard, William, Sheffield
Lewis, William Bevan, Cardigan
Woods, George Arthur, Southport

At the same Court, the following passed the first examination.

Barnes, Edgar George, St. George's Hospital
Gillingham, Alfred, Guy's Hospital
Langford, Phineas P., Middlesex Hospital
Taylor, Frederic E., King's College Hospital

MEDICAL VACANCIES.

THE following vacancies are declared:—

ALDERBURY UNION, Wiltshire—Medical Officer for District No. 5.
BIRMINGHAM GENERAL DISPENSARY—Two Resident Surgeons.
BIRMINGHAM GENERAL HOSPITAL—Physician; Surgeon.
BLOOMSBURY DISPENSARY—Physician.
BRISTOL CHARITY TRUSTEES SCHOOLS—Physician.
BRITISH LYING-IN HOSPITAL, Endell Street—Three Physicians.
CANONGATE, Edinburgh—Parochial Medical Officer.
CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square—Physician.
CHELTENHAM COLLEGE—Surgeon.
COVENTRY AND WARWICKSHIRE HOSPITAL—House-Surgeon.
DERBYSHIRE GENERAL INFIRMARY, Derby—House-Surgeon.
DOLGELLY FRIENDLY SOCIETY—Surgeon.
DROGHEDA UNION, co. Louth—Medical Officer for the Workhouse and Fever Hospital.
GLIN UNION, co. Limerick—Medical Officer for the Workhouse; Medical Officer for the Tarbert (No. 2) Dispensary District.
GLOUCESTER INFIRMARY—Surgeon.
HAMBLEDON UNION, Surrey—Medical Officer for the Workhouse; Medical Officer for the Chiddingfold District.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, Margaret Street, Cavendish Square—Visiting Physician.
ISLINGTON DISPENSARY—Physician.
KENT COUNTY OPHTHALMIC HOSPITAL—House-Surgeon.
KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY—Resident Medical Officer.
KINGTON UNION, Herefordshire—Medical Officer for the Eardsley District.
LOYAL THORPE LODGE, INDEPENDENT ORDER OF ODD FELLOWS, M.U., Southam, Warwickshire—Surgeon.
MALE LOCK HOSPITAL—Apothecary.
MANCHESTER TOWNSHIP—Assistant Medical Officer to the New Workhouse at Crumpsall.
MERIONETHSHIRE COUNTY GAOL—Surgeon.
MITFORD AND LAUNDITCH UNION, Norfolk—Medical Officer for the Fransham District.
NEWARK—Medical Officer of Health for.
NEWARK DISPENSARY AND HOSPITAL—Physician.
NEWCASTLE-UPON-TYNE DISPENSARY—Visiting Assistant.
NEWPORT (Mon.) ODD FELLOWS' MEDICAL ASSOCIATION—Surgeon.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
QUEEN ELIZABETH'S HOSPITAL, Bristol—Physician.
ROCHESTER, CHATHAM, AND STROOD DISPENSARY—Dispenser.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician.
ROYAL INFIRMARY, GLASGOW—Two Assistant-Physicians, a Surgeon, and Two Assistant-Surgeons, to the Dispensary Department.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ROYAL SOUTH LONDON DISPENSARY, St. George's Cross—District Surgeon.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Surgeon.
ST. MARY'S HOSPITAL, Manchester—Resident Medical Officer.
SALISBURY—Medical Officer for the United Parishes of, and the Workhouse.
SKIPTON, Yorkshire—Certifying Factory Surgeon.
SOUTH STAFFORDSHIRE INFIRMARY, Wolverhampton—Physician.
STRANORLAR UNION, co. Donegal—Medical Officer for the Killygordon Dispensary District.
TREDEGAR IRON-WORKS, Monmouthshire—Assistant-Surgeon.
TRINITY COLLEGE, Dublin—Professor of Botany.
UNIVERSITY OF GLASGOW—Waltonian Lecturer on the Eye.

MEDICAL APPOINTMENTS.

*COOKE, John, M.B., has been appointed to the Medical Staff of the Hastings Dispensary, *vice* G. F. Giles, M.D., resigned.

*CROTTY, R. S., L.R.C.P.Ed., has been appointed Assistant House-Surgeon to the North Dispensary, Liverpool.

*PIGG, Thomas, M.D., has been appointed Physician to the Manchester Southern Hospital for Women and Children.

BIRTHS.

HARRIES.—On October 19th, at Dogpole, Shrewsbury, the wife of *J. D. Harries, Esq., Surgeon, of a daughter.

KNOTT.—On October 16th, at Bugbrooke, near Weedon Royal, the wife of *W. P. Knott, Esq., Surgeon, of a son.

MOORE.—On October 19th, at 28, Upper Merrion Street, Dublin, the wife of *Robert H. Moore, Esq., Surgeon, of a son.

DEATH.

VERITY.—On October 10th, at Talywain, Pontypool, Monmouthshire, A. Nicholl, the only child of *A. Robert Verity, M.R.C.S.E.

THE PRESERVATION OF EGGS.—Many methods of preserving eggs have been recorded. There is one which is used in the provisioning of Paris on a great scale, and which is described as the most sure. The eggs are plunged, in wire baskets each holding a dozen, into caldrons of boiling water, during about a minute. A thin layer of the egg coagulates on the inner surface of the shell, and prevents the infiltration of air, which is speedily fatal to the freshness of the egg.

THE BENGAL MEDICAL RETIRING FUND.—The *India Daily News* has been informed that the members of the Medical Retiring Fund, which was lately taken up by Government, have memorialised the Government of India, to transfer their deposits, etc., to Her Majesty's Treasury, on the ground that many of them are residing in England, and that those who serve in this country will have eventually to return home and reside there. The Governor-General in Council is said to have acceded to the prayer of the memorialists.

OF THE
UNIVERSITY OF ILLINOIS

AN ADDRESS
ON THE
ANTISEPTIC SYSTEM OF TREATMENT IN SURGERY.[*]

Delivered before the Medico-Chirurgical Society of Glasgow.

By JOSEPH LISTER, F.R.S.,
Professor of Surgery in the University of Glasgow, etc.

I will now proceed to speak of the mode of dressing. Carbolic acid, as I have already remarked, is soluble in liquids of very different kinds, so different for example as water and one of the fixed oils; and each solution has its own special value. Water, having little affinity for the acid, dissolves but a small quantity, only one-twentieth part of the pure crystals,[†] and holds that small quantity very loosely, so as to permit it to act with energy on any substance for which it has stronger attractions, and also to become soon dissipated on exposure. Hence, the watery solution is a pretty potent but transient application. Now this is exactly what we want when we apply carbolic acid to the interior of a wound for the purpose of destroying any germs which may have been introduced into it. We require something that will act with energy for the moment; but which, as soon as it has extinguished the vitality of the septic particles, may disappear from the wound, in order that the tissues may be left free from all unnecessary irritation. The fixed oils, on the other hand, have so strong an affinity for the acid that they will mix in any proportions with it, and hold it so firmly as not to permit it to act with much energy on the tissues, or to become soon dissipated into the atmosphere. Hence an oily solution is comparatively bland but permanent in its operation. These are just the properties which are desirable for an external application. We wish it to serve as a reservoir of the acid, retaining it for twenty-four hours at least, so that it may remain constantly exerting its antiseptic influence upon the discharges that flow out beneath it. At the same time it is most important that it should be mild in its action on the surface to which it is applied, in order to avoid irritation and excoriation. It appears clear, therefore, that a watery solution is best adapted for the treatment of the interior of a wound in the first instance, while an oily preparation is suited for an external dressing.

We have next to consider the best form for the oily application. I have used various forms; of which some have proved trustworthy, and others not so. One that has shewn itself thoroughly reliable is a paste composed, like glazier's putty, of boiled linseed oil and whitening, but with the addition of about one part of carbolic acid to four of the oil. Even in the case of large abscesses, where there has been in the first instance a profuse discharge, the putty, if properly applied and retained securely in position, prevents with perfect certainty the spread of putrefaction into the interior. But the putty is a somewhat clumsy and inconvenient preparation, and I have been desirous, if possible, to get rid of it. Within the last few months I have given a full trial to cloths dipped in a solution of carbolic acid in olive oil, but I am sorry to say that this method, though attractive from its simplicity, is not reliable. It is true, indeed, that we have had some beautiful cases under this mode of management; as for example the following.

Case of Compound Fracture of the Right Leg and Severe Contused Wound in the Left Foot, in a Person of Advanced Age.—On the 31st of January last, a woman, aged 74 years, was admitted into the Infirmary, having been run over by a heavily laden omnibus. The wheels had passed over both lower limbs, producing in the right leg compound fracture of both bones a little above the ankle, with a considerable wound on the outer side of the limb communicating with the broken fibula, and another on the opposite aspect, not directly connected with the seat of fracture. In the left limb the violence had been sustained by the foot, which presented at its inner aspect a large gaping contused wound, four inches long and two inches broad, while the skin was extensively detached, so that when a watery solution of carbolic acid had been introduced at the wound, pressure over the skin at the outer or opposite side caused some of the fluid to escape, shewing that it had passed freely over the upper surface of the foot, beneath the undermined integument. She had also a wound on the forehead, two inches long, exposing the os frontis. From these various injuries she had lost a great deal of blood, and she was also suffering from contusions in other parts of the body. All the wounds were dressed with layers of lint soaked with a solution of carbolic acid in olive oil; the superficial layer, larger than the rest, being changed daily while the deeper layers were left undisturbed. Under this treatment the wound on the forehead healed without the formation of a drop of pus, and those in connection with the compound fracture were converted into superficial granulating sores, without any more disturbance, local or constitutional, than if the fracture had been a simple one; and the bones united in the usual period under the use of pasteboard splints. But the most remarkable circumstance in the case was the progress of the injury of the foot. Three days after the accident, my house-surgeon, Mr. Appleton, observed that a considerable portion of the undermined skin on the dorsum of the foot had lost its vitality; and instead of adopting the usual course of applying wet lint or a poultice till the slough should separate, he extended the antiseptic dressings so that they overlapped the dead portion of tissue for a considerable extent in every direction; after which, the daily changing of the superficial layer was continued as before. The result, though in strict accordance with the principles which I am endeavouring to enforce, was strikingly opposed to ordinary experience. After the subsidence of the copious sanious effusion which took place immediately after the injury, the discharge became reduced to about one minim in twenty-four hours, without any distinct appearance of pus, while the foot remained free from the slightest uneasiness, so that she moved it as usual in the bed, and imagined it perfectly recovered. Such being the case, knowing, as I did, that to remove the deep dressings would be to induce, at the best, two large granulating sores which must, from that time forward, furnish a considerable amount of pus that would act as a drain upon the old lady's feeble system, I left the crust of lint and dried exudations untouched for seven weeks, at the end of which time it became spontaneously detached. On raising it, we found a narrow line of cicatrix along the inner side of the foot, complete healing by scabbing having occurred in, I suppose, the largest wound ever known to heal in that manner in the human subject. And on the dorsum of the foot, in place of the large slough, was a broad scar, a portion in the centre about as large as a fourpenny piece alone remaining unhealed; the dead tissue having, apparently, been absorbed, as none of it was found on the dressing. The superficial layer of antiseptic lint daily renewed, had answered the purpose of preventing putrefaction from spreading inwards, while the thickness of the permanent crust had kept the carbolic acid constantly supplied externally from penetrating to its deepest parts. Hence, the portion of the dressing in contact with the skin, having lost its original acid by diffusion into the circulation, before sufficient time had elapsed for granulation and suppuration to take place under the stimulating influence of the antiseptic, became a perfectly unirritating or neutral body, and the dead portion of tissue beneath it, being in like manner destitute of any stimulating properties, became amenable to absorption, like the bit of the external coat in the noose of the antiseptic ligature, or the dead bone in the case of necrosis, above related.

But, while I have mentioned this case as a good example of the behaviour of severe injuries under antiseptic management, I wish it to be distinctly understood that I do not recommend the mode of dressing adopted. For, as I have already stated, and as bitter experience in some other cases has but too clearly convinced me, it cannot be implicitly relied on. The reason why it is less trustworthy than the putty is sufficiently plain. The lint, being porous, absorbs the discharge, which, as it enters, displaces the antiseptic oil, and may thus, if profuse, establish a channel of putrescible materials from the external atmosphere to the wound. Again, when the discharge has passed through the dressing, even though it have been imbued with carbolic acid in its passage, it gives it off into the atmosphere on exposure, when it becomes again liable to putrefaction, and, having putrefied, may soak back into the porous dressing, and deprive it entirely of antiseptic virtue. For carbolic acid and the products of putrefaction exert a powerful chemical action upon each other; and, on this account, the former is a deodorant as well as an antiseptic, and, conversely, the latter, if in sufficient quantity, neutralise the acid and render it inert. In this way, I have known a dressing, consisting of several layers of the oiled lint, lose all odour of carbolic acid and acquire that of decomposition within twenty-four hours of its application.* The putty, on the other hand, being impermeable to the discharge, retains the carbolic acid securely stored up, except in so far as it is exhaled from the surface, to maintain a constant antiseptic action upon the blood, serum, or pus, that flows out beneath.

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[*] Continued from page 102.

[†] The impurities often met with in carbolic acid interfere with its solubility in water. The first specimen with which I happened to experiment was an impure liquid kind, sold as "German creasote", and this was absolutely insoluble in water; the associated organic compounds having, apparently, too strong an affinity for the acid to permit water to appropriate any of it. I was thus led into the mistake of stating that carbolic acid is insoluble in water. (*Lancet*, March 16th, 1867.) I may remark that the public are much indebted to Mr. Crace Calvert, of Manchester, for his successful efforts to prepare carbolic acid in a pure form at a moderate price. Mr. Calvert's second quality of the crystallised product, sold wholesale at 1s. 6d. per pound, is sufficiently pure for surgical purposes.

Impermeability to a watery fluid being thus evidently the essential cause of the superior efficacy of the putty, the chalk, which is its chief constituent, being of no other use than to give consistency to the mass, it naturally occurred to me that, if the oily vehicle of the carbolic acid were in a solid form, the chalk might be dispensed with, and the advantages of the putty might be obtained in a less bulky and more convenient form. I tried, in the first place, various kinds of *emplastra*; but these appeared objectionable on account of their adhesiveness, which is greatly increased by the admixture of carbolic acid, and which seemed likely to be mischievous by retaining the discharge. I next employed paraffine, mixed with a little wax to give it tenacity, and a little olive oil to confer the requisite softness. This certainly made, under ordinary circumstances, an effective as well as elegant substitute for the putty, being perfectly devoid of adhesiveness, while a comparatively thin layer proved secure by antiseptic. But the paraffine cerate had this great disadvantage, that, in situations where it was subjected to much movement, such as the groin, it was apt to crumble down and become useless. Meanwhile I learned that Dr. Watson of Edinburgh was employing soap-plaster mixed with carbolic acid, and that, though adhesive, it appeared to work well; the discharge finding its way out beneath it. Thus I was again induced to try *emplastra*; and of late we have been using what seems to answer admirably; viz., *emplastrum plumbi* mixed with one-fourth part of bees-wax to give it sufficient consistence, the carbolic acid being in the proportion of about one-tenth of the whole.† This is used as a plaster spread on calico in a layer of about one-twentieth of an inch thick, and I can recommend it as thoroughly reliable. There is a case which I am dressing with it at the present time, which I may mention on account of its interest otherwise.

Case of Old Fracture at the Ankle with Fixed Displacement of the Foot, Rectified by Aid of the Antiseptic System.—A young man, aged 29, was engaged in mooring a vessel on the 11th December, 1867, when one of the massive ropes, used for the purpose, slipped and struck him with violence at the outer and posterior aspect of the ankle, fracturing the fibula about two inches above the joint, and breaking off the internal malleolus at its base, driving the bones of the leg forwards and inwards with respect to the foot, or, in other words, producing displacement of the foot backwards and outwards. Four months after the receipt of this injury he came under my care in the Infirmary, with the heel very prominent and the foot greatly everted, and firmly fixed in its abnormal position by osseous union of the fragments. In this condition the limb was absolutely useless, and the question arose whether anything could be done to restore it. It was clear that the foot could not be replaced without breaking through the "callus" which could be plainly felt in both bones, and there seemed no prospect of being able to do this without cutting down and adopting means which, in the case of the tibia, would necessarily involve opening into the articulation, or producing artificially a compound fracture into the ankle joint. This I certainly should not have dreamed of doing without the aid of the antiseptic system, being well aware of the disastrous course such injuries commonly run under ordinary management. If I had operated at all, I should have made a point of removing the end of the tibia, and even then I should have felt that I was subjecting the patient to some risk. But feeling confident that I had the means of converting a compound fracture into a simple one, I did not hesitate to adopt the following procedure. On the 11th inst. (April 1868), the man being under the influence of chloroform, I made a curved incision behind and below the prominent end of the tibia; and, a solution of carbolic acid in about four parts of olive oil being dropped into the wound during the progress of the operation, I detached the soft parts from the bone sufficiently to enable me to insinuate behind the callus one blade of a pair of cutting pliers, smeared with the same oil, and then having placed pieces of lint, soaked with the oil, around the blades of the pliers, so as to prevent the chance of septic air entering the joint when the bone should give way, divided the callus, and at once covered the wound with the antiseptic lint. I then made a longitudinal incision over the seat of fracture in the fibula, and divided it with similar precautions. Having thus overcome the obstacle presented by the bones, I proceeded to draw the foot towards its proper position by pulleys acting upon its outer and posterior part through the medium of a skein of worsted passed round it, while a padded belt supported the opposite aspect of the leg above the ankle: the wounds being kept carefully covered with the oiled lint. When a considerable amount of force had been used there was a sudden sensation of something giving way; and now, on removing the apparatus, the foot was found to have resumed its natural place. The wounds were then dressed with layers of lint soaked with a weak oily solution of carbolic acid, and covered with the antiseptic plaster; after which, a Dupuytren's splint was applied at the inner side of the limb to prevent eversion, and Mr. Syme's horse-shoe splint anteriorly to obviate the tendency to displacement backwards. Fresh plaster has since been applied daily; and the result has been that, while the foot has retained its position satisfactorily, the patient has not suffered at all either locally or constitutionally, during the six days that have elapsed since the operation. His pulse has remained 68 or 70, he has not lost his sleep a single night, his tongue has been quite clean, and his appetite good. In fact, he has taken his food with better relish than before, because he has been freed from his previous gloomy prospect of hopeless lameness, while the operation has caused him no anxiety; as the assurance which I felt justified in giving him, that it was entirely free from danger, has been confirmed by the absence of pain or other annoyance. The discharge which was sanious and copious in the first instance, has of late been only about three minims of clear serum in twenty-four hours; and judging from our previous experience with compound fractures, there is every reason to expect that in a few days more it will cease entirely.

[The subsequent progress of the case has been, on the whole, very satisfactory. But, for reasons to be soon referred to, healing by scabbing did not take place as was anticipated. The discharge, instead of drying up, showed rather a disposition to increase, and assumed a somewhat puriform character; and, although the renewal of the superficial plaster once in two or three days did not involve much disturbance of the limb, I thought it best to expose the wounds when sufficient time had passed to ensure the secure coalescence of their deeper parts. Accordingly, on the 1st of May I removed the lower portions of the dressings, disclosing two superficial granulating sores, with very prominent granulations which explained the want of disposition to cicatrise. These, though treated with astringents, proved rather indolent, so that they were not completely healed till the 4th of June, though the bones were firmly united a fortnight before.

When he was allowed to walk, though he placed the sole fairly on the ground, he experienced inconvenience from a contracted state of the sural muscles, produced by the long continued displacement of the foot backwards and consequent downward pointing of the toes, so that he could not bend the ankle beyond the right angle at which it had been maintained since the operation. I hoped that this inconvenience would be overcome by exercise; but in this I was disappointed; for though his power of walking improved, it was by no means satisfactory. It also appeared that the abnormal position of the foot had led to an exaggeration of the curve of its arch, to such an extent as to make the foot half an inch shorter than the other, while the plantar fascia was felt as a rigid band. I therefore divided that fascia and the tendo Achillis subcutaneously on the 26th of July, and this had the immediate effect of restoring the foot to its natural length, and permitting the ankle to be bent at an acute angle. Had I the case to treat over again I should perform the tenotomy at the same time as the main operation. But except the loss of time that has occurred, the result is nearly all that could be wished. Under the use of a Scarpa's shoe he has continued to improve steadily, and when I last saw him, in the early part of September, he could walk firmly and well, and complained only of some remaining stiffness of the ankle.]

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* If fresh oil is assiduously supplied at short intervals by night as well as by day, this objection to oily cloths as a dressing is removed. But this would in many cases be impracticable; and, as a general rule, it is obviously undesirable, from the trouble and uncleanliness involved in it. There are situations, however,—such as the perinæum,—in which this is probably the best mode of management. And it may be added that, in any case where the discharge is very trifling, oiled lint, changed once in twenty-four hours, will prove sufficiently reliable.

† In making the plaster with the ingredients mentioned in the text, the emplastrum plumbi and the bees-wax are melted and mixed together, and allowed to cool, till the liquid begins to thicken; the carbolic acid is then added and stirred in, which has the effect of bringing back the mass into the state of a thin liquid, which is assiduously stirred till it thickens, to prevent the wax from separating in granules. This plaster is, however, inconveniently soft, and cannot be kept spread in stock. I have since found that by increasing the proportion of litharge, the lead-soap may be made of any degree of firmness that may be desired, provided that water be not used in the manufacture. When the litharge and olive oil are in the proportions directed by the *Pharmacopœia*, a certain quantity of water must be added to promote the combination of the fatty acids with the oxide of lead, and even then the process is a very tedious one. But it is an interesting fact chemically, that if the litharge is used in about four times the pharmacopœial proportions, although no water be employed, the combination proceeds under a brisk heat with great rapidity. It is upon this fact that the following method of manufacture is based.

Take of olive oil, 12 parts by measure; litharge (finely ground), 12 parts by weight;
bees-wax, 3 parts by weight; crystallised carbolic acid, 2½ parts by weight.

Heat half the oil over a slow fire; then add the litharge gradually, stirring constantly till the mass becomes thick or a little stiff. Then add the other half of the oil, stirring as before till it becomes again thick. Then add the wax gradually till the liquid again thickens. Remove from the fire and add the acid, stirring briskly till thoroughly mixed. Cover up close and set aside, to allow all the residual litharge to settle; then pour off the fluid, and spread upon calico to the proper thickness. The plaster made in this way can be spread by machine, and kept rolled up in stock; and, if in a well fitting tin canister, will retain its virtues for any length of time. This I believe to be the most perfect form in which an antiseptic lead-plaster can be obtained. It is supplied at a very moderate price by the New Apothecaries' Company, Glassford Street, Glasgow. For almost all purposes, however, it is superseded by the lac-plaster, which will be found described in the succeeding part of this address. These improvements in the materials for dressing have occupied a much longer time than I had anticipated; and have been the cause of the delay in publication.—J. L.

[*To be continued.*]

PERIOSTEAL PRESERVATION IN OPERATIVE SURGERY.*

By WILLIAM STOKES, Jun., M.D.,
Surgeon to the Richmond Surgical Hospital, and Lecturer on Surgery in the Carmichael School of Medicine, Dublin.

As the value of periosteal preservation in operative surgery is a topic in which I have been much interested during the past five years, I am desirous of drawing the attention of this Section of the Association to it; not because I can boast of having to add much to the knowledge which we already possess on the subject, and for which we are so largely indebted to Professors Syme and Langenbeck, and M. Ollier; but because this modification in operative surgery is one which I cannot but think is of considerable practical value in the technical department of our art. This opinion, however, is far from being generally accepted. Operating surgeons—some of them of the highest eminence—question the possibility of performing subperiosteal resections; others absolutely deny the utility of this modification; while, again, others either contemptuously ignore it in their writings as if it were altogether unworthy of discussion, or, at most, consider its value very questionable indeed. This being the case, I was specially anxious to bring the subject under your notice in a brief communication; inasmuch as, although, as I previously mentioned, I have nothing that is very novel to relate on the subject, yet some operations in which I have practised both preservation as well as transplantation of periosteum, have been attended with results which, in truth, I may say have been signally illustrative of the importance of this modification in joint resections, as well as in other operative measures.

Did time permit, I would wish much to draw your attention to many points connected with this subject, which have led to the practical application of periosteal preservation in operative surgery. First, for example, to discuss the results of subperiosteal resections made on the lower animals; secondly, the proofs of osseous regeneration by the periosteum in man; thirdly, the result of transplantation of the membrane in the lower animals; and, lastly, to discuss generally the results of the experimental researches proving the osteogenetic properties of periosteum, which have been made, in the first instance, by Du Hamel, his pupil Fougeroux, Vigarous and Wiedmann, as well as those of Syme, Ollier, and others; all of which have, in truth, proved incontestably that the function of the membrane is not limited, as was formerly held by Haller, Bordenare, Bichat, and others, to simply limiting the form and size of osseous structure, its vessels supplying nutrition to the bones it enveloped, and, lastly, acting as a barrier against the extension of disease. The discussion of these topics would, of necessity, be replete with interest; but, on consideration, I have determined to refrain from entering on this part of the subject on the present occasion, as it would require, to do it justice, much more time than is at my disposal, and is also, perhaps, more adapted for purely physiological investigation, than for that which is the prime object of our present meeting; namely, to discuss subjects which may, directly or indirectly, tend to modify or improve the science or art of practical surgery.

My attention was specially directed to this subject, in consequence of my having witnessed on several occasions, during the years 1863 and 1864, the application of the subperiosteal method, applied not alone to articular resections, but also, in some instances, to those of bones in their continuity. These were performed respectively in the surgical cliniques of Professor Langenbeck and M. Ollier; and it was from the remarkable results which I had an opportunity of witnessing, that induced me to investigate the subject myself—first experimentally, and subsequently practically.

I shall not detain you by attempting to demonstrate the possibility, as well as facility, of this operative method, both of which have been denied —or, at all events, strongly questioned—by various surgeons, many of whom, I cannot but think, have condemned this novel procedure without first taking the necessary trouble of investigating its merits for themselves; but, without reference to any experimental research on the lower animals, having given you the leading facts connected with some of the cases on which I have operated in this way, I shall then indicate the difference between the results obtained in the one instance by the subperiosteal method, and in the other by the ordinary mode of excision.

The first of these operations was performed on a girl, aged 12, of delicate habit, who was under my care in the autumn of 1864, and who suffered from strumous disease in her left elbow-joint. The patient stated that, four months previous to her admission into hospital, she received a fall in which the elbow was struck against the ground with great violence. After falling, the patient suffered severe pain in the joint; it swelled greatly; and she found it impossible to extend or "stretch" it, to use the patient's own expression. The inability of extension of the arm remained a permanent condition. Three months after the accident, the patient was admitted into my wards in the hospital. I found the arm forcibly flexed; extension was impossible. The soft parts about the joint were swollen and puffy, so that it was quite impossible to determine whether the original injury was an epiphysary disjunction, which the age of the patient rendered probable, or a simple luxation. There were three or four sinuses, situated over and in the immediate vicinity of the internal condyle; and, on introducing a probe into any one of these, the existence of soft diseased bone could be readily determined. I accordingly performed the operation, adopting the long vertical incision, carrying it over the ulnar side of the olecranon, and, taking especial care not to divide the triceps tendon, proceeded to raise the periosteal envelope by means of the various formed raspatories devised for the purpose. The elevation of the periosteum was not attended with any great difficulty, and the remaining steps of the operation were then completed in the ordinary manner. The limb was afterwards put up in a gypsum bandage, and kept in a continual bath for four weeks. After this, the wound being all but healed, gradual flexion and extension were commenced. Three months and a half after the operation, the power of flexion and extension of the joint was almost perfect; and now, at a period of little more than three years after the operation, during which period there has not been the slightest evidence of a re-appearance of the disease, the patient enjoys every motion that the healthy joint possesses, perfect power of flexion, extension, pronation, and supination; and, what bears more directly on the immediate subject of this communication, there is a most obvious osseous re-formation, not only of the condyles, but also of the olecranon. This re-formation of the olecranon has also been frequently observed by Langenbeck, and also by Hueter, one of his former assistants.

The next case was also one in which I excised the elbow-joint. The patient was a girl, aged 8. The right elbow-joint, which was the seat of very extensive strumous disease, had been affected for upwards of nine months; the disease had commenced, according to the account which her parents gave, without any local exciting cause. There were several sinuses over the posterior portion of the joint. Through these, on introducing a probe, softened diseased bone could be felt. Excision was performed precisely in the same manner as in the previous case; and the subsequent treatment by the gypsum-bandage and the continual bath in every respect identical. It is now six months since I saw the case; but then the sinuses had healed, the motions of the arm were excellent, and the re-formation of the portions of bone removed was perfectly obvious.

In a third case, in which I excised the elbow subperiostally, the case progressed most favourably until the ninth week after the operation, the wound being at that time quite healed; but symptoms of pneumonia supervened, which unfortunately proved fatal. I regret extremely that I was not permitted by the friends of the patient to make any examination of the joint.

Another case affords a striking illustration of the osteogenetic properties of periosteum, and, consequently, of the great practical importance of carefully preserving it in resections. The patient, a young woman, about 19 years of age, suffered from suppurative osteitis of the right ulna, the result of a severe blow. A free incision was made down to the bones; and over this, which I found extensively diseased, the periosteum was much thickened. Having divided the membrane by one of Nélaton's so-called periosteal knives, I then detached it by means of raspatories from off each side of the bone. The diseased portion of bone, about two and half inches in length, was then removed by small resection-saws. Three months after the operation, the wound was completely healed. New bone had formed throughout, and the patient was enabled to return to her employment, which was that of a house-servant. The result of this case, though of the last importance, does not afford so signal an example of the importance of periosteal preservation, after resections of portions of bones in their continuity, as the classical case of Louise Gaillard, recorded by M. Ollier—a case which I was fortunate enough to have an opportunity of seeing—where the upper half of the humerus was excised for a similar affection, and with the happiest result. A year after the operation, the patient was enabled to return to her employment with an useful arm.

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* Presented to the Surgical Section at the Annual Meeting of the British Medical ssociation in Oxford, August 1868.

The next cases to which I would wish to draw attention were two of caries of the metatarsal bone. The first of them was that of a young man, aged 26, who was under my care in September 1864. Eighteen months previously he commenced to suffer from abscess formations on the dorsum, as well as in the sole of the foot. He was quite unable to continue his work, which was that of a sawyer; and, in truth, had not attempted to walk for the sixteen months previous to September 1864. He had been under the care of various surgeons, who had done every thing that tonic medicines, generous diet, rest, etc., could do, to improve his condition. I removed the diseased bones subperiosteally on the 2nd of September. The disease was found to be confined to the third and fourth metatarsal bones; and the periosteum being much thickened over them, was easily detached. The case was subsequently treated by the continual bath, the temperature of which was kept steadily at 85 deg. in the manner I have described in the *Dublin Quarterly Medical Journal* for May 1865. On September 25th, the wound being nearly healed, I took the foot out of the bath; on the 1st of October it was completely healed; and on the 2nd of October, one month after the operation, the patient showed that he was able, not only to walk and run, but even hop across the ward on the foot that for eighteen months had been the seat of a painful and distressing disease. Since that time I have had frequent opportunities of seeing the patient, and of satisfying myself of the obvious reformation of bone that has taken place. There is not the slightest trace of reappearance of any carious disease in the foot or elsewhere. The second case in which I performed a subperiosteal resection of metatarsal bones, was one which was under my care last September. The patient, a boy, aged 16, of very strumous habit, stated that about two years previously he suffered from an abscess formation in the foot, for which he could not assign a cause, never having received any injury whatever to the foot. At the time of his admission he suffered greatly from pain. Over the third, fourth, and fifth metatarsal bones numerous sinuses were situated; and, on introducing a probe through them, softened diseased bone could readily be felt. There was a great deal of general infiltration and swelling about the diseased structures. The operation was performed in the following manner. I commenced by making an incision about two inches and a-half in length over the situation of the fourth metatarsal bone, and at the centre of this I made another an inch and a-half in length at right angles with the first passing inwards. The two triangular-shaped flaps thus made, were dissected back, and thus I was enabled to see the diseased osseous structures. The periosteum was, as is usually the case under such circumstances, much thickened, and, consequently, easily detached from the bones, which were without much difficulty removed. A fortnight after the operation, the wound and sinuses being completely healed, the patient, free from pain, left the hospital, enabled to walk about without any inconvenience. Eight months subsequently I examined the patient carefully, and, after the use of local anæsthesia, inserted needles over the portion of the foot where the bones had been removed, and satisfied myself, beyond all question, as to the osseous re-formation.

The next case I would wish to draw attention to, is one where I excised the ankle-joint in the spring of last year. This case, however, was only a partial subperiosteal resection, the articulating extremity of the fibula being removed by the chain-saw not subperiosteally. After this was done, the articulating extremity of the tibia was dislocated outwards through the wound, which was made by a long, somewhat curved incision along the lower end of the fibula, and then brought obliquely forwards and inwards towards the internal cuneiform bone; and the periosteum, which was found thickened and loose, was easily detached from the bone without the necessity for any of the periosteal raspatories. This case I also treated by the continual bath. In connection with this operation, I may mention, in passing, that Langenbeck, in the Schleswig-Holstein war, performed subperiosteal resection of the ankle-joint in five cases, four of which were successful.

The last of my cases to which I shall refer, as proving the osseous reproductive power of periosteum, and which proves it more satisfactorily than any of those I have already referred to, was an Indian rhinoplastic operation, modified by transplantation of periosteum from the frontal bone into the flap, for the formation of the new nose. This modification was first suggested by M. Ollier, but first practised by Professor Langenbeck. In this operation the transplantation of periosteum has been objected to by some surgeons, on account of the supposed injury to the bone from which it is removed. In a letter which I received some time ago from Mr. Cæsar Hawkins on this subject, he remarked: "I must confess I doubt the propriety of removing periosteum in such operations as yours for the nose, especially in adults in whom the bone is more easily killed." However, when we consider the sources from which the cranial bones derive their vascular supply, we need not so much fear the deprivation from the os frontis of a portion of its periosteal covering as this; and the other cranial bones derive their means of nutrition and reparation not merely from the periosteum, but also from the dura mater. The case is somewhat different when other bones have become deprived of their periosteal covering from injury or disease. Then we may not unreasonably apprehend the unhappy sequence of partial necrosis of the bone; but even this does not occur as frequently as is commonly supposed. Professor Humphry, in his classical work on the Human Skeleton, mentions several cases in proof of this. In none of the animals either on which I have made periosteal transplantation have I been able to determine the existence of any necrosis following the operation; and I think we may not unreasonably suppose that, as far as this matter is concerned, what holds good in the lower animals may also hold good in man. I have never observed either in rhinoplastic or uranoplastic operations any injurious effect produced on the bone from which the membrane was removed.

In the case of the young man on whom I performed a rhinoplastic operation, to which I have before alluded, the nasal bones were completely destroyed by lupus. About fifteen months after the operation, I inserted, in two different situations in the nose, the so-called "entomologist" pins down to the newly formed bone, and satisfied myself and others present, beyond all doubt, as to its existence.

There is another class of cases, in which recently Professor Langenbeck has suggested, and practised, I believe, extensively in the Bohemian war of 1866, periosteal preservation. This is when amputations were required. He proposes removing a strip of periosteum from a point considerably below where the section of the bone is made, so that, after the bone is divided, the broad strip of periosteum can hang over its cut surface like a curtain. As he believes the membrane becomes in a very few hours adherent to the bone, he thinks that it can in this way act as a barrier and protection against purulent absorption, and that in this way the chances of osteo-myelitis and pyæmia are greatly diminished. I have not myself had any experience of this novel proposal; and I cannot, therefore, either verify or disprove his statements respecting the value of this measure.

It is a matter of regret to me that periosteal preservation has not been adopted more largely by operating surgeons in the British schools. The cases are, in truth, very few where it has been practised. Of the Dublin cases, with the exception of my own, the only important ones bearing on this subject were two of excision of the superior maxillary bones, which occurred respectively in the practices of Dr. Collis and Dr. R. McDonnell. The latter case was one of considerable importance, as showing that, even at a very advanced age, the osteogenetic properties of periosteum remain unimpaired. The patient was a hale-looking countryman, aged 68. The left half of the hard palate was the seat of epithelial ulceration. The disease had resisted treatment by caustics, etc., for months; and then Dr. McDonnell determined to remove the affected part by excision. The upper lip was divided in the middle, and the ala of the nose separated from its attachment. Before dissecting up to the flap so formed, the gum along the outside of the alveolar processes was divided; and the periosteum from the outside and anterior part of the bone was carefully raised, along with the more superficial parts. That portion of the superior maxilla (on the left side) which forms the roof of the mouth and the floor of the antrum was then removed with the forceps. The flap was placed in apposition; and the patient made a rapid recovery, and left hospital. After spending some months in the country, he returned to hospital, in order to get an artificial palate, and to have his teeth readjusted. At this time, the periosteal membrane dissected from off the bone at the time of the operation had already formed a complete ring of bone, in front attached to, and supporting, the ala of the nose. The opening in the floor of the antrum was also completely closed up by the new bone.

In America, our surgical brethren have not been slow to test, and many of them adopt, the subperiosteal method, not only for the resection of joints, but also of bones in their continuity. Among others, I may mention the names of Dr. W. Hunt of Philadelphia, Professor Wood of New York (who is a warm advocate for this method), and also Dr. Moon of Philadelphia. The latter gentleman has related a case of great interest, to which I cannot avoid alluding. The patient was a man whom he treated for a gun-shot wound in the right leg, which he received at the battle of Petersburg, in July 1864. Very nearly two-thirds of the tibia were removed subperiosteally. On May 10th, 1865, he wrote: "I am at work at my trade, coach-building, and have complete use of my injured leg, running up and down stairs as well as any of the workmen. The wound has entirely healed, and new bone formed throughout." In another case, five inches and a half of the tibia were removed, the periosteum being left; and resulted in a like cure. A still more remarkable case occurred during the last Schleswig-Holstine campaign in 1864, in which Professor Langenbeck performed a subperiosteal resection of a large portion of the diaphysis of both tibia and fibula, and which was brought to a successful termination, with complete re-formation of bone.

Time would not permit me to discuss some other points connected with this subject, which I consider of the utmost importance. I shall content myself, therefore, with stating the following propositions, which are based on the physiological experiments and clinical experiences of M. Ollier especially, Langenbeck, Lücke, Moon, Wood, my own, and others who are interested in this subject. These are:

1. That, in subperiosteal resections, the reproduction of bone is more complete, and effected with greater rapidity, than after total removal of both bone and periosteum.

2. That the osseous reproductive properties of the membrane vary according as it is taken from the long or short bones, being greater in the former than in the latter. (Ollier.)

3. That the normal form of the joint is better preserved than when the precaution of leaving the periosteal covering is taken.

4. That the subperiosteal resection involves less danger than when conducted on the old principle. This proposition is grounded chiefly on the results of Ollier's experiments on the lower animals; the number of unfavourable results which followed when the membrane was removed being much greater than when it was left.

5. That the difficulties attending the separation of the membrane in the dead subject are not to deter us from attempting the operation on the living, inasmuch as the membrane is less adherent in the latter, and also much thicker, in the great majority of cases, on the diseased than on the healthy bone.

6. That the chances of much shortening of the limb are diminished by this method, as shown by the results of the ankle-joint resections during the late Schleswig-Holstein war.

7. That subperiosteal resections are more conservative, as, in a great many cases, they diminish the necessity for amputation.

Gentlemen, accept my best thanks for your kind attention during the reading of this communication on a comparatively novel procedure in operative surgery, and of my experience in which I am sorry I can only give so brief an account. But still I trust that what I have said will convince some present of the importance and applicability of a practice which is based on accurate observation of physiological phenomena, on which alone all systems of rational therapeutics, whether medical or surgical, can truthfully be founded.

ILLUSTRATIONS OF THE VALUE OF THE MICROSCOPE IN THE TREATMENT OF THE STERILE CONDITION.*

By J. MARION SIMS, M.D., Paris.

THE great Velpeau died, having no faith in the practical utility of the microscope; and I am ashamed to say that, even ten years ago, I was one of those who believed it to be merely a scientific toy with which to while away leisure hours. Fortunately, my ignorance was dispelled, and I now look upon the microscope as essential to the daily duties of the physician. While I would refer you to Beale and others for what it has done and is doing in the broad domain of medicine, I shall content myself with laying before you now a few illustrations of the value of the microscope in the treatment of the sterile condition.

In the investigation of a case of sterility, there are three questions that must be settled at the outset, if we expect to proceed understandingly.

1. We must be sure that we have semen with spermatozoa.
2. We must ascertain if the sperm enter the utero-cervical canal.
3. We must determine whether the secretions of this canal are favourable or not to the vitality of the spermatozoa.

The present advanced state of physiological knowledge warrants us in saying that conception is impossible without spermatozoa; that it is impossible if the spermatozoa cannot pass into the cavity of the uterus; and that it is equally impossible if they die, or are poisoned, on their passage to this cavity. These three points we must determine, it matters not what other complications there may be. Fortunately, they are all easily and quickly settled by the microscope. Without the microscope, it is utterly impossible to determine either one of them. Without the microscope, then, our treatment of the sterile state is simply blind empiricism. With it, our diagnosis becomes absolutely certain, and our treatment at least rational. What, then, are the first steps in this investigation? How can we begin? Where shall we begin? We only need a drop of seminal fluid to determine whether it contains spermatozoa or not.

I am in the habit of examining the vaginal and cervical mucus for spermatozoa some hours after coition, and I have thus often determined the three propositions above laid down all at once. Gosselin and other French physicians direct the man to use one of the abominable things so common in France (and, I am sorry to say, now also in my own country), which are intended to protect the male against infection, and the female against both infection and conception. This, with its contents, is sent to the microscopist for the necessary investigation. But a nicer way of managing this disagreeable but important affair is that adopted by my friend Mr. Curling. He directs the man, immediately after intercourse, to squeeze a drop of mucus from the urethra on the object-glass; and from this the examination is made. This will settle the question, so far as the man is concerned; but it will still be necessary to examine the utero-cervical secretions, to determine the second and third propositions; and therefore I never put the man through the above ordeal till I am forced to do so. Fortunately, it is not often necessary. Given a case of sterility for investigation, the physician examines the state of the uterus and its appendages. His patient may have a frightful dysmenorrhœa, a contracted or flexed cervix, a malposition, or something that would probably prevent the passage of the semen into the cavity of the uterus. He may feel perfectly convinced that his patient can never conceive, unless some surgical operation be performed—perhaps incision of the cervix uteri. This operation is usually done, to permit the easy passage of the semen into the uterine cavity. But how can we tell that the semen does not pass into the uterine cavity? We must not take it for granted that it does not, simply because the os uteri seems to be small; for we know that cases are on record where conception has occurred where the os would barely admit a small sized probe; and we know also that spermatozoa occasionally pass along the Fallopian tubes, which barely admit the passage of a bristle. If the semen enter the cervical canal, we may lay it down as a rule, that an incision of the cervix is not necessary; but, if it do not, it may be necessary. We may perform any operation we please for the relief of suffering, and for the restoration of health; but I insist that we have no right to perform any operation, or to institute any treatment whatever, solely for the cure of the sterile condition, till we have first settled the three propositions above laid down touching the presence and viability of the spermatozoa. To find out all at once, and with the least delay and trouble, I usually say to the husband (or wife, as it may be), "It is very important, before instituting any treatment, to be sure that the semen enters the canal of the neck of the womb, and also to be sure that the uterine secretions do not neutralise the semen; for, under such circumstances, there could be no conception. Will you, then, have the kindness to send your wife to me, or come with her, some day when you have had sexual intercourse in the morning?" In nineteen cases out of twenty, the wife presents herself the next day. The speculum is introduced, and some vaginal mucus is removed with the syringe, and placed on an object-glass. Then some cervical mucus is drawn out, and placed on another object-glass. These are then examined under the microscope. If we find spermatozoa, well and good; but, if we find none, our fears are at once aroused. What then is to be done? I simply say that I am not quite satisfied with the examination, and would like to see the wife again under the same circumstances. But suppose we find none on the second examination: then I have been in the habit of saying, "I would like to see your wife in bed twenty or thirty minutes after sexual intercourse, for I fear her vagina holds no semen." The husband appoints the time; and, of course, I am punctual. If I then find in the vagina a fluid with the seminal odour, I am satisfied with the microscopic examination. But it will not do to say we have no spermatozoa, simply because we find the vagina empty; for I have occasionally examined the vagina eight or ten minutes after coition, and found it empty, and with no sign of spermatozoa whatever in the little mucus that would naturally stick to its walls; and that, too, where a normal quantity of semen, full of the fructifying principle, had been ejaculated. But, unfortunately, the vagina had ejected the whole of it, as a consequence of some anatomical configuration. If we fail to get any for examination, we are then forced to Mr. Curling's expedient. Suppose, at last, we are satisfied that the semen contains spermatozoa, then, as before said, we have to determine whether these pass into the cervix uteri; and, if so, do they find a fluid there favourable to their existence alive? And all this can only be done by the use of the microscope.

The question of the entrance of the semen into the cervical canal and of the effect of its secretion upon the spermatozoa, can be fully and satisfactorily ascertained only during a very brief period. We may make a mistake if the microscopic examination be undertaken just before the expected return of the menses; and why? Because there is always a certain amount of fulness of the uterus—of engorgement, so to speak—which precedes the menstrual flow; and the cervical canal may not admit the semen from mere turgescence of its walls. Besides, at this time, its secretions are almost sure to kill the spermatozoa even if they should happen to enter this canal.

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* Read in the Midwifery Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

Physiologists are generally agreed that conception takes place during the week following menstruation. Avrard says we have fourteen days of active uterine life and fourteen days of uterine hypnotism. He says that conception can occur at any time after menstruation up to the fourteenth day, counting from its commencement. For instance, if menstruation should last for three days, then we would have eleven days for the possibility of conception. But, if menstruation should last eight or nine or ten days, then we would have respectively but six or five or four days as the time possible for conception. After this time, the uterus, according to Avrard, lapses into the hypnotic state, when conception is impossible. While I am disposed to accept Avrard's dictum as the rule, I think I have seen exceptions to it, if we can always depend upon testimony seemingly reliable. Be this as it may, I am sure of this fact: if we wish to determine the effects of the cervical mucus upon the spermatozoa, we must make the experiment during the week that follows menstruation. About the fifth or sixth day after the flow is the best moment; for then the uterus is in the most favourable condition. The cervical mucus, which just before menstruation was perhaps thick and opaque, then becomes clear and translucent. If, by examination made at this particular period, we should find spermatozoa in the cervical mucus, we could safely say that it will not be necessary to incise the neck of the uterus. But if the sperm do not enter the canal, then the probabilities are in favour of the necessity of some surgical interference. The semen may enter the cervix in great abundance, and we may find the spermatozoa all dead, even but a few minutes after coition. Then, of course, we must find out the source of the poisonous secretion, and remedy it; for a vitiated secretion shows some organic condition requiring a special treatment.

As before said, when I wish to examine the action of the cervical mucus upon the spermatozoa, I order sexual intercourse in the morning—the dorsal decubitus to be retained for an hour afterwards; and I expect a visit from my patient four or five or six hours after coition. Sometimes I find spermatozoa in great abundance in the cervical canal, and not one living. [I have occasionally examined the mucus, six, eight, and ten minutes after coition, and found all the spermatozoa dead.] Sometimes, we find half of them dead; again, only about a third; again, two-thirds. Sometimes, in one portion of the mucus, every spermatozoon is dead; while, in another portion of the same sample with fewer epithelial scales, we may find them alive and in great numbers. Now and then, after treatment for a month or more, I have found the mucus drawn from the lower segment of the cervical canal full of living spermatozoa, and I have supposed that the case was cured; but when I came to examine that drawn from the upper segment of the canal, near the os internum, they were nearly all dead. This was evidently because the mucous membrane lining the lower segment of the cervix, being more easily reached and more thoroughly treated, had assumed a healthier character, and consequently its secretion was restored to a normal condition; while that higher up, and more difficult to reach, had not been so much improved, and hence its secretion was still abnormal—a condition requiring further treatment.

The vaginal mucus, by its natural acidity, kills very quickly every spermatozoon. I do not now remember ever to have found one alive in the vagina, except when the examination was made very soon after coition; when, indeed, the vagina was full of semen but slightly mixed with other secretions. Examined three or four hours after intercourse, the spermatozoa found in that portion of the mucus of the vagina adhering to its walls are always all dead. Indeed, the normal vaginal secretion seems to be a perfect poison for the superabundant spermatozoa.

When, after a month's treatment, I wish to know whether the case is cured or not—in other words, whether all possible recognised barriers to conception are removed—I order sexual intercourse (just after menstruation) at night, and examine the cervical mucus twelve or fourteen hours afterwards. If the majority of the spermatozoa be alive and active, I have great hope of conception. Before dismissing a case as cured, I think it necessary to examine the mucus thirty-six hours after coition; and, if it is then all right, of course I suspend the treatment, and patiently await the hoped-for result.

So much care is necessary in the removal of the mucus for microscopic examination, that I may be pardoned for referring to it again. The patient is placed in the left semi-prone position, as I have elsewhere so minutely described, and my speculum is introduced, and some of the vaginal mucus is drawn up with a small glass syringe, previously washed out with warm water. This is deposited on the object-glass; the vagina is then cleared of all secretion, whether vaginal or cervical, the whole of the vagina and the os uteri being thoroughly wiped over with a pledget of cotton. This is for the purpose of guarding against the possibility of mixing vaginal with cervical mucus, which would, of course, spoil the whole experiment. The cervix is brought forward either by the depressor or a tenaculum, if necessary, which enables us to look directly into the cavity of the cervical canal. The syringe is then to be again thoroughly rinsed in warm water; its nozzle is passed into the gaping canal for half an inch, and the cervical mucus in its lower segment is drawn out. The instrument is emptied, washed out again with warm water, and re-introduced up to the os internum, and another portion of mucus is drawn out, provided there is any left after the first effort. Thus we have three specimens of mucus; *i. e.*, the vaginal, and two from the upper and lower portions of the cervix unmixed with the vaginal. The cervical secretion should be clear and translucent, and about the consistence of the white of egg. If it contain any little opaque specks of milky whiteness, it invariably poisons the spermatozoa, to a greater or lesser extent. But the portions of it without the milky-looking specks may be very favourable to spermatozootic life. We sometimes find the cervical mucus perfectly clear, and yet poisonous to the spermatozoa. Here we would naturally expect to find excessive alkalinity of the secretion; but I have not been able to detect it. In these cases, it has seemed to me that the spermatozoa were killed—drowned, as it were—by the very abundance of the secretion. I do not here allude to cases of uterine catarrh, where the secretion is very thick and albumino-purulent; for, of course, this is a deadly poison to the living principle of the semen. But I allude wholly to such cases as have been changed by treatment to a condition giving rise to a secretion seemingly normal, so far as an ordinary ocular examination is concerned. Here the microscope is our unerring guide. The mucus may be clear, and perfectly normal in appearance; but, if it kill the spermatoa, then there is still some point in the canal of the cervix, or in the cavity of the uterus, that gives out a vitiated secretion; and this must be found out and corrected before the case is wholly cured. When we find living, active spermatozoa high up in the cervical canal thirty-six or forty hours after coition, we can pronounce the case cured, so far as it can be by surgical means, and not till then.

It is time for us to pause and consider if there is not something more to be done for the sterile condition, than to split up the cervix uteri. I look upon this operation as one of the greatest importance, as one of the most valuable in uterine surgery, but I think that we have followed too blindly the example and teachings of its illustrious author, Sir James Y. Simpson. For myself, I am now sure that I have cut open the cervix uteri, perhaps scores of times, when it was both useless and unnecessary; and I know that others have done the same thing. Do not misunderstand me. I speak here solely of the operation with reference to the sterile condition, when it would be wholly useless if the husband happened to be sterile, and certainly unjustifiable unless imperatively called for by considerations of health. Incision of the cervix for dysmenorrhœa is one thing; incision of the cervix for sterility, even if there be dysmenorrhœa, is another, and it behoves us to draw the line of distinction in every case, and not to take it for granted that every woman is sterile who may have dysmenorrhœa or feeble health, or that every man is prolific who may be vigorous and enjoy good health. I am sorry to say that I have had the misfortune to incise the cervix in half a dozen cases of sterility, where I found afterwards, to my great mortification, that the husbands were incapable of procreation, because their semen had no spermatozoa, and that too since I have known the value of the microscope. In each case the operation was called for to restore health, but was totally useless for the relief of its incidental accompaniment, sterility, and would not probably have been submitted to for considerations of health alone, had it not been for the hope of offspring afterwards. I made the mistake of operating on these cases, because the social position, moral character, and appearance of health in the husband, conjoined with the excessive dysmenorrhœa and utter prostration of the wife, led me to operate without the preliminary step of ascertaining whether there were spermatozoa or not. I wish others to profit by my mistakes; and I am less ashamed to tell you of them, than I am to own them to myself. However, this can never happen to me again, and should not, after this warning, happen to any of my brethren. I know many men who have no spermatozoa and cannot therefore become fathers. They are all strong active men in the prime of life, and all perform the sexual function with vigor and at will. The very fact of their natural vigor and strong passions had been their ruin, for most of them had contracted urethritis during their early and unmarried life, and had suffered from its unlucky sequence epididymitis. This condition is said to be sometimes remedied, but I have not as yet seen a case of it cured.

[*To be concluded.*]

TWO CASES OF STONE IN GIRLS: WITH REMARKS.

By THOMAS SMITH, Esq.,
Surgeon to the Hospital for Sick Children; Assistant-Surgeon to St. Bartholomew's; etc.

From the comparative infrequency of stone among women, it comes about that there is some difference among surgeons as to the best plan of treatment for vesical calculus, and but few generally recognised or settled principles to guide us in our choice of an operation when the patient is a female. If this be true of stone in women, it is even still more so in girls, among whom calculous affections are even less frequently met with. Since the opening of the Children's Hospital in 1852, but three cases of girls with stone in the bladder have come under observation. In all, the disease had, up to the time of admission, remained quite unrecognised; in one case, so long that the child died of her complaint (without operation) three days after admission; and, in another case, long enough to give rise to the suspicion of disease of the spine, and to have secured the patient a bed in a hospital for some months, whence she was discharged unrelieved.

In selecting the method of cure for any particular case, undoubtedly the first and most weighty consideration is the safety of the patient, and next the preservation of the power of retaining urine. Thus, of the different means of cure—viz., lithotrity, the various modifications of lithotomy, simple dilatation of the urethra, and dilatation combined with incision—there is no plan so generally suited to womanhood as lithotrity, since by it the stone can be removed with inconsiderable danger to life, and without risk of permanent urinary incontinence. While in all cases the size of the stone must in a great measure determine the plan of operating, the choice of an operation in children is still further restricted by their local peculiarities—namely, the small size of the vagina, the presence of the hymen, the irritability of the urethra and bladder, and by the want of self-control shown by the patient. On these accounts, the operation of lithotrity is unsuited to girls. Vesico-vaginal lithotomy also cannot well be practised—that is, the extraction of a stone through an incision in the vesico-vaginal septum behind the neck of the bladder; for this would inevitably destroy the hymen; and the small size of the vagina would embarrass the operator in his attempts to close the wound by suture.

Simple dilatation, *dilatation combined with incision*, and* *lateral lithotomy* (as performed by Dr. Buchanan), have each their advantages in particular cases, and are the only methods of cure suitable for children.† Though in girls the dilatability of the urethra and neck of the bladder is proportionately greater than in women, it can never be worth while to risk a permanent incontinence by overstretching the sphincter vesicæ; and this is no imaginary danger, since cases are recorded, even in children, where incurable incontinence has resulted from overstretching the neck of the bladder. The incontinence resulting from paralysis of these muscular fibres is too apt to be permanent. On the other hand, incontinence resulting from incision either of the vesico-vaginal septum or of the muscular fibres surrounding the neck of the bladder and urethra, if not recovered from spontaneously, is curable by surgical operation. Mr. Lane has suggested that, in adults, dilatation should not be employed when the stone is larger than an acorn; nor in a child when larger than a horse-bean. In children, the exact size of a stone, and the amount of stretching necessary or justifiable for its extraction, can be determined while the operation is in progress.

For children, dilatation is conveniently carried out during extraction by the blades of the forceps which hold the stone. If a well-shaped pair of forceps be used, very long in the blades, and slender; such an instrument forms an excellent dilator. It will be found that the exit of the stone can be much facilitated by a push from behind, with the point of the forefinger in the rectum. When, also, during extraction, the stone has advanced some distance into the urethra, room may be gained, and the tension relaxed, by removing the forceps altogether, and pushing the stone from behind through the meatus urinarius with the forefinger from the rectum. By the same agency, also, the position of the stone in the blades of the forceps can be altered, if desirable.

During extraction, if the stretching seem too great for the sphincter vesicæ to bear without risk to its integrity, the meatus and neck of the bladder can be divided to the required extent as they lie stretched over the stone. The tension being sufficiently relaxed, sutures of horsehair or fine wire can very easily be introduced through the divided edges while the stone is *in transitu* and the wound in full view. These may be fastened up when the stone has been extracted. It is almost impossible to introduce sutures after the stone has been extracted, and when the wound has fallen back in the recesses of the child's vagina.

Case i. *Stone in a Girl aged seven.*—E. McM., aged 7, was admitted into the Children's Hospital, under Mr. Thomas Smith's care, on October 18th, 1865. She had suffered from symptoms of urinary irritation for twelve months; on admission she was pale, haggard, and fretful; she had severe pain on micturition, and almost complete incontinence of urine; there was no blood in the urine. A stone could easily be felt from the rectum, or on introducing a probe through the urinary meatus. The child had for some months previously been treated for disease of the spine, with no relief to the symptoms. On October 21st, the stone was grasped laterally by forceps, which were slid over its surface with some difficulty, as the walls of the bladder closely grasped the calculus, and were at one spot adherent to it. As traction was made upon the stone, it became evident that the external orifice of the vagina was too small to admit of its passage. The fourchette was therefore divided posteriorly towards the anus to some extent. This allowed the lower wall of the bladder to come into view. The vesico-vaginal septum was now divided longitudinally, beginning at the meatus urinarius, for about half-an-inch towards the os uteri. When it was evident that the stone could be extracted without further division of the soft parts, two silver sutures were passed; the one through the divided perineum, and the other through the wound made in the neck of the bladder. This was easily accomplished while the stone was *in transitu*, and while the edges of the two wounds were stretched tightly over the stone so as to be within easy reach of the finger. The extraction of the stone was materially assisted by pressure made from behind on the back of the stone by means of the forefinger in the rectum. During the operation the tension of the soft parts was considerable. The stone was adherent to the bladder at its distal end, and came away as if broken off, and afterwards there was found on the fundus of the bladder a piece of calculous matter very difficult to separate; so soon as the stone had been removed, the sutures were brought together. No symptoms followed the operation, and in a day or two the child began to hold her urine for a few minutes; a week later she could hold it for half-an-hour. A fortnight after the operation she was up and about, and could retain the urine for an hour at a time. The sutures were at this time removed. The wound in the perineum was found to be soundly healed, while that in the bladder was still ununited. Three weeks after the operation she was discharged, being able to retain her urine for three hours at a time during the day. At night the urine escaped involuntarily. Three months afterwards, the child was again admitted, suffering from complete incontinence, the wound in the vesico-vaginal septum was just as when first made. The edges were pared, and two silver sutures, introduced by means of a needle, shaped like a corkscrew, and having an eye near its point; a fortnight afterwards these sutures were withdrawn, and the wound was found closed to the extent that it had been brought together. A month later, the remainder of the wound was closed with three silver sutures, and in a fortnight afterwards the child was discharged, being able to hold her urine naturally by day, but occasionally wetting her bed by night. The stone was somewhat of an hour-glass shape, being pointed at the end which lay against the urethral orifice of the bladder and constricted about its middle; its posterior extremity was rough and broken, where it was adherent to the bladder; it weighed 215 grains, and measured an inch and three-quarters by three-quarters of an inch.

Case ii. *Stone in a Girl aged five.*—Mary Ann B., aged 5, was admitted into the Children's Hospital, under Mr. Thomas Smith's care, on April 22nd, 1865. She had suffered from pain and difficulty in micturition for six months. When passing urine, she kept one finger pressed against the roof of the vagina. A calculus was easily struck by a probe through the urethra, and it could be felt from the rectum. On April 22nd, the stone was extracted by means of forceps through the urethra; the fourchette of the vagina, and the neck of the bladder being divided to the necessary extent during the passage of the stone. The parts being very small, and the stone escaping rather suddenly at last, no attempt was made to close the wound in the bladder; indeed had such an attempt been made, it would have been unsuccessful when once the stone had escaped. The hymen was not injured by the operation. The child in the course of a week recovered complete control over her bladder, and was shortly discharged cured. The stone was composed of uric acid coated with triple phosphate, it was oval in shape, weighed 116 grains, and measured an inch and a-quarter by seven-eighths of an inch.

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* See *Lancet*, 1863, vol. i, p. 57, for a description of this operation.

† I have excluded the suprapubic or high operation from consideration, as too dangerous to life.

OBSTETRIC MEMORANDA.

[Under this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

REMARKABLE CASE OF TWINS.

By J. N. Smart, Esq., M.R.C.S., etc., Bedminster.

On February 28th, 1868, at 10 P.M., I was requested to attend Mrs. J., a police-sergeant's wife, in her first confinement. On my arrival, I found that she had been in labour all day; and, upon making an examination, found presenting a peculiar body resembling a flattened tumour. After careful examination, I found the tumour to be a little foot, decomposed, as I thought. I delivered my patient of a fœtus of about five months' growth, quite flattened, and converted into an adipocere-like substance, I then made an examination *per vaginam*, and detected a second child. presenting naturally. After waiting two hours, I delivered Mrs. J. of a full-grown, healthy, living female child. The placentæ were adherent at the edges; the small one being formed of a cartilaginous substance, the other perfectly healthy. The appearance was most peculiar. My patient did remarkably well.

A CASE OF ACCIDENTAL HÆMORRHAGE; VERSION; DIFFICULT DELIVERY; GOOD RECOVERY.

By Osman Vincent, Esq., lately Obstetric Physician's Assistant to the Middlesex Hospital.

Mrs. H., aged 35, residing in Charles Street, Portman Square, was in the eighth month of pregnancy with her fourth child; when, on the night of the 22nd of May, 1868, being frightened by a fire in the opposite house, she jumped quickly out of bed. This act was followed almost immediately by a smart attack of hæmorrhage. One of the hospital midwives was quickly in attendance, and sent for me. I found the patient rather frightened, but the pulse full and strong. The os uteri admitted two fingers, but owing to its position in the pelvis, and the length of the cervix, the presentation could not be felt. There being nothing like labour pain, and no hæmorrhage going on, cold applications were ordered, and a mixture of gallic acid every four hours. At 4 P.M. there was a recurrence of the hæmorrhage. When I arrived the radial pulse could hardly be felt. The os was fully dilated but high up; the hand passed into the vagina found the membranes unruptured, and the right arm and funis presenting. With two fingers of the left hand in the uterus, and the palm of the right externally pressing up the head, I accomplished version, and reached the right foot. I then ruptured the membranes, and brought the foot down into the vagina. The uterus contracted so firmly that I could not find the left foot, and my hand becoming cramped, I determined to give chloroform. A short time after being put under the influence of chloroform, the parts became relaxed; the placenta could be felt (partially detached) to the front of the uterus, and the left leg, crossed tailor-fashion, on the abdomen, above the umbilicus. This was at once brought down, and the body delivered (at this time there was no pulsation in the cord.) The head remained fixed, with the face to the pelvis, and the os uteri over the chin. It was a matter of some time and difficulty to disengage the os, but at last the head was delivered, with the funis round the neck. A tremendous gush of blood followed. The placenta was removed directly, and the uterus contracted firmly. By this time the patient was extremely blanched, the surface cold, and the pulse imperceptible. Brandy and ice were given freely, and I soon had the satisfaction of feeling a return of the pulse at the wrist, which improved rapidly. An hour after delivery she was ordered forty minims of laudanum and brandy and ice at short intervals. The next morning she had had a little sleep; the pulse was 120; some slight pain in the abdomen, and some sickness, possibly the effect of the chloroform. She was ordered ten minims of tincture of opium in one ounce of effervescing saline mixture. After this the patient had not a single bad symptom, and made a slow but complete recovery. All her confinements had been severe. In the one previous to this the placenta had presented. Dr. Eastlake had attended; and the case is reported in the *Lancet*.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

MR. HUTCHINSON'S LECTURES ON THE USE OF THE OPHTHALMOSCOPE.—LECTURE I.

Nyctalopia of Sailors: Retinitis, etc. in Albuminuria: Amaurosis with White Atrophy, in a Woman, with Arsenical Poisoning and Threatened Insanity.—On Friday evening, at the Moorfields Hospital, Mr. Hutchinson gave the first of the seventh course of Demonstrations on the Theory and Use of the Ophthalmoscope. The first hour was, as usual, occupied by the demonstration; the second, by the lecture. In the lecture, the chief cases which had been the subject of demonstration, were briefly described.

The first alluded to was that of a young sailor just arived from India, who, whilst passing up the Red Sea, had become the subject of nyctalopia. He had been brought for demonstration by Mr. Fairlie Clarke, clinical assistant to Mr. Bowman. Mr. Hutchinson stated that the chief interest of his case, as regards the ophthalmoscope, lay in the fact that no morbid conditions whatever were present. In this, the case corresponded with others of the same class. We must regard this form of defect of sight—"moonblindness", the nyctalopia of sailors and travellers—as a functional matter. It is to be carefully distinguished from the nyctalopia which ushers in certain forms of amaurosis; *e.g.*, retinitis pigmentosa.

The next case was one of hypermetropia, brought forward chiefly because of the great ease with which the fundus could be examined. The lecturer advised all beginners, after having well practised on the artificial eye (Perrin's), to make their next step on a hypermetropic one, and thus, by degrees, approach the real difficulties of their task.

A third case was that of a florid healthy looking man from the country. He stated, that until three weeks ago he had enjoyed excellent sight, then his right eye became a little dim, and a week later it suddenly became almost blind. The ophthalmoscope explained the sudden failure most satisfactorily. There was a patch of extravasated blood on the yellow spot itself. Around this patch and about the optic disc the retina was hazy and milky, but there were no very definite dots or patches of deposit. This conjunction of retinitis, with extravasation, in an elderly man, led to the suspicion of albuminuria; and, on testing the urine, a small quantity of albumen was found to be present. The patient had no other symptom of that disease. In connexion with this case, Mr. Hutchinson adverted to another now under his observation, but which, on account of the patient's ill health, he had been unable to bring before the class. In it, a woman, now in the eighth month of pregnancy, had her urine loaded with albumen, and both retinæ covered with extravasations and patches of deposit.

The fourth case demonstrated was one of white atrophy of the optic nerves in a woman, with other symptoms of disease of the nervous system. Sight has been failing for a year, and with the right eye she can now only just count fingers, whilst with the left she can read large type (No. 20). The patient is aged 56, and attributes her ailments to the fact that, for the last seven years in her occupation as artificial flower maker, she has been constantly the subject of chronic arsenical poisoning. For this she has repeatedly been under care at different hospitals. Soreness of throat and eyes, extreme nervousness, numbness and tingling of fingers, and sense of sinking at the pit of stomach, have been her chief symptoms. During the last two years, her restlessness and depression of spirits have been such, that at times she has been almost insane. Mr. Hutchinson said, that at first he had been inclined to suspect that the long-continued arsenical poisoning might have been the cause of the amaurosis; but, on further inquiry, it appeared that the woman had, three years before she commenced her present occupation, been under Mr. Bowman's care for a temporary defect of vision. He was therefore inclined to suspect the existence of cerebral disease independent of the arsenic, and of a kind probably related to that which occurs in locomotor ataxy. He directed attention to the fact that, in women, amaurosis with white atrophy is almost always complicated by other symptoms of cerebral disease; whereas, in the male sex, there is a remarkable group of cases (tobacco amaurosis) in which such complications do not occur.

The rest of the lecture was occupied by the explanation of some of the optical questions concerned in the examination of the eye by the aid of the ophthalmoscope, which will be resumed in next Friday's lecture.

ROYAL ALBERT HOSPITAL, DEVONPORT.

LIGATURE OF FEMORAL ARTERY FOR ANEURISM OF THE VESSEL IN HUNTER'S CANAL.

(Under the care of Mr. W. P. SWAIN, F.R.C.S.)

E. H., aged 28, mason, was admitted July 30th, 1867, into the Royal Albert Hospital, under Mr. Swain. He was small and spare, of florid complexion, somewhat bald. In the position of Hunter's canal, on the right side, there was a pulsating tumour of about the size of half an orange, having a distinct *bruit* with the systole of the heart, and a peculiar roughness, which could also be felt in the arteries above. Pressure on the femoral completely stopped the pulsation. The circumference of the thigh over the tumour was 14½ inches, that of the other 14 inches. At the base of the heart, and along the course of the large arteries leading from it, a double murmur was distinctly audible. At the heart's apex, the murmur was systolic only.

History.—On Saturday, July 21st, he made an exertion to prevent a fall, but did not experience any inconvenience till the next day, when, while dressing, he felt pain in the situation of the tumour; and, on examining it, found a swelling. During the three or four days previous to his admission, the tumour increased rapidly in size; and he suffered a good deal of pain in the calf.

He was ordered to have a morphia draught at night.

On August 2nd, pressure was commenced on the femoral artery by means of a Signoroni's tourniquet, and was kept up daily as long as he could bear it (from eight to ten hours daily) till the 6th, when a conical bag, containing seven pounds of shot, was substituted for it, and the pressure made as far as possible complete. On the 15th, digital pressure was commenced at 10 A.M., and sustained till 10 P.M., when he became very restless and faint. It was therefore discontinued; and the next morning the tumour was found to be larger and more painful.

Aug. 17th. Mr. Swain tied the femoral a little above the apex of Scarpa's triangle. The tumour ceased to pulsate immediately the ligature was tightened. He was placed in bed, with his leg wrapped in cotton-wool, and raised. A morphia draught was ordered.

Aug. 18th. He was restless till the morning, when he got some sleep. He complained of pain in the wound. The temperature of the leg was good; pulse 96. He had a rigor about 12 noon. He was ordered to have three grains of disulphate of quinine with twelve minims of liquor morphiæ every four hours.

Aug. 19th. He had a better night. The skin was rather warm, and moist; the face was somewhat flushed; pulse 120; the tongue was slightly furred; the bowels were open; the appetite was indifferent. He complained of pain in the wound, and of tenderness in the tumour. The temperature of the leg was good.

Aug. 20th. He had a fair night. The skin was rather hot; pulse 108, very soft; tongue coated slightly; appetite improving; bowels not open. The wound was dressed; it discharged a good deal of bloody pus. There was no pulsation in the tumour. The temperature of the leg was good.

Aug. 21st. He was much easier. Pulse 96; bowels open. The wound was discharging freely. There was no pulsation in the tumour. The sutures were removed from the wound. He complained of numbness in the foot, and of tenderness in the tumour.

Aug. 22nd. The wound was discharging freely. He did not complain of pain. There was no pulsation in the tumour. Pulse 84; bowels open. The temperature of the leg was good.

Aug. 24th. Pulse 72, easily compressed. There was no pulsation in the tumour. The posterior tibial artery could be felt.

Aug. 26th. He slept well. Pulse 84; tongue clean. The bowels acted yesterday. The wound was looking healthy; not discharging so much. The tumour was not so tender; no pulsation.

Aug. 29th. Fluctuation in the tumour was very distinct; it was not tender. Pulse 84.

Aug. 31st. The ligature had not yet come away. The wound was healing well. There was no pain. Pulse 84; bowels pretty regular; appetite good.

Sept. 2nd. The wound was healing rapidly. The ligature still remained. The tumour was becoming rather softer; it was not red, nor tender.

Sept. 6th. The ligature still remained. There was no return of pulsation in the tumour, which appeared to be becoming somewhat smaller.

Sept. 10th. The tumour was still smaller. The ligature still remained. His general condition was unaltered.

Sept. 11th. The ligature came away.

Sept. 17th. The wound was nearly healed. The tumour was still decreasing in size.

Sept. 22nd. He was allowed to get up for a short time daily.

Sept. 29th. The wound was quite healed; the tumour was about a third of its original size. He got up and walked about without pain; and was discharged on October 4th, 1867, the tumour being about one-half its original size.

He was seen in May 1868, when the tumour had entirely disappeared. He died suddenly, on July 24th, 1868.

POST MORTEM EXAMINATION, July 25th.—The pericardium was full of bloody serum, with a large firm clot surrounding the heart. The heart was small; the valves were natural. At the posterior part of the aorta, just above the valves, there was a large irregular opening, leading into an aneurism, which would contain about four ounces of fluid, and which communicated by a small opening with the pericardium. The femoral artery was quite obliterated at the point of ligature; and a small clot still remained in the upper part, about half an inch long. The original site of the aneurism was marked by a diffuse dark deposit, apparently of blood-clot; but no distinct sac could be made out. The orifice in the vessel was marked by an oval depression with sharp cut edges, which looked very much as if the entire thickness of the artery had given way at this point.

The case is interesting as an instance of the complete failure of compression either by the tourniquet or the fingers. The use of the latter means seemed to act injuriously, and necessitated the immediate ligature of the vessel. The ligatured artery and the aneurismal sac were exhibited in the Annual Museum at Oxford.

BEDFORD FEVER HOSPITAL.

CEREBRO-SPINAL MENINGITIS.

By W. G. JOHNSON, Esq., Bedford.

THE following two cases are interesting, on account of their rarity in this country, and their occurrence in a family where typhoid fever of the ordinary character and of a mild form had existed.

Mary P., aged 19, was brought to the Fever Hospital in the summer of last year. She was found, on admission, to have ailed three days, but to have become rapidly worse during the last twenty-four hours, and was then in an insensible state, and delirious. The tongue was white and furred; the pupil was contracted; pulse hard and quick; bowels confined. She had slight arching of the back on being moved. The skin was freely sprinkled with blue spots of a purpuric character, which did not fade on pressure. Menstruation had been regular. Her head was shaved and cold applied. Beef-tea, milk, and arrowroot were ordered. From the time of her admission until the seventh day, the symptoms became worse. On the day following her admission, the tongue had become brown, and in a day or two almost black. Sordes rapidly appeared upon the teeth, and the skin became covered with blue petechiæ. The pupils were contracted almost to the size of a pin's point. The bowels were obstinately confined, and were relieved only by injections given every other day, which brought away lumps of hard fæces each time. Spasmodic fits with opisthotonos became more frequent and violent. On one occasion, the nurse was absent a minute or two, and found her thrown out of bed and lying on the floor. These paroxysms as they increased in force, increased in frequency; and on the sixth day, came on every five minutes. The slightest touch would bring them on, but she was insensible to noise. The features were contracted in these paroxysms much as in a case of tetanus. Delirium continued, and was only interrupted by the more violent shriek which accompanied the spasm. At the seventh day, all the symptoms began to improve; and at the tenth day, the spots had left. She was quite sensible and free from spinal irritation, but considerably exhausted. She left well at the end of six weeks.

The treatment consisted of frequent application of mustard-poultices down the spine, bark, brandy, strong beef-tea, and eggs. The bowels were frequently acted upon with injections.

Three weeks after M. P. left her master's house, her place was filled up by E. S., aged 18; and she, after retaining her situation three weeks, was seized with a very similar fever. It differed, however, in the absence of any spots, but resembled it in the brain and spinal cord being affected. Opisthotonos here also was well marked; but the fits were never so violent as in the former case. There were the same obstinate state of bowels, and the same contraction of the pupil. Treatment of a similar kind was adopted; but she derived no permanent benefit from it, and died exhausted, after remaining in the hospital two weeks.

These girls were the servants of a farmer, living in a new and healthily-situated house. The water and food are stated to have been good; and there was nothing to warrant the belief that they had eaten mouldy bread or damaged flour, or of a supposition that ergot could have been in their food. Our physician imagined her illness to be owing to exposure to damp and cold, and to overwork during the illness of her master and his family.

No *post mortem* examination was made in the second case.

DUBLIN HOSPITAL REPORTS.

ST. MARK'S OPHTHALMIC HOSPITAL, DUBLIN.

PYRAMIDAL CATARACT.

(Under the care of Sir WM. WILDE and Mr. WILSON.)

A BOY, aged 7, of stunted growth, presents one of the most beautiful examples of this rather rare congenital malformation. Both eyes are affected, and the boy has been blind from birth. Viewed from the front, the eyes present a bluish-white spot in each pupil; but viewed from the side, a small cone is seen to project from the pupil into the anterior chamber. The one on the right side tapers to a fine thread-like point, which appears to be in contact with the cornea; the cone on the left side is more flattened, does not project so far into the anterior chamber, and is deficient in the delicate, almost filamentous, termination of that on the other side. The right cornea is quite clear and transparent; the left one, however, presents a nebulous opacity exactly at its centre. The pupils are very contracted, and react but slightly to atropine, although apparently not adherent; the body of the crystalline lens is opaque on both sides. The case affords another exemplification of the most common origin of this variety of congenital cataract; viz., perforating ulceration of the cornea. When, during intrauterine life, or in early infancy, the cornea ulcerates and bursts the lens, which, at this period, is more globular than in after-life, comes to lie up against the open cornea, and the inflammatory products are poured out on the anterior capsule of the lens. There arises thus a mechanical deposit in the capsule, and also a vital change in the existence of that membrane; there occurs probably a proliferation of the intracapsular cells, and an arrest of development, in consequence of which opacity of the entire lens sometimes ensues. When the ulcer of the cornea heals, and the aqueous humour is reformed, and the anterior chamber becomes restored, the lens is pushed back into its ordinary position, having, however, the newly acquired material on the centre of its anterior surface. The cone always corresponds to the centre of the pupil; and when in those cases the mark exists of the ulceration of the cornea, the cicatrix is always at or close to the centre of the cornea; in the present instance, the cicatrix is still very marked on the left side. Very frequently the cone is irregular, and composed of minute plates of degenerated epithelium and capsule, which present sometimes a chalky or calcareous appearance. In the present case, the cone is homogeneous, but of a much denser and firmer consistence than the lens itself. Keratonyxis has been performed, and a large portion of the lens substance has been absorbed, but the pyramid itself remains quite unaltered.

EXTRACTION OF CATARACT.

There are at present in the hospital six cases of cataract treated by the linear method of extraction, the youngest aged 33, the oldest 70. Four of these were operated on the same day by Von Graefe's method; one man, aged 50, recovered perfectly, and was walking about in his ward in five days; one man, aged 70, affected with capsulo-lenticular cataract (rather rare), was also convalescent in the same period, and enjoying very fair vision. The star-shaped opacity occupied only the centre of the capsule, and will have to be removed by a secondary operation. A third man, aged 40, who was labouring under chronic conjunctivitis at the time of operation, is still (ten days after) confined to bed labouring under iritis; the wound is inclined to suppurate; but, notwithstanding, the man has even now about three-quarter vision, being able to distinguish the faces, etc., of individuals near him. The fourth case is that of a woman, aged 33, with very grey hair, and of unhealthy appearance, who was affected with soft cataract having a hard nucleus. The operation was extremely difficult, owing to the patient's struggling and general uneasiness; had the state of her health been different, and the heart's action been healthy, chloroform would have been administered. The section in this case resulted rather small, and a large hard nucleus was expressed. The struggles of the patient were so great, and the dangers of introducing a spoon so obvious, that further efforts to remove the soft cortical portion which remained after the nucleus were given up. This patient made a good recovery, and was up on the fifth day. There still remains, however, a good deal of the cortical substance, which will require a secondary operation. Von Graefe's extraction is often difficult to carry out in the Irish with the needle-knife in its present straight shape, for the eyebrows of the large majority of the Irish poor admitted to St. Mark's Hospital are very prominent;, or rather, perhaps, the eye of the Celt is small and sunken, and the eyebrow and speculum make it difficult to get at the corneo-sclerotic junction, no matter how much the globe may be drawn downwards. The sunken condition of the eye in the orbit and the very small aperture render the flap-extraction, as well as almost all other operations on the globe, much more difficult in this than in other countries; and it was to meet these difficulties chiefly that Sir William Wilde had his extraction-knives made so short and small in the blade. The difference between the small concealed Celtic eye and the full prominent Teutonic is remarkable; the latter eye almost inviting operation, the former deterring.

RICHMOND SURGICAL HOSPITAL.

TREATMENT OF INTERNAL HÆMORRHOIDS BY THE GAS CAUTERY.

Cases under the care of Mr. WILLIAM STOKES.

[Reported by Mr. J. A. ROSS, L.R.C.S.I.]

THE treatment of internal hæmorrhoids by the gas cautery is becoming the favourite mode of dealing with this affection in Mr. Stokes's wards. In his opinion, it is an operation attended with less risk, and, when the hæmorrhoidal clamp of Langenbeck is applied, certainly less pain, than any other that has been devised for their removal. In no case, either, has the slightest tendency to contraction or narrowing of the rectum been observed after the operation. The following cases, which, among others, have recently been under observation, may be briefly mentioned as strikingly illustrative of these advantages.

CASE I.—William G., aged 42, was admitted into the Richmond Hospital last March. During the last two years, he had suffered from hæmorrhoids, which at times gave him intense suffering. He had a very anæmic appearance, produced, most probably, by the frequent hæmorrhages from the tumour. His bowels, he stated, had been habitually constipated; and each evacuation was attended with very great pain. On these occasions, the tumour invariably protruded; and the subsequent reduction of it was attended at times with much difficulty. The patient's general health was very much impaired from the long continued suffering and frequent hæmorrhages. Two applications of the gas cautery were found necessary to destroy the tumour in this case; and, a week after the second cauterisation, the patient was enabled to leave the hospital and return home. Nothing untoward occurred during his convalescence. In September, six months after the operation, he presented himself for examination; and there was no evidence of any recurrence of the disease, and the patient was in every respect in perfect health.

CASE II.—Jane M., aged 50, was admitted into the Richmond Hospital last June. She suffered from a very large hæmorrhoidal tumour, which gave her great distress, and at times bled copiously. It was one of the largest hæmorrhoidal tumours Mr. Stokes had ever witnessed. In appearance it bore some resemblance to a cluster of ripe purple grapes. This case required three applications of the gas cautery, none of which were attended with any inconvenience to the patient. In truth, on the last occasion, the patient was not aware of the moment when it was applied. The freedom from pain during the application of the cautery was due, as Mr. Stokes observed, to the complete manner in which the tumour was secured and strangulated at its base by the hæmorrhoidal clamp. This patient has occasionally been seen and examined at the hospital since the last application of the cautery; and she has always expressed herself as having been completely relieved, in perfect health, and able to resume her ordinary avocations.

CASE III.—James M., aged 40, was admitted into the Richmond Hospital last August. He suffered great inconvenience from a small cluster of internal hæmorrhoids, from which there was occasionally copious hæmorrhage. He suffered much at times from their becoming strangulated, also from habitual constipation. This hæmorrhoidal tumour was destroyed by the gas cautery at one sitting, and the patient soon afterwards left the hospital quite relieved. In this case, like the last, the patient was not aware of the moment when the cautery was being applied.

In none of these cases was chloroform administered. The only time the patients feel any pain in this operation is during the application of the clamp. It is, however, only momentary.

The following points are of practical importance, and should be borne in mind in the performance of this operation. First, the clamp should be fastened at the base of the tumour, so as to strangulate it completely.

Secondly, a piece of moistened lint should be placed behind the broad blades of the clamp, as they are apt to become too hot if the cauterisation has to be very deep; and, lastly, care should be taken to bring the platinum discs of the cautery to a white heat before applying them to the hæmorrhoidal tumour. If these precautions are taken, the application of the cautery will be found to be *painless*, and the administration of chloroform (which, according to M. Nélaton, is, in this operation, indispensable) quite unnecessary. This eminent surgeon did not, however, employ a clamp previous to the application of the cautery, but used to pass through the base of the tumour a wire, which was held by an assistant, to prevent the hæmorrhoid slipping back into the rectum; and, surrounding the mass by a fold of moistened linen having an opening in it corresponding to the tumour, the cautery was then applied. Performed in this manner, the operation must doubtless have been painful, and necessarily requiring chloroform. The introduction of the clamp must, therefore, be looked upon as a very great improvement.

MATER MISERICORDIÆ HOSPITAL, DUBLIN.

POST-SCARLATINAL DROPSY: CONVULSIONS: DEATH.

(Under the care of Dr. HAYDEN.)

A BOY, aged 16 years, was seen by Dr. Hayden at his father's residence on Saturday, September 12th last. He was one of a family of twelve children, four of whom, including himself, were then suffering from scarlatina or its sequelæ; he was the first attacked, and was convalescent, when, unfortunately, one week after being for the first time out of bed, he exposed himself to draughts in a cold passage. On the following day, the face was observed to be œdematous; and on the next succeeding, the patient was visited by Dr. Hayden. The face was then swollen, especially the eyelids, but no œdema existed elsewhere; urine passed frequently, and in small quantity.

Whilst Dr. Hayden was in the room, the patient suddenly complained of severe pain in the head, shooting through the temples, which he attributed to his having been recently crying, as the result of some petty annoyance; the pupils were now dilated, and the patient vomited a quantity of bile-stained liquid in the course of a few minutes. A most unfavourable prognosis was given; two leeches were immediately applied to the temples; and a pill containing one-tenth of a grain of resin of podophylline was prescribed, one-sixth to be taken every fourth hour till the bowels were well acted on; hot stupes to the loins, and a warm foot-bath.

In the course of the ensuing night he had several epileptiform fits, during which he lost consciousness, and was drowsy in the intervals. Dr. Hayden witnessed one of those fits on the occasion of his visit the following morning; the body and limbs were agitated; the face was pale, and respiration stertorous. The patient was now taken into hospital; the head was shaved, and promptly vesicated by means of vesicating collodion. The fits, nevertheless, continued in rapid succession; and the boy died in the course of that night.

AUTOPSY.—About half a pint of amber-coloured serum was found in the cavity of the arachnoid; the vessels of the pia mater and its inflections were greatly engorged; along the great longitudinal fissure, on the free margin of both cerebral hemispheres, nearly throughout their entire length, a quantity of firm, pale, granular lymph was found beneath the arachnoid; here the dura mater was thick, rough, and adherent to the surface of the brain; no exudation of lymph or opacity of arachnoid at base of brain; no liquid effusion into ventricles, or subarachnoid spaces; brain-substance firm, and not abnormally vascular. Some urine (about four ounces) found in the bladder was smoky-looking; but, unfortunately, it was not tested for albumen, nor in regard to the proportion of urea. Permission to examine the kidneys was not obtained.

REMARKS.—Dr. Hayden points out that this case furnishes a striking example of acute uræmic poisoning. The boy's consecutive illness, from the first appearance of anasarca to his death, extended over a period of about eighty-four hours. Cerebral symptoms were ushered in under the form of sudden and agonising pain in the head, vomiting, and dilatation of the pupils, about forty-eight hours after the first appearance of anasarca, which was confined to the face exclusively. About twelve hours subsequently epileptiform convulsions were superadded, and continued, with very brief intermissions, but without restoration of consciousness, up to the time of death, which occurred thirty-six hours after the first complaint of headache. The result of the *post mortem* examination affords no support to the opinion of Traube, who holds that the cerebral symptoms which follow the retention of urea in the blood are due, not directly to uræmic poisoning, but to subarachnoid serous effusion, or basic cerebral dropsy. It would be a point of great interest to determine to what extent, if at all, the local meningitis at the vertex was dependent upon uræmia, or was the cause of the epileptiform fits.

REVIEWS AND NOTICES.

CLINICAL LECTURES ON DISEASES OF THE LIVER, JAUNDICE, AND ABDOMINAL DROPSY. By CHARLES MURCHISON, M.D., F.R.S., Fellow of the Royal College of Physicians, Physician to the Middlesex Hospital, etc. London: Longmans, Green, and Co. 1868.

ANYTHING from the pen of Dr. MURCHISON is sure to be worth reading, and nothing more sure than lectures on clinical medicine. A systematic, careful, and acute clinical observer, Dr. Murchison is also gifted with a power of conveying his ideas on the subject he is handling with a conciseness not possessed by many; and certainly he has not failed in the present instance. The lectures were originally delivered to the students of the Middlesex Hospital, and are now embodied in a volume of some five or six hundred pages, illustrated with numerous wood-engravings. The general arrangement observed throughout the book is one which, we think, should be more generally followed in clinical lectures. It is founded chiefly upon symptomatology, rather than on pathology. Six lectures are devoted to Enlargements of the Liver, comprising numerous pathological changes. The first lecture, however, contains some admirable introductory remarks on the normal dimensions, boundaries and spurious enlargements of the liver. One lecture is set apart for the consideration of Contractions of the Liver; three for Jaundice; one for the symptom of Fluid in the Peritoneum; and the last invites attention to the subjects of Hepatic Pain, Gall-stones, and Enlargements of the Gall-bladder.

Of the first class of cases, the enlargements of the liver, the chapters on the treatment of hydatid tumours, and the pathology and treatment of tropical abscess, are particularly well worth perusal. Dr. Murchison gives forty-six tabulated cases of hydatid tumour, in which great success attended the treatment by a simple puncture with a fine trocar and cannula, and closure of the opening after evacuation of the fluid. This method he strongly advocates. Of the forty-six cases, three died, in only one of which could the result be fairly attributed to the operation. As to medical treatment of hydatid of the liver, the author cannot see how iodide of potassium or chloride of sodium can have any effect, as the former may be given for weeks, and no trace of iodine discovered in the hydatid fluid; whereas the latter is already abundant in the fluid in which the animals live.

With regard to the pathology of tropical hepatitis and abscess, the author disputes the doctrine of Dr. Budd, that they occur as the result of purulent absorption from ulcerated colon in dysentery, or that the pathology of tropical abscess is identical with that of pyæmic abscess in this country; and shows that, in a large proportion of cases, abscess appeared either without dysentery, or previous to its advent. As to treatment of tropical abscess, Dr. Murchison recommends, in cases where there is undoubted reason to suspect the presence of abscess, the evacuation of the pus, in preference to the uncertain and dangerous practice of allowing the abscess to open of itself. He, however, apparently hesitates to recommend the practice of "prospecting" or exploring the liver, as recommended and practised many years ago by Inspector-General Murray in India, since warmly advocated by Dr. Cameron, and still followed with very considerable success in many parts of India and Ceylon.

On the theory of jaundice without obstruction, Dr. Murchison brings forward objections of considerable weight to the belief that obtains at present in this country—viz., that the liver excretes the bile-pigment from the blood; and that, if it does not perform this function, jaundice takes place. The author here endeavours to prove the fallacy of the doctrine, and of the grounds upon which it is founded. He states that it is very doubtful if any form of jaundice can be attributed to a suppression of the hepatic functions. He then proceeds to consider if a satisfactory explanation can be given of those cases of jaundice in which there is no impediment to the flow of bile from the liver into the duodenum, and observes that they may be either due to the bile-acids being insufficiently oxidised, and forming bile-pigment in the blood, as advanced, but not proved, by Frerichs; or to the bile absorbed by osmosis not undergoing the normal metamorphosis into matters which should probably be eliminated by the lungs and kidneys. We regret that space will not allow us to go more fully into this important chapter. Of the value of the statement, that with jaundice the presence of bile-acids in the urine is indicative of obstruction, Dr. Murchison is very doubtful; and still more so of the value of Dr. George Harley's modification of Pettenkofer's test as demonstrating the presence or absence of bile-acid in the urine.

We have touched on but a few of the important and original observations which occur throughout the volume; but we can most confidently recommend its careful perusal to every practitioner, as containing a comprehensive and most instructive course of clinical lectures on liver-disease and its consequences. There is an amount of ability and thought, founded on large experience, displayed in the consideration of the various subjects treated, which ought to, and we have no doubt will, secure for the author a leading position throughout the medical world as an authority in diseases of the liver, such as he has already secured in another department of medical practice.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 31ST, 1868.

MEDICAL EDUCATION.

WE shall serve an useful purpose if, by a few words, we can help to direct the very earnest attention of medical teachers to the minute just issued by the Council of the Association of Metropolitan Medical Teachers, on the present obligatory conditions of study for the medical profession, and on the constitution and relations of medical schools. It will be well to recal the fact, that this report arises out of a recent debate in that Association on some draft resolutions of Mr. Rivington, and a Report of a Special Committee on the Out-patient Practice of Hospitals in Relation to Medical Teaching. These were referred to a Subcommittee—consisting of the President, Mr. Simon; the Secretaries, Mr. Bentley and Mr. Brodhurst; and Dr. Russell Reynolds, Professor Miller, Mr. Campbell De Morgan, and Mr. Ernest Hart. The reference to this Subcommittee was to consider the conditions of study now imposed on medical students in this country, and whether any, or what, changes ought, in their opinion, to be made in these conditions. The report now issued is the result of their deliberations. It bears the impress, above all, of the philosophic mind and emancipated intelligence of the President, to whose pen, we ought in justice to say, this Report is due. It is a paper which will at once find a place in the history of medical progress. Its details may be objected to; its views may, in some points, be modified; but so surely as medical education is destined to progress, so surely as old prejudices and forms are to be cast off, and our schools to be conducted for the sake of the students and for the advancement of knowledge, and for the interests of teachers and the profit of individuals, so must the principles adopted in this memorandum prevail. There may be a more or less protracted struggle, a conflict of opinion, a doubting, and a hesitation; but we cannot entertain any doubt that the large underlying principles of this report are those on which must be based progress in medical education. They are, briefly—first, the liberation of education from excess of regulations; that is, to allow every possible latitude of choice, consistent with the supposition of *bonâ fide* study, as to modes and places of study, and to leave matters of internal school discipline to be dealt with by each school in its own way. The next point is, to require only a certain period of study, but to make it incumbent on the student to give his various proofs of study progressively, and at intervals, during that time; during the first period of his study, to general scientific knowledge; during the second, to anatomical and physiological knowledge; during the third, to pathological and practical knowledge, including the applications of the first kinds of knowledge. General certificates that the student had satisfactorily studied these subjects would be the passport to examinations. These examinations need great improvement, definition, order, state supervision, completeness, and similarity, enforced by a competent general authority. As a check on the schools, pass and pluck lists, specifying the proportion from each school, should be issued annually. The efficiency of the school would thus determine its prosperity, and the interests of the teachers would be identified with their continuous exertions and fitness for their offices. Such are the outlines of a scheme in which lies the germ of a great future. It must be remembered that general councils or parliaments, however constituted, rather reflect than create opinion, and they only legislate in accordance with opinion. It is, then, for the teachers of the metropolis and the country, and for the profession at large, to think this subject out for themselves. The impulse which they will thus give to the question will speedily be felt in the Medical Council; and, until they have made up their minds, the Council cannot act. We regard the Report of the Medical Teachers' Association as a document of great and permanent interest; we earnestly commend it to the attention of the members of the Association, and we recommend that it be put on sale for general circulation.

A SANITARY LEGISLATOR.

MEDICINE, like science, knows no party; and when in our columns we urge our members to support physicians such as Sir Dominic Corrigan, Dr. Brewer, Mr. Clement, Dr. Humphry Sandwith, Mr. Brady, Mr. Vanderbyl, Mr. Alfred Smee, in their candidature for Parliament, we do so in those interests which are dear to us as members of a common profession aiming at improvements in legislation on public health, and in all that can affect the physical and mental welfare of the people. With the same common interests in view, we feel it a duty to call attention to the present circumstances of the candidature of a statesman to whom the country is most largely indebted for such progress as has been made in the recent legislation which aims at the prevention of disease and the amelioration of the sufferings of the sick poor. The man to whom we allude is the Right Hon. Henry Austin Bruce, the representative for Merthyr Tydfil in the late Parliament. Though he has done so much good, not only for Merthyr itself, but also for the country at large, yet his seat for that borough is at the present time in jeopardy. The men of Merthyr, and of the other places which by the last Reform Bill were joined to it, most of whom are working men, and therefore belong to the class which has derived the greatest portion of the benefits resulting from Mr. Bruce's indefatigable labours, do not seem to be giving him that support which they, in common gratitude, should accord to him. It is right that we should recall some of the many good measures which this representative of a mining borough in Wales has brought forward and supported successfully in his place in Parliament. They are such as the members of our profession are well qualified to appreciate.

In 1864, Mr. Bruce introduced a Bill, which afterwards became law (the 27th and 28th Vict., c. 48), for greatly extending the operations of the Factory Acts. By this measure, great relief was afforded to the persons engaged in several manufactures—to the workers in the potteries, in lucifer match-making, in percussion cap-making, in cartridge-making, in paper-staining, etc. It brought to the hands engaged in these and other trades better health, by shortening the hours of their employment, especially of the women and children; it compelled the education of the children, and forbade their being employed at all until they were eight years of age. These provisions were in themselves very beneficial, even in a monetary point of view; for they made consequent the employment of more men, and this demand would give rise to higher wages. But this was not the only feature of the Act; for it, in addition, required that the workplaces should be properly cleaned and ventilated, and that all hurtful dust and noxious vapours should be prevented from harming those who were, until then, exposed to their full influence; thus bringing the interiors of factories under the strictest health-regulations.

Then, again, in 1866, he, with other members of the Government, introduced the Vaccination and Public Health Bills of that year. But, shortly after their introduction, the Ministry was changed; and the former of these two measures was not proceeded with by the new Ministry, though the latter Bill was carried through Parliament, and became the well-known Sanitary Act of 1866 (Vict. 29 and 30, cap. 90). And here we think no small credit is due to Mr. Bruce, in that he rose above the feeling of party, and not only abstained from hindering the new Government in carrying this measure, which was peculiarly his own, but aided them in every way possible, to the total abnegation of all self. That Act enabled local authorities to provide hospitals for those who could not afford to have efficient medical treatment in their homes; it made the homes of the working classes comfortable; it provided against the avarice of unscrupulous landlords, by preventing, under penalty, overcrowding in the habitations of the poor, and compelling the proper construction of their dwellings; it enabled local authorities to provide in every place good drainage and good water for the inhabitants; it directed the local authorities to periodically see to the removal of all nuisances; and it also gave to Government power to compel them to perform the duties which were so very beneficial to those whose means would not allow of their providing all that was necessary in this respect. In short, the Sanitary Act did all that the legislature could do for securing to all pure air, pure water, comfortable homes, and good health.

Again, last year, he, with the same disinterestedness which had characterised his conduct in regard to the Sanitary Act, assisted the Government to pass an Act which, for its benefits to the working classes, has never been surpassed. The Act we refer to is the Workshops' Regulation Act 1867 (30 and 31 Vic., cap. 146). The effect of this Act was to extend the principal and most beneficial clauses of the Factories Acts to all manufactures and trades carried on in factories and shops. It affected not only the hands engaged in those huge manufactories which are everywhere to be met with in this country, but also to those shops and places where so many young girls and women are employed as milliners and sempstresses. It shortened the hours of those so employed; it regulated their sleeping apartments; it regulated their workrooms; in fact, it has dealt a fatal blow even to death itself, for we believe that it will tend to decrease the mortality from consumption, which is so very prevalent and fatal amongst the needlewomen of this country. As proof that the Act is not like many which have for their objects the benefit of mankind, we may state that successful proceedings have been taken under its sections; and in the cases where such a step was necessary, the condition of workers has been considerably ameliorated.

We will put it to our professional brethren, and especially to those who live in the borough which has been represented by Mr. Henry Austin Bruce, is not Mr. Bruce entitled to receive at our hands the most energetic assistance which it may be in our power to afford him; and especially by calling attention to those measures which have of late years had so very special reference to the improvement of the health of the working classes, by ameliorating the conditions under which the bread-winners of this country have to pursue their various avocations? Every class of workers has benefited by his philanthropic exertions: women, and even children, as well as their hardy companions men, have been thought of; all alike have been toiled and worked for by Mr. Bruce without any other reward than the pleasure which such a man must feel at having helped to allay suffering, sickness, and distress.

We think it would be a disgrace to the borough of Merthyr Tydfil, and one which will be felt by working men throughout the country, if Mr. Bruce—essentially the friend of the working man, and the most practically useful of our legislators in their behalf—be not returned at the coming election by the men for whom he has done so much.

THE PRICE OF BREAD IN DUBLIN.

In the absence of more exciting topics, the price of bread in Dublin has lately excited the feelings of newspaper editors and heads of families. It appears, that in Dublin the price of the four-pound loaf is somewhere about two-pence dearer than the same, or an equally good, article in Belfast; and people very naturally begin to ask why this difference exists, and why it should be permitted to continue? This difference in the price of so universally used an article as "the staff of life," cannot be accounted for on any fair trade principle; and it is especially inexplicable, because there is no such great difference in price between the household bread in Belfast and that in Dublin, as is found in the case of the superfine quality, which is the bread to which we have referred above. We are led to notice this, because, although bread concerns everybody, the hygienic aspect of the question concerns the medical journalist especially; and we wish every success to the efforts of the daily press which have been recently directed to the abolition of this abnormal state of things, one which is very likely to affect the health and growth of large numbers of children and young persons.

We fully coincide in the sentiments of one Dublin daily paper, which, in discussing this question, concludes thus:—"There are only three ways of accounting for the differences between the Belfast and the Dublin prices. Either, the very best quality of bread in Belfast is inferior to the household or second quality in Dublin; the Dublin millers and bakers are unable to compete with those of Belfast; or, the Dublin bakers are charging an exorbitant price. The public will not accept the first explanation without very substantial proof, and as neither the bakers nor the millers are likely to put in the second plea, the public are forced to conclude that they are victimised. Whether the fault lies with the miller or the baker remains for those in the trade to elucidate." This question is just the kind of one likely to engage the attention of Sir Dominic Corrigan, should he be returned for Dublin; and the citizens may not be sorry to have one so well qualified as he is to look after both bread and water. The water is dear and dirty. It ought to be cheap and clean. The bread is dear; it ought to be cheap also.

* * *

The sum of £3500 was collected last Sunday throughout the churches and chapels in Birmingham in aid of the General Hospital.

Dr. Lane, R.N., of Worthen, Shropshire, is a claimant of the Irish title of Viscount Lanesborough, which has been in abeyance for two hundred years.

The Treasurer of the York County Hospital has received £44 : 10 : 3 from the Dean of York, being the amount collected at York Minster, after a sermon by the Archbishop of York.

Dr. Gatehouse of Sark being about to establish himself professionally in the island of Alderney, and desirous of proceeding thither with that view, joined a boat party returning from Sark to Guernsey, and (with the whole party, five in all) was lost. He has left a widow and three children.

Two of the Northamptonshire magistrates having mooted the question of providing a building for the reception of the pauper idiots of the county, a committee, consisting of Lord Henley, the Hon. F. W. C. Villiers, Sir Geoffrey Palmer, Bart., H. M. Stockdale, Esq., and the Rev. H. J. Barton, was appointed at the last quarter session "to inquire into the present arrangements for the custody and maintenance of the idiots in the county, and to report to the quarter sessions any alterations therein which may seem advisable."

THE PRINCESS OF HESSE.

The accouchement of Her Royal Highness the Princess of Hesse is expected in about ten days. On Monday next, Dr. Brodie, one of the physicians of Queen Charlotte's Hospital, will start for Darmstadt, in order to be in attendance.

THE PRINCESS OF PRUSSIA.

The short stay of the Princess of Prussia and her children at Hastings is no way connected with any failure of health, but is dictated solely by the desire for sea-air (not easily to be had at any convenient spot near her home), and reasons of temporary convenience connected with the existing locality at the moment of the Queen's Household. The health of the Princess and her children is excellent.

THE PRINCESS OF WALES.

The Princess of Wales paid last week a private and quite unexpected visit to the Children's Hospital, showing a deep interest in the little patients, to whom she talked freely (they being unacquainted with the rank of their visitor), and examining with care and pleasure the arrangements for the welfare of the sick children.

THE RECENT BOILER EXPLOSION IN THE HAYMARKET.

The sufferers at the late boiler explosion in the Haymarket are all doing well. Ellen Leonard, who was not expected to survive, is now progressing favourably.

THE GARRISON OF BERMUDA.

WE learn, from a trustworthy correspondent, that, at Bermuda, the past summer has witnessed the repetition of the story of fatal fever engendered through mismanagement of the troops. The fortification mania is now very active in that distant colony. Formerly, convicts were sent there to construct the massive stone walls and to perish of yellow fever; but now, when fighting men are becoming more costly, our soldiers are ordered to finish the task which convicts began; and it would seem that, unless public opinion interpose some check, we must not be astonished to receive worse tales than ever of the fate of our regiments located there. Late in April last, when the summer heat had commenced, the 1st battalion of the 15th Regiment arrived there from the cool shores of New Brunswick, where the men were clad in fur up to the time of departure. On arrival at Bermuda, four companies were encamped in a narrow valley on the southern shore, and set to construct a military road. An almost tropical heat and exhausting labour speedily induced "sunstroke", "febricula", diarrhœa and dysentery—the diseases which history shews to have been the invariable forerunners of the sickliest seasons. The sanitary state of the camp-ground soon deteriorated, The thin surface soil, strewed over the stalagmitic rock, became saturated with camp-refuse acted on by moisture, and by heat such as we ourselves have endured this summer. Continued fever took the place of febricula, and soon showed the characters of typhoid, and probably, ere long, would have appeared true yellow fever, but for the breaking up of the camp at that spot, and the removal of these companies into the old convict quarters in Boaz Island. The ratio of mortality had been considerable among the men. On their arrival at the barrack on Boaz Island, a detachment of the 61st Regiment, stationed there, were sent to carry on the making of the military road, at another point of its course on the northern side of the island, and, being more acclimatised, they did not suffer in an equal degree with the 15th, which had come fresh from New Brunswick. The cool season had commenced when the mail left, and there was an amendment of the public health. It is satisfactory to know that the inhabitants have escaped the horrors of an epidemic.

THE CARE OF THE WOUNDED IN BATTLE.

SIX additional articles have been added to the supplementary articles of the Geneva Sanitary Convention. They extend to maritime warfare most of the conditions of the former convention, and enlarge and define some of the former articles.

UNHEALTHY HOUSES.

AT the last meeting of the Islington Vestry, Dr. Edward Ballard, the Medical Officer of Health, made a first report under Mr. Torrens' Artisans' and Labourers' Dwelling Act, to the effect that certain premises in the parish were in a condition dangerous to health, so as to be unfit for human habitation. After much discussion, it was resolved to adjourn the consideration of the matter till next week.

A LAMENTABLE STORY.

ON Wednesday last, Dr. Diplock, the Coroner for West Middlesex, opened an investigation into the circumstances attending the death of Louisa Thomas, aged 24. It appeared that on Monday night, about seven o'clock, the deceased went into the consulting-room of Mr. Powell, surgeon, King's Road, Chelsea. At about twenty minutes to ten, Mr. Powell came out of the consulting-room and sent a letter to Mr. Turner, of Paulton Square. Mr. Thomas Turner, a surgeon, residing at 56, Paulton Square, in consequence of the letter, went to Dr. Powell's house. The door of the consulting-room was locked; and Inspector Passmore, who accompanied him to the house, broke it open. On the floor of the room, he found the deceased dead. The letter stated that Dr. Powell had been intimate with the deceased for some time. Mr. R. W. Sanneman, F.R.C.S., in conjunction with Dr. Hunter, had made a *post mortem* examination of the body. The deceased was two months advanced in pregnancy. An attempt had been made to procure abortion. The deceased suffered under disease of the heart. He did not say that death was caused by the attempt to procure abortion; but he thought that, as deceased was suffering from disease of the heart, the excitement consequent upon the attempt to procure abortion might have accelerated death; and it was just possible that she had died from natural causes. He did not think chloroform had been administered. There was no sofa in the room. Further evidence was given to the effect that Dr. Powell had left his residence, and was not to be found. The Coroner summed up at length. When a person was suffering under a disease, and death was caused partly by that disease and partly by the act of another person, that party could not apportion the blame partly to the disease and partly to his own acts. In the ey of thee law, he was responsible for his acts, particularly if they accelerated death. After an hour's deliberation, the jury returned a verdict of "Wilful murder" against Dr. J. Powell.—It is stated that the body of a gentleman has been found on the railway near Willesden, which answers in many respects to the description given of Mr. Powell; and that he had committed suicide by throwing himself upon the line before an approaching train.

THE BEAUMONT MEDICAL SOCIETY.

THE annual meeting of the above Society took place on Tuesday evening last; Dr. Herbert Davies in the chair. Nearly fifty gentlemen were present, and the proceedings were throughout characterised by a spirit of cordiality; in fact, the *réunion* proved a decided success. This Society was formed comparatively recently for the purpose of resisting certain encroachments on the customary rules appertaining to professional etiquette. The desired end having been obtained, it was determined to establish permanently a society which affords to the medical practitioners at the east end of London an arena for the discussion of all subjects affecting the theories and practice of medicine,—its politics and ethics. The members already number over eighty, and there is every reason to believe that the Society will flourish.

GLASGOW AND ABERDEEN CONSTITUENCY.

THE constituency of the Universities of Glasgow and Aberdeen numbers about 4,350, that of Glasgow being 2,360, and Aberdeen 1,988. Of the total constituency, about 1,500 have been added since the new Act was passed, and of this number nearly one-third are Doctors of Medicine.

THE CANADIAN MEDICAL ASSOCIATION.

THE first annual meeting of the Canadian Medical Association was held in Montreal, on September 2nd, 3rd, and 4th. This Association, which was formed at Quebec in October 1867, on principles similar to our own, already shows signs of marked success. The attendance was large and influential, more than a hundred strangers being present. The President, the Hon. Dr. Tupper, C.B., was unanimously and most deservedly re-elected. We cordially wish the Association all prosperity.

THE MEDICAL LIST IN THE LONDON DIRECTORY.

WE have been informed, on good authority, that Messrs. Kelly, Publishers of the *London Directory*, a leading member of which firm is a member of the legal profession, have determined to expunge in future editions of that work, from the list comprising the names of Physicians and Surgeons, the names of those not registered under the Medical Act of 1858. An *unregistered* person cannot sign a valid certificate, hold legally any public appointment, or recover for fees. One clause of the Medical Act also especially stipulates, that, "legally qualified," or, "duly qualified" Medical Practitioner shall be construed to mean a person registered under the provisions of this Act (Medical Act 1858). Acting in the spirit of this law, Messrs. Kelly have resolved that the *London Directory*—now an universal and invaluable standard book of reference—shall be so compiled as to conform strictly to the state of the law, and registered practitioners will, for the information of the public, be duly distinguished as such. The army of trading quacks will be excluded, and a glance at the *Directory* will suffice to put the unwary on their guard. This will be a veritable service to the public, and a matter of satisfaction to the profession, who have hitherto had the mortification of seeing the most unworthy and evil-minded pretenders ranged under assumed titles to which they had no just claim, and included in the published lists of an honourable profession in the *Directory*. Thus the extremely limited general circulation of the *Medical Register* will be partially remedied. To avoid injustice in the present state of the profession, Messrs. Kelly have resolved to publish a separate list of those persons who, possessing the necessary and in some cases the highest qualifications, yet for various reasons do not practise medicine, and have not entered their names on the Register.

THE CORRECTIONS IN THE BRITISH PHARMACOPŒIA, 1867.

THE following slip of corrections has been inserted in the *Pharmacopœia*. They are of no practical moment; still those who have the work might wish to make those slight alterations, and we print it in the JOURNAL in order to afford them the opportunity of doing so.

At page 20, line 6 from bottom, *for* 10·14 *read* 11.14
,, 130, ,, 17 ,, ,, 57 ,, 37
,, 150, ,, 9 ,, ,, 8 ,, 28
,, 193, ,, 4 from top, *for* $PbC^2H^3O^2$ *read* $Pb^2C^4H^6O^5$
,, 400, bottom line, *for* Tart. Dil. *read* Tart.
,, 27, between lines 8 and 9 from bottom *insert* Emplastrum Cantharidis
,, 51, between lines 5 and 6 from bottom *insert* Tincturæ Cinchonæ composita
,, ,, between lines 6 and 7 from bottom *insert* Spiritus Armoraciæ compositus
,, 114, beneath bottom line *insert* Unguentum Belladonnæ
,, 171, after line 11 from top *insert* Oleum Lini

AN HISTORICAL INCIDENT.

THE papers of Wednesday mention the death of Mr. Alderman Partridge of Colchester. He had been surgeon to the Essex and Colchester Hospital for upwards of forty-two years, and died on the 24th October, after a lingering illness. Though the notice of his decease may attract little attention at the present time, it is a remarkable fact that just forty years ago his name was one of the most familiar in the profession, and was conspicuously before the public. It happened that Mr. Partridge was in London at the time Mr. Bransby Cooper performed his celebrated operation on Samuel Pollard, and was present at that proceeding in the theatre of St. Thomas's Hospital. When Mr. Cooper brought his action for libel against the late Mr. Wakley, Mr. Partridge volunteered his evidence for the defendant. That evidence, given in a straightforward and clear manner had, no doubt, much effect in reducing the damages, which were laid at £2000, to only £100. Sir James Scarlett, the most skilful advocate of his day, cross-examined Mr. Partridge for the plaintiff; but the witness was proof against the great lawyer, and his original statement remained unimpugned. He was the most important witness for the defence. Mr. Partridge was an able surgeon, and had performed most of the capital operations in surgery. He was highly esteemed by his fellow-townsmen, amongst whom he had laboured successfully for so long a period.

THE RESULTS OF OUR REPORT ON THE HERBERT HOSPITAL.

WE had occasion, some months since, in a special report on the treatment of the sick in the Herbert Military Hospital, to draw attention to two especial and serious defects: 1, the excessive independence of the nurses, over whom the medical officers had no direct control; and 2, the frequent slighting of the medical officers, and their consequent want of interest in, and knowledge of, the cases they had to treat. Prolonged inquiry and partial remedies followed our report. We are happy now to learn that, by order of Sir John Pakington, the Secretary at War, more complete and final measures are being taken. Nightingale nurses will be supplied; the regimental medical officers will retain control over their cases; and the resident medical officers will be better provided for, and less frequently shifted. This result is one on which we congratulate the medical department and the sick soldiers, and which we feel well satisfied to have contributed to bring about. The great defects which we noticed in the small-pox wards were remedied forthwith.

IRELAND.

SIR DOMINIC CORRIGAN, BART.

SIR D. CORRIGAN has definitely entered the field as a candidate for Dublin. His address, which appeared in the Dublin papers on the 27th instant, is brief and concise; it is evidently written by himself. On the Church question he says, "I will vote for the disestablishment and disendowment of the Established Church of Ireland"; and on the Education question he adds, "I will support and advocate freedom of education." We are very glad to learn that Sir Dominic will obtain substantial support from the profession, several prominent members of which, including Dr. Lyons, Dr. Robert M'Donnell, Dr. Mapother, and Dr. William Stokes advocate his return on strictly professional grounds. In another column we publish the circular issued by his medical friends. We earnestly trust that the candidature of Sir Dominic Corrigan will meet with energetic support throughout Dublin, and in the profession in the United Kingdom. He will be a distinguished and most able representative of the interests of science, of the progress of measures tending to promote public health, to advance medical education, to elevate the position and improve the organisation of the medical profession, and to push forward those many important legislative questions in which the position of the Poor-law medical officers and the interests of the sick poor are so largely mingled. In our Association, party has no place; in our columns, it finds no voice. Let us all heartily combine to aid those who are setting a noble example to their profession by combining on this common platform to help into Parliament a man who will do honour to our profession, who will serve the interests which, as members of a common profession, we have at heart, and through whom our calling will have an influential and respected voice in the legislature. It would be a graceful and a proper tribute to this common bond, if some of our English associates, who are well acquainted with the public spirit and manifold capacity of Sir Dominic Corrigan, were to join our Irish brethren in this effort to send to Parliament that distinguished member of our Association. We shall be very happy to receive names of those willing to give this earnest of our hearty union with the profession in Ireland, and our sympathy with the objects which they have in common with us.

THE WATER-SUPPLY OF DUBLIN.

DR. CAMERON, City Analyst, has just published, for the benefit of the corporation, a Report on the state of the much abused Vartry water, with which the city and suburbs are supplied. Among other conclusions at which he has arrived, we learn that, according to his calculation, so large a sum as £10,000 a year will be saved by the citizens in the matter of soap, much less of that article being required to wash in the Vartry water than in the canal water previously in use. Dr. Cameron further finds, that the Vartry water is much better adapted for making tea than that hitherto used; and he gives it as his opinion that when the incrustations of years, which have accumulated in the old main pipes, have been washed away by the increased water-power of the Vartry (and, we may add, when they have been consumed by the people of Dublin), the water coming from that despised, and in the minds of many, mythical stream, will be found to be useful and conducive to health.

CARMICHAEL SCHOOL OF MEDICINE AND SURGERY.

THE Session was opened at this School on Thursday, the 29th instant. There was no Introductory Lecture, as in former years; but the proceedings consisted in awarding, for the first time, the "Mayne Scholarship"; and in distributing the usual Carmichael Premiums. We hope to give full particulars in our next.

REPRESENTATION OF DUBLIN UNIVERSITY.

THE Attorney-General, Mr. Robert Warren, retires from the representation, being, as is generally understood, about to succeed Judge Keatinge, as Judge in the Consistorial Court, the learned Judge retaining his Judgeship for a short time, for the purpose of trying a celebrated will case in which the jury disagreed some months ago; but which Mr. Warren could not try, he having been counsel in that case. It is further said, though apparently without any good foundation, that Mr. Lefroy, M.P., will also retire from the representation. Besides, Dr. Neil, F.T.C., mentioned in our last, there are Sir Edward Grogan, Bart., Mr. Purcell, Q.C., and Mr. Ball, the new Solicitor-General. The last-named eminent lawyer is one of those lucky individuals who manage to change sides just at the right time. He stood for the University as a Liberal a few years ago, and now does so as a Conservative Government Law Officer. By the passing of the Reform Act, every Doctor, Master, Fellow, Scholar or ex-Scholar, will be entitled to vote, without any registration fee of £5 as formerly. This will so enlarge the constituency, as to render it difficult to say how the election may turn out.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS OF IRELAND.

IN consequence of the unexpected resignation of Dr. Guinness, the Honorary Secretary, during the proceedings of the meeting reported in our last, it was found necessary to appoint his successor at the close of the business of the evening. On the motion of Professor Law, Dr. James Little was unanimously elected Honorary Secretary in the room of Dr. Guinness, to whom a cordial vote of thanks was given for his valuable services and his invariable courtesy while he held office. The following were elected members of Council for the coming session. Lombe Atthill, M.D.; Thomas Fitzpatrick, M.D.; Samuel Gordon, M.B.; Thomas Hayden, F.K.Q.C.P.; Henry Head, M.D.; John Hughes, L.K.Q.C.P.; Geo. Johnston, M.D.; Henry Kennedy, M.D.; Robert Law, M.D.; William Moore, M.D.; Thomas Beatty, M.D.; James Wharton, L.K.Q.C.P. Honorary Secretary, James Little, M.D. The constitution of this Society is somewhat peculiar. It was instituted in 1864; and is a revival of the "Association of the Fellows and Licentiates of the College of Physicians," which was founded in 1816, and was dissolved in 1864 to make way for the present foundation. This was formed "for the purpose of more intimately uniting the Fellows, Honorary Fellows, and Licentiates. Subscribers to the Reading-room, and none others, are *ipso facto* members; and meetings for the reading and discussion of papers are held on the third Wednesday of each month, from November to May inclusive. The Reading-room, through subscription to which the Fellows and Licentiates become members of the Medical Society, is open to all Fellows, Honorary Fellows, and Licentiates. Members resident in Dublin, or within twelve miles thereof, pay £1 entrance, which includes subscription for the first year; and ten shillings *per annum* for succeeding years. Fellows and Licentiates, residing more than twelve miles from Dublin, pay five shillings *per annum*. All subscribers have free use of the library. The President of the College is *ex-officio* President of the Society; and, in his absence, some member—generally an ex-President—takes the chair, on the motion of any person present. There is no Treasurer, all expenses being defrayed by the College. Any member may invite a member of the profession to a given meeting, and non-professional persons may, in like manner, be invited by special permission of the Council.

SCHOOL OF SURGERY OF THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE Medical Session was opened in this School on the 26th instant by an introductory lecture from Professor Hargrave, in the theatre of the College. There was a large number of the profession and of students present; and the chair was taken by the President, Mr. Porter. The learned professor's lecture, which was given at some length, and was listened to with deep attention, urged on students the necessity of continuous hospital attendance during the course of medical study. He touched on the necessity of providing a legal superannuation for Irish Poor-law medical officers; quoted Pericles, Dr. Johnson, and Gibbon; and concluded with the dictum of Cardinal Richelieu, "Nothing is impossible to a young man." At the conclusion of the lecture, an unanimous vote of thanks was given to the learned professor. Professor Mapother then commenced his course on Comparative Physiology, stating that the opening lectures would be open to the public.

MR. ROBERT ADAMS.

DR. ROBERT ADAMS—or, to use the Dublin medical phraseology as applied to surgeons, in distinction from physicians—Mr. Robert Adams, whose patent as Regius Professor of Surgery in the University of Dublin we noticed in our last, has held virtually the same office since 1861, when he was appointed University Professor of Surgery in succession to the eminent Mr. Cusack, then deceased.

SCHOOL OF PHYSIC, UNIVERSITY OF DUBLIN.

THE Rev. Professor Haughton, M.D., Registrar of this School, attends daily from 2 to 3 P.M., to matriculate students in medicine, agreeably to the provisions of the School of Physic Act, 40 Geo. III, cap. 84. There is not any religious or educational test imposed previously to matriculation; but students so matriculated enjoy certain privileges not conceded to non-matriculated medical students. The fee payable is five shillings.

DR. STEEVENS'S HOSPITAL AND MEDICAL COLLEGE.

THE Session will be formally opened on Tuesday, November 3rd, at 12 o'clock.

THE ADELAIDE HOSPITAL.

THE Introductory Lecture at this hospital will be given by Mr. B. Wills Richardson, F.R.C.S.I., one of the surgeons, and Secretary to the Surgical Society.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

IT has been determined not to have the usual Introductory Lecture at these clinical hospitals this session.

MATER MISERICORDIÆ HOSPITAL.

THE Introductory Lecture will be given by Mr. Henry Curran, one of the surgeons, on Wednesday, November 4th, at 1 P.M.

CITY OF DUBLIN HOSPITAL.

THE Introductory Lecture will be delivered in the theatre of this hospital, on Tuesday, November 3rd, at 4 P.M., by Dr. J. H. Benson, one of the physicians.

IMPROVED MODE OF AMPUTATION.

THE double rectangular flap, or Teale's mode of amputation, has become deservedly popular; but an improvement has been suggested by Mr. Wharton of the Meath Hospital, Dublin. It is simply to omit the short flap and divide the bone on a plane corresponding to what would be the lower extremity of the posterior flap of Teale's operation. A saving of bone clearly follows. It has been performed several times on the dead subject, and with admirable results. It would be well that other surgeons should judge of the plan from operations on the dead body.

THE SMALLEST OF SALARIES.

MANY of our Irish readers must have been surprised to see a salary of £36 offered for the attendance on the Coolock Dispensary, near Dublin. However, we understand that it has been always held in conjunction with that at Howth, and Dr. FitzGibbon has just been appointed to both.

SAFE PETROLEUM.

FROM a report just made to the Corporation of Dublin by Dr. Cameron, city analyst, it appears that none of the petroleum stored in that city gives off an inflammable vapour under 114 deg. It is therefore outside control of the special acts.

REPORT

ON THE

MINERAL WATERS OF COMMERCE:

WITH ANALYSES AND COMMENTS.

I.—SODA-WATER.

"SODA-WATER" is an article of large commercial use in this country. It owes its popularity probably to two causes: its agreeable qualities as an aërated water; and the belief which the name invites, that its alkaline composition is of use in correcting acidity, and in aiding digestion. Much of that which is commonly sold consists of ordinary water charged with carbonic acid. Five out of fourteen kinds of soda-water examined recently in London, contained rather less saline matter, or solids in solution, than is to be found in the water which is supplied by the Thames and New River Water Companies, for the ordinary use of the metropolitan consumers. Excluding Blake's, the remaining kinds were by no means rich in saline constituents. The richest of them contained only 160.3 grains of solids to the gallon of water, being at the rate of 11 grains of solids dissolved in a bottle of soda-water. (It was ascertained, by making measurements, that the average capacity of a soda-water bottle, filled to the usual extent, is ten and a half fluid-ounces; obviously, a bottle of soda-water is intended to be a good half-pint.) Moreover, not more than about half of the 11 grains of solid matter consisted of carbonate of soda. The term "soda-water" is thus seen to be rather a misnomer. The five kinds of soda-water found to be almost pure "aërated water", contain the following amounts of saline constituents.

	Number of grains of solid matter contained in a gallon of water.*
Best and Co.; sample bought of Best in Henrietta Street	14.7
Soyer; bought at Luck's, 117, Tottenham Court Road ...	17.5
Hearn; bought at Broad Street, Bloomsbury	17.5
Clayton; bought at 419, Oxford Street	18.2
Codey; bought at the Globe, 2 and 3, Oxford Street	15.4
For comparison, the average London water-supply is subjoined	20

The water with which these kinds of soda-water were made, may have been London water previously boiled; or it may have been natural water which contained little solid matter; or it may have been distilled water which was subsequently slightly charged with solid matter. It is, however, noteworthy that, although distilled water is often made containing less than one grain of solids per gallon, yet we have never met with soda-water of anything like such a degree of purity. Perhaps pure water charged with carbonic acid attacks glass with rapidity.

The next kinds of soda-water, ranging them according to the solid contents, are:

	Grains per gallon.	
	Total solids.	Alkalinity expressed in carbonate of soda.
Rawlings; bought at 6, Charles Street	34.3	20.7
Hogg; from 9, Albion Place, Hyde Park Square	32.9	18.6

The label on Hogg's soda-water is marked 15 grains of bicarbonate of soda to the bottle of water. Obviously, this is a mistake. According to the above determination, a bottle of Hogg's soda-water does not really contain so much as 3 grains of bicarbonate of soda.

The next in order are those made by Schweppe and Ray.

	Grains per gallon.	
	Total solids.	Alkalinity.
Schweppe; bought of Best in Henrietta Street	47.6	37.2
Ray; bought of Benoit and Davidson, 17 and 18, Upper George St., Bryanston Sq.	72.8	58

The following five present, in each instance, some peculiarity worthy of note.

	Grains per gallon.	
	Total solids.	Alkalinity.
Stiles; bought of Willcox, 336, Oxford St.	97.3	54
Webb; bought of J. Bell, 338, Oxford St.	107	41.3
Mayo, Watson, and Co., Berners Street; bought of Best in Henrietta Street	114	33
Blake; from the maker's	162	155.5
Hooper, 7, Pall Mall	160.3	82.0

"Stiles" contains a considerable quantity of lime, equivalent to 29.4 grains of carbonate of lime in a gallon of the water.

"Webb" contains a quantity of chlorides, equivalent to 42.5 grains of chloride of sodium per gallon of water. This kind of soda-water is in high favour.

Mayo, Watson, and Co.'s soda-water is remarkable for the large proportion of total solids compared with the alkaline carbonate which it contains.

Blake's soda-water has been repeatedly examined. Each of four bottles obtained from the makers has been found to be accurately of *Pharmacopœia*-strength. An old sample, however, was found to contain about eleven grains of bicarbonate to the bottle. We are informed by Messrs. Blake that they used to employ four-fifths of the quantity of bicarbonate.

Hooper's water resembles Webb's in containing a considerable quantity of chlorides. Both are excellent specimens of soda-water, and very agreeable in flavour.

All the soda-water we have examined was fairly charged with gas. A faint smell of sulphurous acid was observed in some instances. This is probably not an objection; a very small quantity may even be beneficial. A very much more objectionable thing is, the disagreeable, almost fœtid, smell of dead soda-water, which is so well known. This, which varies greatly according to the particular make, is no doubt owing to the trace of organic matter originally present in the water used for the manufacture of the soda-water. With the object of avoiding this, it would be quite worth while to have recourse to certain deep spring waters, which have been shown to differ from all exposed waters by being perfectly free from organic contamination.

For the use of medical practitioners who desire to prescribe soda-water as an alkaline drink, we subjoin the following table, computed from the above analyses, giving the dose of alkali in a bottle of different kinds of soda-water. The alkali is expressed both as neutral carbonate of soda ($NaOCO^2$) and as bicarbonate ($NaOHO\ 2CO^2$). A bottle of the following kinds of soda-water contains the following number of grains of alkali.

	Carbonate of soda.	Bicarbonate of soda.
Rawlings	1¼	2
Hogg	1⅛	1¾
Schweppe	2¼	3⅜
Ray	3⅝	5½
Stiles	3⅜	5¼
Webb	2⅝	4
Mayo, Watson, and Co.	2	3
Blake	9¾	15¼
Hooper	5⅛	7¾

[Mr. Hogg informs us that he has been induced to lessen the quantity of soda in his soda-water, from time to time, in deference to the wishes of his customers, amongst whom are several medical men; and still having a stock of old labels on hand, they have been used without correction.]

SPEAR *v.* DOIDGE.

THE following circular has been issued by the Committee formed in respect to this case.

It has been suggested that a subscription should be made for the purpose of helping to defray the heavy expenses (about £500) incurred by Mr. J. G. Doidge, of Lifton, in the defence of this action, in July last, for alleged maltreatment in a most difficult surgical case. A verdict was given against the defendant, but the general opinion of the profession is that Mr. Doidge has been unfairly treated, and that there was no evidence to show that the most skilful surgical treatment would have resulted differently.

A local Committee has been formed for carrying out the suggestion; and, as the case is one that might happen to any member of the profession, it is hoped that a generous response will be given to the appeal now made.

The profession are hereby reminded of the nature of the accident which befell the plaintiff. His right arm was entangled in a threshing machine, worked by three horses, the result being a comminuted fracture of the ulna, a little below the elbow, a dislocation of the radius forwards, with probable fracture of that bone, severe contusion of the soft parts above and below the elbow, and a punctured wound in front of the elbow, involving the median vein; the amount of inflammation and swelling which soon arose endangered the patient's life, and, being of an excessively irritable habit, he insisted on the removal of all splints and bandages, by which the limb had been kept in position.

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* The solids in water are carbonate and sulphate of lime and common salt, etc.

The plaintiff eventually recovered with a straight arm, and the radius dislocated, a condition for which the jury considered the defendant responsible.

The great difficulty experienced by all surgeons in the management of severe injuries of the elbow joint, especially when of a comminuted character and attended by considerable swelling, increased as in this case by the irritable habit of the patient, makes the position of Mr. Doidge one calling the more strongly on the sympathy and support of the profession. If in every case of extreme difficulty, after a surgeon has done his best (and probably the best that skill and attention could do under the circumstances) he is to be subjected to an action, and, like Mr. Doidge, to such heavy expenses, then the position of the profession in relation to surgical patients becomes one requiring the careful consideration of every country practitioner.

Appended are some of the opinions of the medical press on the subject.

"Of Mr. Doidge personally we know nothing—we were not aware of his very existence till we read this trial in the *Western Morning News*. But we do not think he has met with fair treatment."—*Medical Times and Gazette.*

"After completely reading through the evidence in various reports of the case—in one at great length—and submitting it to highly skilled criticism, we are lost in astonishment at a verdict which seems to us contrary to the facts, and in opposition to every principle of equity. On the face of the facts as reported, we cannot but warmly sympathise with Mr. Doidge, who seems to suffer under a singular hardship."—BRITISH MEDICAL JOURNAL.

Subscriptions may be paid at the Offices of the *Medical Times and Gazette*, and BRITISH MEDICAL JOURNAL; EDWARD PETHYBRIDGE, Esq., Treasurer, Launceston Bank; or to

Mr. G. M. GIFFORD, *Bellevue, Launceston, Hon. Sec.*

The following subscriptions have been promised:—W. Babbage, Esq., London, £5; R. Willis, Esq., Horrabridge, £5 : 5; J. H. Willis, Esq., Lewdown, £5 : 5; E. Pethybridge, Esq., Launceston, £5 : 5; Thompson & Wilson, Launceston, £5 : 5; Dr. Littleton, Plymouth, £1 : 1; H. Walmsley, Esq., £1 : 1; —Preston, Esq., £1 : 1; T. Q. Couch, Esq., Bodmin, £1 : 1; Dr. Sargent, Polyphant, Launceston, £1 : 1.

THE HEALTH OF BIRMINGHAM.

THE following communication from Dr. A. P. Stewart, London, is of great importance, in order fully to appreciate the significance of the various statements made on both sides during the session of the Social Science Association, concerning the death rates of Birmingham. Dr. Stewart writes:—

"The favourite argument—which has been repeated till probably ninety out of every hundred in Birmingham have come to believe it—against the adoption of any further sanitary measures is, that the low death-rate shows such measures to be unnecessary. The following table, extracted from a return kindly furnished to me last week from Somerset House, of the death-rates per 1,000 living in Birmingham and the neighbouring Black Country towns for the last 17—and, in some cases, for the last 27—years, naturally prompts the inquiry, whether this argument has any solid foundation in fact.

	1841-50.	1851-60.	1861-65.	1866-67.
Birmingham	26	27	26	26
Aston	21	21	21	21
Bilston	—	31	26	25
Darlaston	—	30	28	26
Dudley	25	26	25	21
Oldbury	—	27	22	20
Tipton	—	27	25	21
Walsall	24	26	24	21
Wednesbury	—	26	23	19
West Bromwich	23	24	22	20
Willenhall	—	27	23	17

"From this statement it will be seen that, if we take the death-rate of Birmingham proper, it is the highest in the group; Darlaston alone being equal to it. And 26 per 1,000 is not only relatively, but absolutely, a high death-rate. If, by including Aston, we reduce the death-rate to 24, it is exceeded only in Bilston and Darlaston; the death-rate of the other seven districts, or sub-districts, ranging during the last two years from 17 to 21. But what it concerns us most to observe is, that Birmingham and Aston alone exhibit a stationary, while *all* the other districts and sub-districts show a diminishing, death-rate. I ask now, as I did on Tuesday—Is there any reason why Birmingham should maintain its death-rate of 26 or 24, when Bilston has fallen from 31 to 25, Darlaston from 30 to 26, Oldbury from 27 to 20, Tipton from 27 to 21, Wednesbury from 26 to 19, and Willenhall from 27 to 17? Has any one of these towns greater natural advantages than Birmingham? Does any one of them include a larger space of outlying rural territory? It will be seen that I have omitted any special reference to Dudley, Walsall, and West Bromwich, because, as the returns for these places refer only to the registration districts, which include respectively the sub-districts of Tipton, Darlaston, and Wednesbury, I cannot say to what extent the decrease in each of them depends upon the improvement in the included sub-district. In Bilston, Darlaston, Oldbury, Tipton, Wednesbury, and Willenhall, I give the death-rate of the sub-districts, the population of which agrees pretty nearly with that of the towns; and in all of them the diminution is considerable, ranging from 4 to 10 per 1,000. Nor have I included Wolverhampton in my table, because it also is a district, of which Bilston and Willenhall are two of the sub-districts. From these remarks it will be obvious that the publication of the mortality in the registration districts, however good and convenient it may be for other purposes, is nearly useless; while the publication of the death-rates since 1841, in the sub-districts, or, better still, in the towns—as in the Registrar-General's quarterly reports—would be most valuable for the comparison of sanitary condition and results. But even then our comparisons would only give a rough approximation to the truth. Not until we have accurate returns of cases of sickness not proving fatal shall we be able to form any thoroughly trustworthy estimate of the comparative healthfulness of our large towns and of the rural districts. We have asked this from her Majesty's Government, and expect that the inquiries of the Royal Commission about to be issued will lead to the adoption of this and other much-needed measures for the improvement of the public health. Meanwhile, it is quite possible, by thorough inspection and scavenging, and by forbidding the use of the polluted pump-water which, I am informed on good authority, is still used by two-fifths of the population of Birmingham, greatly to reduce the mortality from diarrhœa and typhoid fever. It is quite clear, from the result of Mr. Godwin's and of Mr. Clayton's and my own random investigations, that inspection of nuisances cannot be said to exist in Birmingham. The inhabitants of the courts and alleys which we visited sent for the inspector when matters became unbearable, instead of the inspector looking after them. I do not so much blame the inspectors as those who have assigned to them an impossible task. The result of my inquiries into the state of nearly eighty towns in England, Wales, and Scotland, shows an average of *one* inspector to 28,300 inhabitants. Really efficient inspection cannot be expected when more than 14,000 of an average population are assigned to one man. Bristol, with its 170,000 inhabitants, is one of the most thoroughly inspected towns in the kingdom; but, besides its very intelligent and able officer of health, it has 13 inspectors—viz., one superintendent and four district inspectors, each of whom has two sub-inspectors. The superintendent and district inspectors *meet every forenoon with the medical officer, and report to him* the results of their inspection during the previous twenty-four hours, so that anything requiring his special attention is looked after without one hour's delay. In Birmingham, without any medical officer of health to direct them, there are *one* chief and *six* sub-inspectors, for a population of at least 350,000—*i.e.*, one to 50,000. The task is an impossible one, and therefore is not attempted. With a medical officer of health, twenty-four inspectors of all ranks under his control, and an abundant supply of wholesome water, there seems no reason why the death-rate of Birmingham should not be reduced from the much-vaunted 24 to 21, or even 20, in the 1,000. And it will soon be found that economy of health and life is a great economy of the public resources."

QUARANTINE.

THE following correspondence is of considerable professional and public interest. It relates to a subject on which the influence of the Association with the Government might be usefully exerted.

Richmond, S.W., October 17th, 1868.

My Lord,—I have the honour to invite your attention to a subject connected with State Medicine, of great international importance, and which seriously affects the convenience and interests of the public at large.

For many years past, the quarantine laws and practice of Spain have been a source of most vexatious and oppressive impediment to the freedom of commercial and general intercourse. It is the all but unanimous conviction, I believe, of the medical profession in this country, that the grounds on which Spanish quarantine professes to be based are fallacious, and that its restrictions on intercommunication in epidemic seasons are extravagantly rigorous as precautions against the introduction of dangerous diseases from abroad. The experience of the past has certainly not afforded countenance to the perpetuation of the existing system. Few countries have suffered, since the first European visitation of malignant cholera, more severely from repeated invasions of the disease, than the peninsula. In the epidemic of 1865, Spain was early attacked, notwithstanding the vigilance of her quarantine and the stringency of the measures resorted to, and the loss of life among her population was very great; whereas in Great Britain, whose quarantine regulations in respect of cholera are of the most mitigated character, the ravages of the pestilence were comparatively small. And this example is but one out of many which might be quoted, of the great practical truth, that reliance upon quarantine as a defence against the development and spread of epidemic diseases is pretty sure to be accompanied with the neglect of those internal sanitary precautions which experience has proved to be the surest safeguard against their destructive effects.

The recent imposal, about six weeks ago, of quarantine restrictions throughout Spain upon all arrivals from London and other English ports, on the alleged pretext that Asiatic cholera was prevailing in this country, shows to what extreme measures the Madrid Board of Health has been in the habit of resorting upon the merest rumour, although the Spanish consuls resident in London and elsewhere can ascertain at any time the exact truth from official sources of information. Such proceedings must surely be as hurtful to the real interests of Spain herself as they are onerous and oppressive to foreign countries having intercourse with her.

It is in the hope that, among the changes now taking place in Spanish administration, the quarantine system hitherto in force, and its bearings on international communication, may possibly excite interest on the part of the new Government, and that its investigation may lead to some reform in accordance with the teachings of past experience and of medical science, and which would be of immense benefit both to Spain and to other countries, that I have ventured to submit to your lordship the foregoing remarks.

I beg to annex a copy of a memorial on the general question of quarantine, which was recently addressed to the President of the Privy Council, as it will serve to show how much interest this subject of State Medicine excites throughout the profession at the present time.*

I have the honour, etc., GAVIN MILROY, M.D.

The Right Hon. Lord Stanley, H.M. Secretary of State
for Foreign Affairs.

Foreign Office, October 22nd, 1868.

Sir,—I am directed by Lord Stanley to acknowledge the receipt of your letter of the 17th instant, containing observations on the quarantine system of Spain, as hitherto enforced; and I am to state to you, in reply, that the representations which Her Majesty's Government have constantly made against the vexatious quarantine regulations of Spain will be renewed when a proper opportunity presents itself.

Dr. Milroy. I am, sir, etc., E. HAMMOND.

STUDENTS' SCHEDULES.

THE following circular letter has been issued from the Royal College of Surgeons of England, London, October 19th, 1868.

"Sir,—I am desired by the President to acquaint you that the question adverted to in my letter of the 20th of December last, viz., the desirability of simplifying, if possible, the certificates produced by candidates for the diplomas of this College without in any way vitiating their authenticity and reliable character, has been brought under the consideration of the Court of Examiners of this College; and I am directed to inform you that the Court, having considered the several replies to my letter of the 20th of December last, and finding that a large majority of the authorities of the recognised medical schools and hospitals are of opinion that the number of signatures might be reduced, and that the duty of signing certificates might be very properly confided to one, or, in some cases, to two trustworthy officers appointed for the purpose, resolved in future to receive certificates so signed from those Medical Schools who have appointed the necessary officer or officers.

"I am, therefore, to enclose an amended form of schedule which has been approved by the Court, and which, while it is adapted for the individual signatures of the surgical teachers of the Medical Schools and Hospitals, has been framed with a view to carry out the desired simplification of certificates, and thus to obviate the inconvenience hitherto occasioned both to teachers and students by the multiplicity of signatures.

"I am at the same time to request that you will furnish me with the names of the officer or officers to whom the duty of signing certificates shall have been delegated by the authorities of your school.

"I am, Sir, your obedient servant,
"EDWARD TRIMMER, *Secretary*.
"To the Dean or Secretary of the Medical School of ——."

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE first quarterly meeting of this Society was held on October 27th, at the Freemasons' Tavern; Dr. ROGERS in the Chair.

The report of the council stated that the Association now numbered 600 members, and was efficiently represented by 66 local secretaries in nearly every part of England and Wales. The council were of opinion that it was desirable to devote their efforts for the present to the attainment of two of the principal objects of the association, viz., permanence of appointment and adequate remuneration. With reference to the first subject, the select committee of the House of Commons in 1854 recommended that every medical officer should be appointed for life. How imperfectly that recommendation had been carried out might be gathered from the fact, that many hundreds of medical officers were still subject to annual re-election, whereby their usefulness was sensibly impaired, and their independence reduced to a minimum. As to the question of remuneration, though all competent authorities had confessed that the general scale was wholly inadequate, no action had been taken by the Poor-law Board to raise and equalise the salaries upon something like a satisfactory basis. The association must appeal to the House of Commons for redress of these admitted grievances, and for some measure of long-delayed justice.

Dr. ROGERS said:—During the last few months we have received many hundreds of letters, principally from provincial poor-law medical officers, and where the writers have entered into detail the story has always been the same, viz., grave dissatisfaction with existing arrangements, whilst many assert that the present system increases pauperism, not only in consequence of the wholesale issue of orders for medical relief, but from the limited means placed at their disposal for the treatment of the sick, and the discouragements of all kinds which they receive. There is no question that the claims of poor-law medical officers are unfavourably looked upon by guardians and the Poor-law Board. We must educate the public and the House of Commons upon the subject ere we can expect any satisfactory settlement of the question. Already efforts have been made extending over several years, and the results have been small indeed; but we must have patience. Remember, we have the press pretty generally with us. We have the philanthropists, who see the folly and wretchedness of the present system; and, further, we have the politico-economists, who note with much concern the steady strides which social degradation and pauperism are making in our midst. The eminent candidate for the representation of the Universities of Edinburgh and St. Andrew's does not stand alone in considering that to give a miserable salary to a medical officer and compel him out of that to find all medicines, etc., for the sick poor, is an amazing instance of maladministration, or in the conclusion he draws that such palpable errors of administration have augmented pauperism instead of diminishing it, and wasted the resources of the country instead of husbanding them. A movement was commenced nearly three years ago for the purpose of calling public attention to the improper manner in which the sick poor of London were treated in several of our metropolitan workhouses, and as a result very considerable modifications of the law were made. Now, if it was fit and proper to legislate for the metropolis, it is also right to do so for the country. If it was necessary to devise a scheme, whereby the destitute sick poor should be more fitly provided for in the workhouse infirmaries, and those in their own dwellings more efficiently visited and prescribed for, it is, I think, evident that a provision similar in design and character is also needed in many of our large towns, and in a smaller and more modified degree, perhaps, in rural districts. We have recently had an opportunity of reading the annual report of the Poor-law Board, and in its pages may be found what has been done or attempted to be done during the past year. It is truly a very meagre affair. Credit has been taken for certain things which some of us in this room were instrumental in urging on the board. I have made independent inquiries, and the result is that in the very pauperised districts of Bethnal-green there is no change, nor in Camberwell, Chelsea, Hackney, Hampstead, Holborn, Islington, East

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* Reference is made to the Memorial on Quarantine, which was brought under the consideration of the Duke of Marlborough on March 17th last, by the President of the College of Physicians, the Director-General of the Navy, Sir William Jenner, Dr. Tweedie, Dr. Dickson of H.M. Customs, and Dr. Milroy.

London, West London, City of London, Woolwich, Greenwich, St. Marylebone, Wandsworth and Clapham, St. Pancras, and Rotherithe. In Bermondsey and Clerkenwell there has been a slight increase of salary, but no other change. In Poplar, St. George's-in-the-East, and Mile-end, where medicines and dispensers are found, the change for the better, both for officers and sick poor, is remarkable. In the Strand, not only is there no change, but I understand that one thing I complained of to the guardians and to the Poor-law Board eleven months ago still remains in full force. I refer to the monstrous folly and wrong-doing committed in admitting their houseless poor into the interior of their workhouse, and then employing them in labour which necessarily mixes them up with the decent old inmates without any attempt at classification. So satisfied is the Poor-law Board with the management of the guardians that they specially arranged their order for the modification of the union so as to preserve every one of them; and if I am correctly informed, neither of the two inspectors had been there for months. In St. Luke's, Old-street, Woolwich, and many other unions, not only has no increase of salaries been made, but even the paltry extras, such as vaccination fees, have been remorsely swept away; and in several districts officers are now only temporarily appointed, and therefore their hands are tied in ordering necessaries for the sick. Indeed, in but few instances has any improvement been made, and where it has occurred it is too trifling to mention. In the East London Union, a district medical officer, with 1,500 cases a year and all medicines to find, receives £140 annually; in the adjoining City of London Union, a gentleman, for 200 cases, receives £150. Many cases of wide discrepancy for similar or larger services might be readily quoted. Mr. Hardy, on introducing the Metropolitan Poor Bill, laid great stress on certain points. Amidst the cheers of the House he stated that the salaries were insufficient, and that he intended to improve them, and that all medicines were to be found. You learn by what I have stated (thirteen months after the Act had been in operation) how imperfectly this has been done. I contend, that as soon as the Act was passed it became the duty of the Poor-law Board to have laid down a basis for the salaries of all the officers in the metropolis. Local boards should not have the determination of what salaries should be paid, now that they are no longer dealing with local funds; nor should it be permitted that such favouritism should be shown at the central board, that, whilst a large salary voted by a local board in one part of town to a medical officer should be immediately sanctioned, a refusal should be made to a reasonable increase in another part of town, as instanced in the decisions sanctioning the salaries of the workhouse medical officers of St. Marylebone and Mile-end. I urge this suggestion in the interests of the officers, of the ratepayers, and of the sick, where the obligations are equal let the payments be the same. It is determined to draw up a general form of petition to be circulated amongst our members for individual signature, and we trust to be able to have these presented to the House early in the ensuing year, as we are resolved that the subject shall be raised in the next Session. After the close of the meeting in July, I received a letter from Mr. Villiers, ex-President of the Poor-law Board, in which he questioned the accuracy of a statement made by me in June last, in reference to the Weymouth Board of Guardians, in so far as that statement reflected on him as President of the Poor-law Board. I regret that the letter came too late for our meeting, as it would have afforded me much satisfaction to have emphasised my belief that the statement respecting Mr. Villiers was not true, and I now avail myself of this opportunity to state what I believe to be the truth; that it was to the exertions of Mr. Villiers on the select committee that the concession of the recommendation that cod-liver oil, quinine, and expensive medicines should be found by guardians was made; that further, he advised that guardians should find all medicines; that he directed the issue of the circular letter respecting the employment of paid nurses in workhouses; and that he advocated a common rating for the maintenance of the London sick poor. In this latter proposal, all philanthropists coincided with him; his views were identical with those of Miss Nightingale, whose ideas are well known, and who, I believe, holds the opinion that poor sick people should not be considered as paupers, but, as it were, the children of God, and being stricken with illness, should belong to no union or parish, but to the community at large; by whom, being poor, they should be taken care of and cured as soon as possible. Many gentlemen may possibly agree with me that, if the late government had remained in power, a larger scheme of practical utility would have been propounded. Indeed, I should not be surprised to learn that the outline of such scheme was actually in preparation by Mr. Villiers for submission to the House. Certain it is that during the passage of the Act through the House I communicated with Mr. Villiers, and he was good enough to adopt some of my suggestions and press them in committee, but unfortunately without avail. He moved the adoption of the report.

The report having been adopted,

Dr. Thomas moved, "That in the opinion of this meeting the salaries of poor-law medical officers are totally inadequate to the onerous and very responsible duties they are required to perform, and the meeting recommends that the Council of the Association be authorised to memorialise Parliament on the subject, and to take such others steps as they may deem requisite to ensure to the medical officers a system of fair and equitable remuneration for their professional services." The motion was seconded by Mr. Benson Baker, and carried unanimously.

On the motion of Dr. Fowler, seconded by Mr. Bruce, on the following motion was adopted:—"That this meeting is of opinion that all poor-law medical officers should be appointed for life, as recommended by the Select Committee of the House of Commons of 1854."

A vote of thanks to the President and Council was given at the close.

The annual dinner was held in the evening at the Freemasons' Tavern, the President, as before, in the chair. The toast of the evening was given by the President, who, in proposing "Prosperity to the Association," traced its origin from July, 1866, when 27 members joined. At the end of the first year the number had increased to 45; at the end of the second to 80. Such a proportion of the parochial medical officers of the country as were now on the list of members must by their united efforts ultimately force the Poor-law Board to place them in their proper positions. The Association had now grown to be a fact. The position of the medical officer had become so bad that it was impossible for him to do his duty towards the poor placed under his control, unless at the loss of his own time and money. The intense selfishness of the Poor-law Board was at the bottom of this deplorable state of things, and there would be no remedy until that Board controlled instead of aided the guardians in their neglect of duty towards the poor, who were not in this country looked after as they ought to be, especially in the rural districts. A case was mentioned where a medical poor-law officer, who had to ride over 30,000 acres of district, and find medicines, was paid by the guardians the sum of £15; and other instances were given of an equally striking character. In returning thanks for the hearty manner in which this toast was honoured, Dr. Fowler laid down the principle that, in parochial matters, as in others, under-paid work was under-done work.

Various other speeches were made, the speakers including the Rev. Harry Jones, Dr. Dixon, Dr. Brett, Mr. Benson Baker, Mr. Norton, Dr. Stallard, Dr. Anstie, etc. Several letters explaining inability to attend were read from various medical officers throughout the country Mr. Charles Lyall, of the Italian Opera, sang a few songs between the speeches.

The Hunterian Oration.—Mr. Quain, President of the Royal College of Surgeons, will deliver the biennial oration in memory of the great Hunter, on Monday, Feb. 15th, 1869. It will be the first occasion on which the discourse will have been delivered by an Orator holding at the same time the position of President of the College.

The Health of the Bengal Native Army.—The *Friend of India* says:—"The health of the native army of Bengal last year was nearly as good as in 1864, when there were only fifteen deaths per thousand. In 1867, in a strength of 45,500, there were 16.77 deaths per thousand. Cholera, which sweeps away both the English and the Gorkha soldier, seems to spare the ordinary sepoys in the same stations. For them, Bengal proper is the most unhealthy. Of 28½ deaths per thousand there were 4½ due to cholera, while in the two provinces in which English soldiers were swept off, the proportion was only 2.53 and 3.89. The death-rate among a gaol population of 54,962 was 38.32; and in the case of the prisoners also, only 4.93 was due to cholera. Dysentery and diarrhœa are the gaol scourges; and they carried off 15.23 per thousand. Bengal proper, with its disgracefully constructed gaols and damp soil which defies the dry-earth conservancy system, was, as usual, the worst, the death-rate being 56.65, of which 7.58 was from cholera. On the other hand, the provinces so fatal to our soldiers, Agra, Meerut, Rohilcund, and the Punjaub, were singularly healthy. The rates stood at 23.64 in the first three, and at 24.66 in the last, while the cholera rates were only 1.76 and 3.90 respectively. If the cholera mystery is ever to be solved, it will only be by a patient induction of all known statistical and meteorological facts in connection with the different constitutions of the English soldier and the native of India. As yet cholera has defied all sanitary, administrative, and public works arrangements, however elaborate, skilful, and expensive. The epidemic year comes steadily round, and the plague stalks along its beaten paths from its home in the delta of Bengal away to Europe, with a regularity which admits of prediction."

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM A SPECIAL CORRESPONDENT.]

Payment of Hospital Medical Officers.—The Club Movement.—The Health of Birmingham.—The Queen's College.—Resignation of Dr. Evans and Mr. Crompton.

SINCE my last letter, the Dispensary difficulty has come to an end, to the satisfaction of no one but the Committee of the charity. You will remember that the medical staff resigned *en masse*, in consequence of the refusal of the Committee of this wealthy charity to acknowledge their services by a small honorarium. Their combined action has caused the recognition of the principle involved, if not of the practical application they desired. A salaried consulting-physician is appointed—alas, for medical combinations, one of the three who resigned!—and the consultation surgery is to be sent to the senior surgeon to the General Hospital. At the same time, the house-staff is increased by the appointment of a resident physician. Probably this will work well as long as the present staff, or gentlemen worthy of similar confidence, fill the posts of resident officers; but should, at any time, an inefficient officer get in, the reputation of the charity will suffer, perhaps irretrievably, before the incompetency is detected.

The club-surgeons are gradually pressing for their increased remuneration, and are more likely to succeed from going quietly to work, than by any combined resignation of their various appointments—a step which would of necessity throw their clubs into the hands of less scrupulous medical practitioners.

The Social Science meeting, the opening of the Queen's College, and a double resignation at the General Hospital, have made a little stir in our medical world here.

The complete report of the Health Department in your pages prevents the necessity of any detailed account of the only part of the Social Science Congress likely to prove specially interesting. Able papers were read by Dr. Hill on the Water Supply; by Mr. Mathews and Miss Garrett, L.S.A., on points in Hospital Management; and by Mr. Furneaux Jordan, on the Contagious Diseases Act. The question of officers of health was opened up, and their necessity proven in towns containing large populations, as well as manufacturing processes tending to injure life either directly or indirectly. But we must expect little from our Town Council. A year ago, a memorial signed by every or nearly every medical practitioner in the town, urged upon them the importance of this appointment. I suppose the only way is to keep the subject always floating on the surface, and to try to gain our end by importunity, if not by reason. The great necessity of such an appointment in Birmingham was insisted upon by Mr. Godwin and Dr. A. P. Stewart, who proved that Birmingham was the only large town in the neighbourhood in which the death-rate was not decreasing. That it is not increasing, is astonishing to us here. With chimneys pouring out volumes of smoke; with offensive manufacturing processes, such as tallow-boiling and bone-boiling, in our very midst; to say nothing of pigs, slaughter-houses, damp wells, etc., in the better parts of the town; and with most disgraceful nuisances in the back slums; with water, to say the least, of questionable purity; and with a system of drainage unquestionably bad,—the wonder is, that we are not poisoned in our beds by effluvia, or poisoned out of them by what we breathe, eat, or drink. It is to be hoped that, if ultimately an officer of health be appointed, he will have a sufficient remuneration. One at £250 a year would be little superior to an inspector of nuisances. The salary must be one which will induce a good man with special capabilities to devote all his time to his duties; and his appointment, once made, should be permanent, or he would be crippled by the fear of dismissal. Seven or eight hundred a year would be a fitting salary.

The opening of the session at Queen's College was a great success. A large number of the profession, and most of the people of influence in the town, were present at Lord Lyttleton's address, which was eloquent and sensible, as his speeches always are. He made some true and good-natured remarks on the past management of the institution, and looked forward to a future of success. There are, I hear, twenty-six new students, which is as large a number as at any save the three or four largest London schools. The work of the session is going on well. Mr. West gave an introductory lecture (which was well worth hearing) to the clinical course at Queen's College. The entry of students there is very satisfactory.

The reconstruction of the General Hospital is just completed, and the institution is in thorough working order. I heard some medical gentlemen at the Social Science Congress remark that they had never seen so well ordered a hospital anywhere. The clinical work here, too is being actively conducted; and the opportunities of seeing practice are as great as ever, and continue to attract, as they have long done, senior students and freshly passed surgeons from the London schools. The senior physician of the hospital, Dr. Evans, and the senior surgeon, Mr. Crompton, resigned last week. Their resignation was quite unexpected. As usual, candidates for the vacancies were speedily at work. Dr. B. W. Foster, at present physician to the Queen's Hospital, is the only applicant for the physician's appointment. Two gentlemen were in the field for the appointment of surgeon; one of these resigned after two or three days, leaving Mr. W. P. Goodall as sole candidate. Considerable dissatisfaction is, I hear, expressed by the friends of the retiring candidate at their finding the constituency canvassed when they began. They complain that Mr. Goodall had information of the approaching vacancy many days before it occurred, while it was kept secret from all save his friends. From the long connexion of the retiring officers with the General Hospital—Dr. Evans having been thirty-three years physician, and Mr. Crompton twenty-five years surgeon to it—it is highly probable that some permanent recognition of their services will be decided on. The usual form that similar testimonials have taken has been a portrait to be hung in the hospital board-room. Might not a portion of any sum collected be well devoted to founding prizes in clinical medicine and clinical surgery for the students of the hospital?

ASSOCIATION INTELLIGENCE.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held at Birmingham, October 28th, 1868.

PRESENT:—Dr. Sibson, F.R.S. (in the Chair); Mr. Bartleet; Mr. T. H. Bartleet; Dr. Bryan; Dr. Chadwick; Mr. Ceeley; Mr. Clayton; Dr. Falconer; Mr. Husband; Mr. Hodgson; Dr. Jeaffreson; Mr. Nunneley; Mr. Heckstall Smith; Dr. Stewart; Dr. Simpson; Mr. Southam; Dr. E. Waters; Dr. Wilkinson; Mr. White; Mr. Wheelhouse; and Mr. Williams (General Secretary).

The following resolutions were adopted:—

1. That the offer of the President of the Association to have published in one volume the addresses delivered at the Oxford Meeting, as well as Dr. Hughes Bennett's Report on the Action of Mercury, be approved of; and that the thanks of the Committee be given to Dr. Acland for his kind offer.

2. That the list of candidates for election by the Committee of Council be in future printed with the notice of the meeting, as well as the names of the gentlemen recommending them.

3. That at the next annual meeting there shall be five Sections as at Oxford, viz., Medicine, Surgery, Physiology, Midwifery, and Public Medicine.

4. That the subject for the Hastings Medal for 1870 be—"On some subject or agent in therapeutics."

5. That there shall be three addresses delivered at the next annual meeting, viz., Medicine, Surgery, and Midwifery.

6. That the report of the Subcommittee for Promoting the direct Representation of the Profession in the Medical Council be approved of and published in the JOURNAL; and that the Secretary be directed to forward copies to the Honorary Secretaries of the Branches.

7. That the report of Dr. Bell's Committee be referred to a Subcommittee of the Committee of Council.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary.*

13, Newhall Street, Birmingham, October 28th, 1868.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE next meeting is appointed to be held at Maidstone, at the General Hospital, on Tuesday, November 10th, at 4.15 P.M.; HENRY W. JOY, Esq., F.R.C.S., in the Chair. Dinner at the Star Hotel, at 6.45 P.M.

A paper by Dr. Monckton: "Remarks and Illustrations of some forms of Arterial Disease."

Dr. Gramshaw will propose the appointment of a Permanent Medico-Ethical Committee for the District.

FREDERICK JAMES BROWN, M.D., *Hon. Secretary.*

Rochester, October 27th, 1868.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, OCTOBER 23RD, 1868.

C. J. B. WILLIAMS, M.D., F.R.S., Vice-President, in the Chair.

DR. DRAGE was elected a member of the Society.

Mr. CALLENDER brought under the notice of the Society a case of Double Amputation, the boy having been under the care of Mr. Brook of Lincoln. The case was referred to for the purposes of showing how well the patient could walk with knee and ankle-joint movements provided by Mr. Gillingham's artificial limbs, and to point out the practical difficulties which had resulted from the temporary fixing of the thighs in flexion upon the abdomen.

A case of Chonic Disease of the Right Lung with Contraction of the Right Side of the Chest, exhibiting the characters of Fibroid Phthisis, was exhibited by Dr. JULIUS POLLOCK, and a report on the same case by Drs. SYMES THOMPSON and DOUGLAS POWELL was read. The reporters concluded that although the case resembled those described by Dr. Andrew Clark in respect of its slow progress and more obvious characters, it did not possess such distinctive features as to justify separate classification. This opinion was based on the phthisical aspect and constitutional state of the patient, the existence of physical signs of a cavity at the right apex, and of disease in the opposite lung, and the absence of evidence of fibroid disease in the organs.—Dr. THOMPSON further remarked that, without reference to the question whether or not fibroid phthisis is to be recognised as a distinct species of disease, the case was not a characteristic example of the kind so designated by Dr. Clark, at the same time stating that he had not in his own experience met with a case which, in its whole course of development, corresponded to Dr. Clark's definition.—Dr. POWELL recalled the attention of the Society to the leading features of the case related by him at the last meeting, pointing out some important differences between it and the case now under consideration.—Dr. WILKS thought that no objection could be offered to comprising within the term phthisis all cases in which the lungs are progressively disintegrated, just in the same way as Bright's disease is made to include a great variety of morbid conditions of the kidney. He thought although cases in which fibroid change is associated with the more common *post mortem* results of phthisis occurring frequently, it appeared to him that cases in which it existed independently of those lesions were extremely rare. He had met with such cases, and therefore thought it important that they should be recognised, and saw no objection to the term applied to them by Dr. Clark.—The President then called upon Dr. A. CLARK, who, after some complimentary observations, said that he felt bound to justify himself against the charge which had been pressed against him of revolutionary tendencies, and he could not do this better than by giving to the Society once more a summary of his views. By the word phthisis he meant a progressional consolidation of the lung, with subsequent progressional destruction of the consolidated parts. So far, all would agree with him. What he maintained in opposition to those whom he termed "thorough-going limitarians" was, that this process was not always of the same pathological nature, and that the common notion that it resulted invariably from the deposit in the diseased organ of a foreign body called tubercle, which must work itself out, was a false one. His object was to show that cases of phthisis may be classified into groups, which, although not separated from each other by abrupt lines, are nevertheless tolerably distinct, and that with every such group a characteristic anatomical change is associated. He proceeded to point out, in the same terms, as on previous occasions, the distinctions between tubercular pneumonic and hæmorrhagic phthisis; and finally, stated the affection to which he desired to apply the term fibroid phthisis is distinguished by its definite mode of origin, its slow progress, its more febrile character, its affecting one lung only, its producing retraction and displacement of neighbouring organs, its affecting organs by preference, persons of middle-age, and its being associated with similar changes in the skin and internal organs, and even in the nervous tissue. By giving a name, he said, to this affection, all that we do is to label a certain class of cases as forming a recognisable group, and do not necessarily commit ourselves to any theory. Dr. Clark concluded by replying to the objections to his views by previous speakers.

Mr. MAUNDER reported a case of Wounded Superficial Femoral Artery requiring ligature of the vessel. He referred to the fact that dark, venous blood was seen to escape from the distal portion of the vessel; and he stated that this occurred in all such cases if examined before the circulation had time to right itself by anastomatic streams, a condition scarcely to be looked for when an aneurism is the cause of the vessels being ligatured; because, in all such instances, there is a sort of anastomatic circulation established around the aneurism during the progress of the disease, and thus arterial blood is directed into the vessel below the site of its aneurismal affection. Mr. Maunder further expressed an opinion that ligature of the femoral artery was not so secure an operation when practised on a patient free from arterial disease, and referred to the ligature of this vessel in cases of wound of the knee-joint attended with alarming symptoms, and of disease of the joint, giving rise to conditions which threaten life, or, at present, necessitate amputation.—Dr. ANSTIE and Mr. CALLENDER referred to the importance of the question raised by Mr. Maunder; and Mr. Hulke, after noticing a case in which the spermatic artery had been tied by Mr. Moore for a fungoid protrusion of the testicle, drew attention to the difference between ligaturing an artery and the troubles connected with compression of the vessel by reason of the injury at the same time inflicted upon the vein.—Dr. WILLIAMS also referred to the applicability of compression, and regretted time did not admit of further discustson of the subject.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 16TH, 1868.

J. R. LANE, Esq., President, in the Chair.

Prevention of Contagious Venereal Disease. By J. R. LANE, Esq.—The subject was one which had attracted a good deal of attention of late, and he took this opportunity of bringing it before the society for the purpose of initiating a discussion on a question which he believed to be one of the most urgent of the sanitary problems of the day. The point at issue had nothing to do with the question of prostitution, and did not in any way affect either its suppression or its toleration; it was simply the sanitary question of preventing or, at all events, of diminishing the fearful amount of this kind of contagious disease now prevalent in the community. That this was by no means a hopeless task, was abundantly shown by the result already obtained on a limited scale and in certain limited areas, by the means now in operation. He described the origin of the present Contagious Diseases Act, and its application to certain naval and military stations, and the mode in which it had been carried out, shewing that the results obtained had been exactly proportional to the completeness with which the provisions of the Act had been enforced. It was essential to success that there should be a compulsory periodical inspection of all prostitutes, ample hospital accommodation for their reception when diseased, and compulsory detention till cured. It appeared that at Sheerness, where these conditions had been complied with, and which was besides an isolated station, the disease had been almost stamped out. At Plymouth also the result has been good; while at Portsmouth, Woolwich, and Chatham it had been less satisfactory, in consequence of an insufficiency of hospital accommodation, and the consequent impossibility of carrying out the periodical inspection. In these places, and also at Aldershot, there was a serious disturbing cause in the constant influx of fresh troops bringing disease with them, accompanied, as they always were, by a number of prostitutes, many of whom were diseased. Many diseased women also came from a distance, and took up their residence at the inspected stations for the purpose of being sent to hospital for treatment. Notwithstanding these drawbacks, the statistical returns (which were quoted) from all these places shewed a very decided diminution, not only in the amount but also in the virulence of the disease.

During the quarter ending June 30th, 1868, taking all the inspected stations together, and out of a total force of 51,300 soldiers, sailors, and marines, 2,383 men were admitted into hospital for venereal disease, but it is worthy of notice that of these only 1,345 contracted their disease within the inspected districts; that is to say, as many as 44 per cent. of the cases were caused by women who were not under the operation of the Act. For this force of 51,300, the average number of men under treatment is 587 or 1.1 per cent.

The general beneficial result obtained may be thus expressed. In 1864, before any legislation was attempted, the annual ratio of admissions for venereal disease, throughout the whole army, was 29 per cent. This has been reduced at the inspected stations taken collectively, to 18.5 per cent. But it must be remembered that nearly half of this is owing to disease contracted out of the districts. The annual ratio of men contracting disease within the district where they are stationed is not more than 10.4 per cent. With respect to the women, it appeared that, during the same quarter, the number brought under the operation of the Act at all the stations was 2,542. Of these 2,542, 1094 were found diseased, and were sent to hospital for treatment; that is to say, two out of every five women became diseased during this period. The number of beds provided for them at all the stations is 484.

The evidence from all quarters is remarkable that, both as regards the women and the men, not only has the quantity of disease been diminished, but its quality has been modified in the most marked manner. Not only has the proportion of syphilitic disease to milder affections been much diminished, but the syphilis which has occurred has been of a mitigated character, and secondary affections have been rare. At the London Lock Hospital, where a certain number of beds were occupied by patients sent by Government under the Contagious Diseases Act, and the remainder by patients applying in the ordinary way, the statistics, which were quoted, shewed a striking contrast between the two classes of cases, both as to the character and severity of the disease, and the time required for its cure. The shortcomings of the present measure are due almost entirely to the limited area of its operation, and all the evidence points to the expediency of extending it as widely as possible without loss of time, for the benefit of the civil as well as the military population.

The Select Committee of the House of Lords last session recommended the extension of the Act, first, to *all* military and naval stations; and, secondly, to any locality the inhabitants of which might apply to be included in its provisions. It was especially desirable that London, and the principal seaport towns, should be included as soon as possible. The main difficulty was, of course, the expense of providing the necessary hospital accommodation, and whence the necessary funds should be derived. One ready mode of extemporising hospitals for all seaport towns, and also for London, might be found in the appropriation of a few of the many useless wooden vessels which now encumber the dockyards. Mr. Lane believed 200 beds to be an overstatement of the amount of hospital accommodation provided in London for the treatment of diseased women. The great majority were treated as out-patients. Their treatment as out-patients was of little benefit to them, while it was positively injurious to the public health, by enabling them to pursue their calling for a longer period than they otherwise could; and it was only when they found it impossible to continue it, that they would apply for admission as in-patients. The only way to do real good to them, and to prevent them doing harm to the community, was to get at their disease, and treat it as soon as it appeared. This could only be done by compulsory periodical examination, and compulsory detention in hospital. No amount of hospital accommodation maintained on a voluntary system would ever accomplish it.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, OCT. 20TH, 1868.

JOHN SIMON, Esq., F.R.S., President, in the Chair.

MR. SIMON'S opening remarks were given in the JOURNAL of last week.

DR. PEACOCK exhibited an Aneurism of the Cerebral Artery, from a female who was seized, in December, with coma, convulsions, paralysis of the right side, and loss of speech. She recovered considerably; but in February a second attack cut her off. Extensive extravasation was found to have taken place in the left brain. There was no connection between the sac and the blood effused; but there was extensive softening of the brain at the part.

DR. PEACOCK also shewed a case of Malformation of the Heart sent him by Mr. Gascoyen.

DR. BURDON SANDERSON presented Supra-renal Capsules, from a female, who had died in the Middlesex Hospital of Addison's disease. The chief points of interest in the case, in addition to the characteristic symptoms found in Addison's disease, were that the history was one of phthisis, and there were evidences of tubercle present in the lungs. The temperature, however, was normal. The pulse was constant; but the respirations were variable, according to the presence or not of attacks of dyspnœa under which she occasionally laboured. She had several attacks of incoherence or maniacal delirium, which passed off. She died rather suddenly of exhaustion. The *post mortem* examination shewed that the semilunar ganglia and nerves connecting them with the capsules were surrounded by adenoid tissue, which also enveloped the capsules. Both capsules were diseased; the left more advanced. The left capsule was adherent to the kidney; the right to the liver. There were two substances observable in the capsules: one the normal cortical tissue, and another which had the characters of the adventitious or adenoid tissue.

MR. CARR JACKSON exhibited a case of Cancer of the Lungs, secondary to Osteoid Cancer of the Humerus, for which the patient, a boy, was operated on in October last. He made a good recovery; but in the spring his lung became affected, and he died in a month. The pleura was full of fluid; and an irregular tumour was found in the lung, with bony nodules. The stroma had undergone partial fatty degeneration.

DR. JACKSON then shewed two specimens of Calculus—one phosphatic, of ten months' growth, removed from a boy, who had passed a piece of sealing-wax with wire attached into his bladder. Lithotomy was performed, and the wire found forming the nucleus of the calculus. —The PRESIDENT remarked on its peculiarly lobed appearance on section.—Another, a mulberry calculus, from a boy, who had suffered for ten years with symptoms of stone. Lithotomy was performed, and he recovered well.

DR. MURCHISON exhibited a Liver, from a patient, aged 41, who had died with vitiligoidea. He had been very intemperate, and had had dyspeptic symptoms five years. These increased; and three years afterwards he observed swelling of his abdomen. A few months before admission in July, jaundice and epistaxis supervened. His motions were never, before or after admission, free from bile. There were no patches or tubercles on the gums, hands, or elbows. There were, however, tubercles in the eyelids, and pityriasis, with great itchiness. The abdomen was greatly enlarged; the surface smooth, dense, and slightly tender, with constant pain in the region of the shoulders. There was no evidence of ascites. The tongue was dry and unusually red; and there was much vomiting after food. There was a systolic murmur at the base of the heart. The urine (specific gravity, 1012) contained no leucine or tyrosine; but bile, and a small quantity of albumen. He died ten weeks after admission; the jaundice having increased, and purging and hæmatemesis supervened. When the tubercles of the eyelids were examined microscopically, minute granules of oil and compound granules were found in the cutis. The liver, which weighed 81 ounces, was pale and dense, consisting of jaundiced lobules of the liver and a dense white material made up of nuclear deposit, like adenoid matter, and apparently becoming fibrillated. It seemed like early cirrhotic liver. The glands in the fissure of the liver and along the large arteries of the abdomen were enlarged. The spleen, which weighed twenty-three ounces, and the kidneys, contained masses like embolic deposits. There was a large simple ulcer of the stomach, which had perforated. Its floor was formed by the pancreas. Two semilunar valves were united together.—DR. FAGGE thought Dr. Murchison's case—the seventh case associated with jaundice—shewed more strongly that there is a connection, although not constant, as he previously supposed, between this disease and a peculiar form of jaundice.

DR. DOUGLAS POWELL exhibited for Dr. Quain a case of Congenital Opening in the Pericardium.

MR. BIRKETT exhibited a Fibro-plastic Tumour developed around the Knee-joint, and amputated on the 16th inst.—It was referred to the Committee on Morbid Growths.

DR. C. HILTON FAGGE exhibited a female patient, aged 40, with Diffused Scleriasis—a disease first described by Thirial in 1845. This was the first case, he believed, noticed in this country. It had commenced with a feeling of stiffness and hardness in the neck, seven months before, after a mustard-plaster had been applied for a discharge from the ears. It rapidly spread over the body. When admitted into the hospital, it terminated rather abruptly at the epigastrium; but now the hands and feet were the only parts entirely free. The skin was rather of a brown tint. She had derived some benefit from hot baths. Dr. Fagge remarked especially on the relation which he believed to exist between this affection and that known as the "keloid of Addison", which, by all German writers, was included under the head of Sclerodermia, or Scleriasis. If such a connexion could be proved, it would tell greatly against the view that Addison's keloid was a representation of the ancient leprosy; and also against the opinion that the seat of its patches was in any way dependent on the distribution of nerve-trunks.

MR. SYDNEY JONES brought forward an enormous Enchondroma of the Scapula, which had commenced when the patient was 9 years old, and continued increasing for fifteen years, the last year very rapidly. He had suffered little inconvenience, except latterly, from the weight and numbness of the arm. It was removed, along with the entire scapula, on October 2nd; but the patient died on the fifth day from exhaustive inflammation of the neck, the muscles being infiltrated with pus. The viscera were healthy.

DR. CRISP shewed Enlarged and Congested Kidneys. He exhibited also a Model of an Apoplexy of the Left Lobe of the Cerebellum, from a female, 13½ years old. She had gone to bed well; at seven in the morning, she complained of pain in the head, and died an hour and a half afterwards.

MR. PICK shewed for Mr. Prescott Hewett a Cystic Tumour of the Breast, of eighteen years' standing, taken from a patient, aged 40. The cysts had been frequently tapped, and a clear fluid drawn off. The axillary glands became cancerous, and she soon died. MR. PICK, in answer to Mr. Birkett's question, said he had not thoroughly examined the tumour, and in answer to Mr. Hulke said he could not say decidedly the glands were cancerous.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

POOR-LAW MEDICAL OFFICERS IN IRELAND.

THE following circular has been issued by the County and City of Cork Medical Protective Association to candidates for seats in Parliament.

"Sir,—I am directed to submit for your consideration the reasons contained in the annexed statement, in favour of granting a retiring allowance to Poor-law medical officers, which, they trust, will convince you not only of the justice, but also the policy, of such a measure. It is proposed to include a *permissive* clause in the Local Officers' Superannuation Bill, lately introduced by Sir Colman O'Loghlen, for carrying out this object; and I am directed respectfully to ask whether you are prepared, if elected to serve in the ensuing Parliament, to support such a clause. "I have the honour to remain, sir, your obedient servant,

"CHARLES ARMSTRONG, M.D., *Hon. Sec.*

"'*Retiring Pensions to Poor-law Medical Officers in Ireland.*—The following are a few of the grounds, both as regards the public welfare and as a matter of bare justice to the medical officers, on which the claim of a retiring pension rests.—1. Poor-law medical officers are bound to place their whole time, both night and day (Sundays not excepted), at the disposal of those who appoint them; and they are prohibited accepting any appointment (a coronership, for instance) which may possibly take them beyond the bounds of their district. Such a complete surrender of time is not required in any other branch of the Civil Service; and yet Sir Robert Peel's Bill, which grants pensions to Poor-law officials, *excludes the medical officers*, on the plea that their *whole* time is not devoted to their official duties. 2. Such regulations as these are calculated to dissuade men of high professional acquirements from seeking these appointments; and thus the poor and the surrounding residents are not as well served as they might be. Without prompt and efficient care, the poor man is rendered incapable of labour, and he and family become a permanent burden on the rates.

"'Supposing the measure to be passed into a law, the number of recipients would at any time be very small, for these two reasons, which in themselves furnish the best security against any abuse of the retiring pension.—1. Medical officers would not, except as a last alternative, renounce their public emoluments, as well as their claim to public confidence, by confessing their incapability for medical practice; and 2. The acceptance of the retiring allowance by a medical man would of necessity bring beside him a young and active rival to compete with him for any private practice which the neighbourhood might afford. Hence the superannuation allowance, which would form an inestimable boon to the few, would be in no danger of abuse by the many. It is plain, therefore, that the addition to the poor-rates, consequent on the establishment of this system of retiring pensions to medical officers, would be most insignificant. It could not exceed one-third of the salary. It is obvious also that the old worn-out medical officer in possession will naturally be anxious to continue to endeavour to perform his duties, which, if there were a retiring allowance, he would resign into younger and more active hands.'"

BODMIN WORKHOUSE.

IT will be remembered that Mr. Mudge, Medical Officer of the Bodmin Workhouse, borough, and three parishes, at a salary of £58:15, lately applied for an increase of his miserable stipend. After refusal on refusal, he resigned; and the post was advertised in the local and some medical journals. We were curious to see how his medical brethren would act in aiding or obstructing this most reasonable demand. We are glad to say that at the last meeting of the Board of Guardians, *there was only one applicant*, from a long distance, who was accepted; and we are still more pleased to learn that he has since inquired further into the requirements of the post, and has wisely withdrawn his name.

SOUTH DUBLIN UNION.

DR. GEORGE B. OWENS, having lately become a Justice of the Peace, has resigned his place as an elected guardian; and his resignation having been accepted by the Poor-law Commissioners, he has been appointed an *ex officio* guardian. Dr. Owens deserves well of the Poor-law medical officers in Ireland, and particularly of those in Dublin, for whose substantial interests he has for many years worked hard and successfully. To him, in a great measure, is due the present comparatively high rate of salary enjoyed by the Dublin Poor-law medical officers.

OBITUARY.

HENRY BROWN, ESQ., WINDSOR.

MR. HENRY BROWN (late Surgeon to her Majesty the Queen at Windsor Castle) died at his residence, Sheet Street, Windsor, on Saturday morning. Mr. Brown, in his official capacity, had attended her Majesty, the Prince Consort, and the Royal children for many years. Owing to failing health he was compelled to resign his office a year or two back, and was succeeded by Dr. Fairbank. He, however, from time to time attended the Queen and Royal family. Mr. Brown was about 66 years of age.

WILLIAM WILLIAMS, Esq., F.R.C.S.

WE regret to announce the death of this much respected gentleman, at Dolgelley, on October 11th. The cause of death was a fall from his horse. The sad occurrence cast quite a gloom upon the town and neighbourhood, where the deceased was well known and highly esteemed by both rich and poor. He received his diploma in 1838, and was elected a Fellow of the Royal College of Surgeons in 1856. He was at one time house-surgeon at Guy's Hospital, London, and for the last thirty years he had been in active practice in Dolgelley, enjoying one of the most extensive connections in North Wales. He leaves a widow, but no family. Although the funeral was intended to be private, large numbers of people from near and distant parts, and several public bodies, voluntarily attended as a mark of respect to the memory of one whom they had esteemed so much when alive, and whose loss they now mourned.

JOHN R. SIBBALD, M.D.

WE regret to announce the death, on October 19th, of Dr. Sibbald of Edinburgh. He graduated in 1825, and has spent most of his life since that date in a lucrative practice. He took an active interest in politics, and was for some time a member of the Town Council. He leaves a considerable sum of money for the benefit of several public institutions of Edinburgh.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE number of medical students entered this year, we understand, is twenty-five, a number exceeded by only four, that is, not one-half of the metropolitan schools. This increase of medical students at the University is a subject of congratulation to the profession, and is gratifying to those who have laboured so successfully to promote the efficiency of the school. The students do not complete their medical education at Cambridge, but spend part of the time at some other school; and the increasing influx of University men thus caused at our metropolitan schools, cannot but have good influence.

EXAMINERS.—The following gentlemen have been appointed examiners for medical and surgical degrees during the present academical year. First M.B. Examination—P. T. Main, M.A., St. John's College; and J. B. Bradbury, M.B., Downing College. Third M.B. Examination—Dr. Bond, Corpus (*ex officio*); Dr. Barclay, Caius; and Dr. Ormerod, Caius. Examination for the Degree of M.C.—Professor Humphry (*ex officio*); Dr. Burd, Caius; and Mr. Brooke, St. John's College.

UNIVERSITY OF ABERDEEN.

THE UNIVERSITY CONSTITUENCY.—We are indebted to Dr. John Fyfe, Registrar of the University, for the following summary of the Register of the General Council of the University of Aberdeen up to Oct. 1st, 1868, forming the new constituency.

University officials	22
A.M.	1314
M.D. and M.B.	406
Without an Aberdeen degree	255
Total	1997

Of the above A.M.s, 90 are also M.D. or M.B. Of those without the Aberdeen degree, 6 are M.D. elsewhere. Of the A.M.s, 6 are also B.D. As C.M. is never taken without M.B., we have not noted the degree. D.D. and LL.D. are honorary, and do not qualify for registration. The Register was closed on the 1st of October last. No one not then on the books will be entitled to vote for the election of members of Parliament, or for any other purposes, until after the 1st January, 1870.

UNIVERSITY OF DUBLIN.

In the newly published regulations respecting the mode of obtaining degrees in medicine and surgery in this University, there is this important innovation, which deserves special notice:—"Members of the Royal College of Surgeons of England *or of Ireland* [the italics are our's], who are Graduates in Arts of Oxford, Cambridge, or Dublin, are admissible to the examination for M.B." Up to the summer of 1868 this privilege could only be obtained by members of the London College, but now it is extended to those of the Dublin Colleges also; the two Colleges of Surgeons giving a corresponding privilege to candidates for their diplomas who are medical graduates of Dublin.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Oct. 21st to 27th (both inclusive).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.894
Highest reading of do. (corrected and reduced), on 27th, 10 P.M.	30.345
Lowest ditto Ditto on 24th, 2 P.M.	29.423
Range of pressure during the week	00.922
Mean temperature of air in shade	48.2
Mean temperature of evaporation	46.1
Mean temperature of dew-point	43.8
Mean degree of humidity (saturation=100)	85.
Mean maximum temperature of the week	54.8
Mean minimum temperature of the week	38.3
Calculated mean temperature of the week	46.5
Maximum temperature of air in shade, on 24th	59.9
Minimum temperature (protected), on 22nd	31.3
Minimum temperature (exposed on grass), on 22nd	26.0
Range of temperature during week	33.9
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 26th	105.1
Lowest ditto ditto on 24th	57.7
Mean amount of clouds (0—10)	4.0
Total rainfall (which fell on 21st, 23rd, 24th, 25th, and 26th)	1.0 inch
Mean amount of ozone (0—10)	1.0

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	0	0	0	0	3	1	3	0	3.7
2 P.M.	0	0	0	0	0	1	4	1	1	3.7
10 P.M.	0	0	0	0	0	0	3	0	4	1.4

Mean force of wind (0—12) 2.9

The weather of the week has been variable; it was fine at the commencement and end of the week, being interrupted by the atmospheric disturbances which extended over the 23rd, 24th, and 25th. Atmospheric pressure has, on the whole, been somewhat higher than last week; but its range has been much greater, having extended over nearly one inch in three days. Temperature has been somewhat higher than last week. Winds have been chiefly westerly; and, on an average, of moderate force. A westerly gale blew on the 24th; and the temperature, which was only 52° F. at 2 P.M. of that day, attained its maximum (59.9°) about 6 P.M.; the curious result being, that that evening the maximum thermometer in the shade registered 2° F. higher than the exposed black bulb solar radiation thermometer—the one attaining its highest, the other its lowest point, on the same day. Hoar frost lay on the mornings of the 22nd and 27th. Colds and coughs are frequent; but the general health is good.

Kew, October 28th, 1868.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 22nd, 1868.

England, George, Handsworth
Fielding, Thomas, Milton Abbas, Blandford
Giddings, John Allan, Old Trafford, Manchester
Higgs, Frederick Seagrave, Twyford, Melton Mowbray
Litteljohn, Saltern George, 31, Gresham Street, E.C.
Pickburn, Thomas James, Fisherton House, Salisbury
McClean, Edward Henry, Barbadoes, West Indies
Timmins, John Aaron James, Granville Square

At the same Court, the following passed the first examination.

Grover, John Pollington, Guy's Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

ARDEE UNION, co. Louth—Medical Officer for the Collon Dispensary District.
BIRMINGHAM GENERAL DISPENSARY—Two Resident Surgeons.
BIRMINGHAM GENERAL HOSPITAL—Physician; Surgeon.
BLOOMSBURY DISPENSARY—Physician.
CANONGATE, Edinburgh—Parochial Medical Officer.
CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square—Physician.
CHELTENHAM COLLEGE—Surgeon.
DUNDALK UNION, co. Louth—Medical Officer for the Dundalk Dispensary District.
HAMBLEDON UNION, Surrey—Medical Officer for the Workhouse.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, Margaret Street, Cavendish Square—Visiting Physician.
KING'S COLLEGE, London—Sambrooke Medical Registrar; Sambrooke Surgical Registrar.
MALE LOCK HOSPITAL—Apothecary.
MOUNTMELLICK UNION, Queen's County—Medical Officer for the Coolrain Dispensary District.
NEWPORT (Mon.) ODD FELLOWS' MEDICAL ASSOCIATION—Surgeon.
NORTH DUBLIN UNION—Medical Officer for the Coolock and Drumcondra Dispensary District.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
ROCHESTER, CHATHAM, AND STROOD DISPENSARY--Dispenser.
ROYAL CORNWALL INFIRMARY, Truro—Surgeon.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician.
ROYAL INFIRMARY, GLASGOW—Two Assistant-Physicians, a Surgeon, and Two Assistant-Surgeons, to the Dispensary Department.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ROYAL SOUTH LONDON DISPENSARY, St. George's Cross—District Surgeon.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Surgeon.
SOUTH STAFFORDSHIRE HOSPITAL, Wolverhampton—Physician; House-Surgeon.
STOCKPORT INFIRMARY—Assistant House-Surgeon.
SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.
TOXTETH PARK TOWNSHIP—Medical Officer for District No. 1.
TRINITY COLLEGE, Dublin—Professor of Botany.
WESTERN GENERAL DISPENSARY, Marylebone Rd.—Physician in Ordinary.

MEDICAL APPOINTMENT.

*Lansdown, F. P., Esq., appointed Medical Officer to the Queen Elizabeth's Hospital and Red Maids' School, Bristol.

BIRTHS.

Alexander.—At Leslie, Fife, on October 16th, the wife of *James Alexander, Esq., Surgeon, of a son.

Beatty.—On October 13, the wife of *J. Guinness Beatty, M.D., Senior Assistant-Physician of the Rotunda Lying-in Hospital, Dublin, of a daughter.

Brown.—On October 21st, at Uppingham, the wife of *Frederick Warren Brown, Esq., Surgeon, of a son.

Dyer.—On October 21st, at Ringwood, Hants, the wife of *Samuel Sumner Dyer, M.D., of a son.

MARRIAGES.

Howard, James Fielden, M.D., of Shaw, to Jane Kershaw, eldest daughter of the late Thomas Heap, jun., Esq., of Haugh, near Milnrow, at St. James's Church, Milnrow, on October 22nd.

Jessop, Charles Moore, Esq., Staff-Surgeon, to Ellen, daughter of the late *Thomas Dyer, Esq., Surgeon, of Ringwood, Hants, on October 22nd.

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Scurvy.—Another scurvy-laden ship arrived in the Thames on Sunday last, and three of the crew were at once conveyed to the *Dreadnought*, hospital-ship. This vessel left England at the end of last year, and was not therefore provided with certified lime- or lemon-juice, in accordance with the provisions of the Duke of Richmond's Act.

Bequests, etc. to Medical Institutions.—A legacy of £200 has been bequeathed to the Cancer Hospital, Brompton, under the Will of Mrs. Mary Ann Booth of Bishops Waltham. Legacies of £100 each have been bequeathed under the will of the Reverend the Earl of Abergavenny, to the West Kent General Hospital, the Ophthalmic Hospital at Maidstone, and the Sussex County Hospital. A legacy of £100 has been bequeathed to the Arbroath Infirmary under the will of David Duncan, Esq., of Greenbank, Arbroath. A legacy of £100 has been received for the General Infirmary, Hereford, from the Executor of the will of George Crocse, Esq. The Fishmongers' Company have voted £50 to the East London Hospital for Children, Ratcliff Cross. A legacy of £100 has been paid by the Executors of the will of Miss Julia Denroche, to the Hospital for Incurables, Donnybrook Road, Dublin. A legacy of £50 has been paid to the Treasurer of the Glasgow Royal Infirmary, under the will of James Sword, Esq.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.
WEDNESDAY	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Henry Lee, "On the Mediolateral Operation for Lithotomy."—Epidemiological Society.—Entomological Society.—Odontological Society, 8 P.M. Mr. G. Laurie, "On Plastic Fillings of Teeth."

TUESDAY.—Pathological Society of London.—Anthropological Society of London.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Adjourned Discussion on the Papers of Dr. Tilt and Dr. Meadows; "On the Treatment of Imperforate Hymen", by Dr. E. Copeman, Norwich; and other Papers by Dr. Martyn and Dr. Cory.—Geological Society.

THURSDAY.—Harveian Society of London, 8 P.M. Mr. J. Zachariah Laurence, "On Abnormal Lacrymation: its Causes and Treatment, especially by Excicion of the Lacrymal Gland."—Linnæan Society.—Chemical Society.

FRIDAY.—Western Medical and Surgical Society of London, 8 P.M. Practical Evening for the Narration of Cases and Exhibition of Specimens.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

PROXIES AT HOSPITAL ELECTIONS.

DR. BARNES (Carlisle).—By law, all proxy forms used at hospital elections require to be stamped; and, moreover, in cancelling the stamp, the person signing the proxy should be careful to write his name and the date of signature *across the stamp*. If these formalities be not observed, the proxies may be disputed, and the election rendered invalid.

SULPHUROUS ACID.

SIR,—Will you permit me to ask if any of the medical men in Dunstable or the neighbourhood have ever seen any physiological effects from the fumes of the above acid, which is used in bleaching the straw for plaiting? It would be interesting and useful to know this, in these times of the "great sulphur cure".

Brixton Hill, October 1868.
I am, etc., H. H

ADVERTISEMENT.

SIR,—I enclose an advertisement which has appeared in the local papers here for several weeks past. The advertiser, I see, is a registered medical practitioner. Surely this is a case in which the Medical Council ought to interfere to prevent such practices. Perhaps the insertion of the enclosed in the JOURNAL would call the attention of the Registrar to the matter.

I am, etc.,
Southsea, October 1868.
H. B. GOOLD.

"Fifty years' experience in the rise and fall of Youth. Dr. Culverwell's New Works. Just published. 2d. How to Live 100 Years; What to Eat, Drink, and Avoid; and How to be Happy. Also, by the same author, 1s., Marriage; its Obligations, Happiness, and Disappointments. The Case-Book: 100 Cases of the Hidden Mysteries of Nature. To be had at the *Guardian* Office, Portsea; or of the author, 3, Great Marlborough Street, W., London. Dr. C. will send advice to all letters containing 10s. 6d. in stamps."

A MEMBER.—In 1869, at Leeds.

SOLUTION OF NITRATE OF SILVER.

SIR,—I should be glad to know what is the strongest solution of nitrate of silver that may be used with safety as an injection in cases of spermatorrhœa. Acton speaks of ten grains to a drachm; but this seems to me of such unusual strength, that I fear it may be a misprint for ten grains to an ounce. I do not like to use it without further inquiry.

I am, etc., P. D.
Clifton, October 1868.

MR. O'L. (Falmouth.)—You will find the leg-suspender and bed-guard, invented by Mr. Henry Greenway, of Plymouth, admirably adapted for fractures. The Messrs. Weiss charge about £3:10 for it. Write for a description.

DR. RUMSEY'S ADDRESS: ADDITIONAL CORRIGENDA.

MEMBERS and subscribers are requested to make these, as well as those printed at page 461, in their copies of the JOURNAL, October 17th; so that this version of the address may correspond with that to be published in the *Transactions of the Social Science Association*. P. 409, col. 2, line 21 from bottom, before "its power", insert "much of"; line 17 from bottom, for "action" read "existence"; line 10 from bottom, after "gratifications", read "acquires the grossest habits, and manifests the profoundest indifference," etc.—P. 410, col. 1, line 16 from top, for "as well as", read "like"; line 21 from top, after "74", insert "parts"; line 22 from top, erase "also"; line 24 from bottom, for "100 population", read "the hundred"; col. 2, line 7 from top, for "without reckoning", read "in addition to"; line 8 from top, for "add", read "note".—P. 411, col. 1, lines 5, 6, and 7 from top, after "Cavallo", read "observed that the air which he had electrified had a purifying effect on decomposing organic matter, he laid", etc.; line 26 from top, erase marks of quotation".—P. 412, col. 1, line 14 from bottom, before "railway", insert "weekly"; line 10 from bottom, for "or even of", read "nor need it equal"; col. 2, line 9, from top, erase "kindly"; line 19 from top, for "shall we not", read "we should"; line 20 from top, erase "and"; line 22 from top, erase "?"; line 25 from top, for "wholesale", read "wholesome"; line 36 from top, for "poisons", read "poison"; line 39 from top, after "serious", insert "and progressive": erase "going on"; line 21 from bottom, for "real", read "most important measure of"; line 20 from bottom, erase "in the first place"; lines 8 and 9 from bottom, erase marks of quotation.—P. 413, col. 1, line 25 from top, for "conservancy", read "navigation"; line 41 from top, after "Great Britain", insert "I would also strongly recommend that large reservoirs, for the storage of water at the heads of our principal valleys, should be safely constructed, at the public cost"; line 44 from top, before "water-courses", insert "great"; line 45 from top, for "incorrigibly", read "for the present"; line 50 from top, erase "rashly"; line 53 from top, erase "precious"; line 55 from top, erase "a few"; line 61 from top, erase "of"; line 7 from bottom, for "died", read "perished"; line 6 from bottom, for "who cried", read "suffering from an increase of sickness and mortality, who were crying".—P. 414, col. 1, line 2 from top, after "next", insert "by Dr. Lankester, in his forcible exposition of the effects of the water-supply upon cholera in the East of London; then, with great fullness of detail and accuracy of research"; line 6 from top, before "area", insert "precise"; col. 2, line 10 from top, for "besides", read "So that, besides"; line 14 from bottom, for "him", read "it"; line 11 from bottom, after "to be", insert "plainly".—P. 415, col. 1, line 3 from top, for "The", read "Even the"; col. 2, line 43 from top, for "mighty power of", read "fact that"; after "soils", insert "possess the power"; line 46 from top, after "legislator", insert "of old"; last line foot-note, for "Bauncke", read "Bannehr".—P. 416, col. 1, line 11, before "Mr. Moule", insert "the Rev."; col. 2, line 16 from top, for "Both", read "But"; line 26 from bottom, erase *per se*.—P. 417, col. 1, line 7 from top, for "area and boundary", read "district"; line 5 from bottom, for "in", read within"; line 1 from bottom, for "Will", read "Now, will"; col. 2, line 2 from top, after "lead", insert "as it has led"; line 32 from bottom, for "any empirical resort to expedients", read "resorting empirically to any schemes."

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Wiltshire County Mirror, Oct. 28th; The Islington Gazette, Oct. 20th; The New York Medical Gazette, Oct. 10th; The Durham Chronicle, Oct. 23rd; The Irish Times, Oct. 27th; The Dublin Express, Oct. 27th;

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. J. Alexander, Leslie; Dr. Cameron, Dublin; Mr. T. Watkin Williams, Birmingham; Dr. Falconer, Bath; Dr. Corry, Belfast; Dr. Thomas Lewis, Carmarthen; Dr. Henry Barnes, Carlisle; Mr. Alwood, London; Dr. Jas. Cuming, Belfast; Dr. Luce, Glastenbury; Dr. McLean, Dublin; Mr. R. Greenway, Wellington; Messrs. Rose and Co., Leith; Dr. Meadows, London; Mr. Lewis Willcox, London; Mr. C. Steele, Clifton; The Editor of the "British Journal of Dental Science"; Dr. Reith, Aberdeen; Dr. Murray, Simla; Dr. Hastings, London; Mr. Morgan, Dublin; Dr. T. W. Hime, Sheffield; Professor Wanklyn, London; Dr. J. Guinness Beatty, Dublin; Mr. Ashton, Birmingham; Dr. Foster, Birmingham; Dr. Beveridge, Aberdeen; Mr. Goold, Southsea; Dr. Huxley, Torquay; Mr. T. Laffan, Dublin; Dr. Ogston, Aberdeen; Mr. F. W. Fearn, Derby; Dr. S. Whitlow, Hatton; Mr. Wilby, Leicester; Dr. Rumsey, Cheltenham; P. D., Clifton; Mr. Heckford, London; and Dr. Aldis, London.

LETTERS, ETC. (with enclosures) from:—

Mr. Joseph Lister, Glasgow; Dr. Lyons, Dublin; The Honorary Secretary of the Liverpool Medical Institution; Dr. Buchanan, Glasgow; Dr. Belcher, Dublin; Dr. Mapother, Dublin; Dr. Jukes Styrap, Shrewsbury; Dr. A. P. Stewart, London; Mr. C. H. Moore, London; Mr. T. Langston, London; Dr. J. Robertson, Edinburgh; Dr. Wolfe, Glasgow; The Honorary Secretary of the Western Medical and Surgical Society; Dr. Moxey, London; Dr. Bradbury, Cambridge; Messrs. Rose and Co.; Mr. Couch, Bodmin; Dr. Humphry, Cambridge; Mr. J. Fyfe, Aberdeen; Mr. G. Worthington, Worthing; Mr. R. Dunn, London; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; The Registrar-General of England; The Registrar-General of Ireland; Dr. John Murray, London; Dr. Treutler, Kew; Dr. C. Hilton Fagge, London; Dr. D. Dyce Brown, Aberdeen; The Registrar of the Medical Society of London; Dr. F. J. Brown, Rochester; Mr. Rickards, London; Dr. R. S. Sisson, London; Mr. W. P. Swain, Devonport; Dr. W. Stokes, jun., Dublin: Mr. T. Smith, London; Dr. Hugh Norris, South Petherton; Dr. Hargrave, Dublin; Mr. F. Poole Lansdown, Bristol Mr. Thomas Windsor, Manchester; Dr. Dyer, Ringwood; Mr. Edwin Woodward, King's Lynn; Messrs. Fannin, Dublin; Dr. C. Armstrong, Cork; Mr. Jonathan Hutchinson, London; Messrs. Smith, London; Mr. J. F. Clarke, London; Mr. B. Baker, Brentwood: Mr. W. F. Clarke, London: Dr. E. S. Thompson, London; Dr. Mapother, Dublin; Mr. Hogg, London; and Mr. Paget, London.

A LECTURE

ON

THE ACTION OF BLOOD-LETTING, HEAT, COLD, AND IRRITANTS, IN THE TREATMENT OF DISEASE.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Physician to King's College Hospital; Professor of Medicine in King's College; etc.

I PURPOSE, upon the present occasion, to direct attention to certain general principles, which may serve as guides for the employment of remedies which act by altering the amount and the distribution of blood in the vessels—I mean blood-letting, general and local; hot and cold applications; and counterirritants.

And, first, I will speak of *venesection.* This powerful remedy, which in past times has been much employed, and in many cases, apparently, with excellent results, has, during the last thirty years, fallen into disrepute. It is not now my intention to discuss the question whether this disuse of a once popular, and always a powerful, method of cure, has been the result of a change of type in inflammatory disease. This question has been very ably argued, and answered in the negative, by Dr. Hughes Bennett (*The Principles and Practice of Medicine*), and by Dr. Markham (*Bleeding and Change of Type in Disease*). Sir Thomas Watson, who, in the last edition of his *Lectures*, had expressed his opinion "that there are waves of time through which the sthenic and the asthenic characters of disease prevail in succession, and that we are now living amid one of its adynamic phases", has, with characteristic candour, in a published letter addressed to Dr. Markham, expressed his suspicion that, in the sentence above quoted, he ought to have spoken of successive waves of *opinion* rather than of *time*.

It appears, then, that, while medical opinions and medical practice have fluctuated, the diseased state which we call inflammation, and the constitutions of our patients, have remained essentially unchanged. Great errors have been committed in past times by excess in bleeding, and now the tendency is to the opposite extreme—to neglect venesection entirely, even in cases which admit of unquestionable relief from this practice. We are now suffering from an epidemic of *hæmatophobia*. A fashionable and very eminent physician said to me lately, "It is so long since I have prescribed leeches, that I have forgotten the Latin name for a leech!"

This irrational rushing from one extreme to another under the influence of a fashionable impulse, this drifting upon the waves of opinion without rudder or compass, is equally discreditable to us as a scientific profession and disadvantageous to our clients. It is well worth an effort to avoid this scandal for the future.

It may be laid down as a general principle that the object of blood-letting, whether general or local, is to abstract blood, either directly or indirectly, from vessels which are overfull, and to promote its more equal diffusion through the system. And, more particularly, the main object of venesection is, to lessen over-distension of the venous system, under which term I include all the vessels that contain black blood, the systemic veins, the right cavities of the heart, and the pulmonary artery. It will be found, on a careful inquiry, that all those cases in which the most striking relief has been afforded by venesection, are characterised by an impeded circulation through the lungs, and a consequent distension of the venous system. This proposition has been advocated and illustrated with much ability by Dr. Markham, in the treatise already referred to.

I will relate, in a few words, a typical case. At the end of September 1866, during my visit to the hospital, one of the sisters came to tell me that a woman who had just been admitted into Twining Ward was dying. The patient had chronic renal disease, considerable anasarca, with the physical signs of engorgement of the lungs and of liquid in the left pleura. She was gasping for breath in great agony; the face was blue; the eye-balls prominent and watery; the jugulars much distended. She was apparently dying from over-distension of the right side of the heart. I asked Dr. Fenn, the house-physician, to open the jugular vein. About ten ounces of blood escaped. As the blood flowed, the distension of the veins was seen to subside; the breathing became easier before the blood had ceased to flow; in ten minutes, the dyspnœa had passed away, and it did not return. She died three weeks afterwards, gradually worn out by the results of advanced renal degeneration.

Dr. John Reid proved, by experiments on dogs which were killed by arious methods, but all involving apnœa and a consequent blood-stasis in the lungs, that opening the jugular vein, by lessening the distension of the right side of the heart, has the effect of increasing its contractile power, and so assisting the circulation.

We shall find that this principle is applicable to nearly all those cases in which pure empiricism has led to the practice of venesection, with apparently the most satisfactory results. These cases include some forms of inflammatory disease, and others of a non-inflammatory nature. They comprise cases of pneumonia, pleurisy, and bronchitis, in which the respiratory capacity of the lung has been suddenly and greatly reduced below the requirements of the blood to be aërated, and where, consequently, there is a continual tendency to a serous effusion into the bronchi of the healthy lung-tissue, cases of apnœa, the secondary result of brain-disorder—in other words, some cases of apoplectic and of epileptic coma, in which the true object of venesection is not to arrest cerebral hæmorrhage or to lessen cerebral congestion, but to relieve the oppressed right heart, and so to help on the circulation, first through the lungs, and then through the systemic arteries.

And here it is important to observe, that a full and a strong pulse, which, in past times, has been looked upon as an indication for the practice of venesection, is rarely present in those cases in which the practice is known to have been most successful. Obviously, the true indication for venesection is not fulness of the *arteries*, but overfulness of the *veins*; and, inasmuch as this overfulness of the veins is a result of an impeded transit of blood from the venous into the arterial system, it is manifest that the arterial pulse will be the smallest and the feeblest in some of those cases in which venesection is most needed to relieve the over-distension of the venous system; while the effect of venesection will be to increase the volume and the power of the arterial pulse. In no class of cases has this been more strikingly shown than in some well authenticated cases of cholera collapse, in which venesection has been attended with the happiest results. In illustration of this, I may quote the following striking case, which has been recorded by Sir Ranald Martin. (*The Influence of Tropical Climates on European Constitutions*, 6th ed., p. 349.)

"On visiting my hospital in the morning, the European farrier-major was reported to be dying of cholera. His appearance was surprisingly altered; his respiration was oppressed; the countenance sunk and livid; the circulation flagging in the extremities. I opened a vein in each arm, but it was long ere I could obtain anything but trickling of dark treacly matter. At length, the blood flowed, and by degrees its darkness was exchanged for more of the hue of nature. The farrier was not of robust health; but I bled him largely, when he who, but a moment before, I thought a dying man, stood up and exclaimed, 'Sir, you have made a new man of me.' He is still alive and well."

The reports of the Indian practitioners abound in cases like this, showing, as the immediate results of venesection, a relief from dyspnœa and cardiac distress, and an increase in the volume and force of the arterial pulse, while the blood, which had nearly stagnated in the veins, and had consequently become dark and viscid, quickly assumed its natural colour and consistency, when the disengorgement of the oppressed right heart had increased the freedom of the circulation.

Bell makes the following statement (*Treatise on Cholera Asphyxia*, p. 118). "The effect of blood-letting would, indeed, sometimes appear almost miraculous. A patient will be brought in a cot, unable to move a limb, and, but that he can speak and breathe, having the character, both to touch and sight, of a corpse; yet will he, by free venesection alone, be rendered, in the course of half an hour, able to walk home with his friends."

Rogers gives the following description of the effects of venesection by a medical man who was himself the patient. "There was a sensation which I am at a loss to describe, as if my heart was ceasing to beat, and a dread of suffocation; this sensation was instantly relieved by bleeding, and I recovered immediately." (*Reports on Asiatic Cholera in Regiments of the Madras Army*, by Samuel Rogers, p. 259.)

Here I would say emphatically, that I look upon venesection, not as a cure for pneumonia, or pleurisy, or bronchitis, or for apoplectic or epileptic coma, or for any of the various forms of apnœa, or for the collapse of cholera; but only as a means of mitigating one of the accidents of those various morbid states; namely, a paralysing over-distension of the right heart and the whole systemic venous system. If we can satisfy ourselves that this state of the venous system exists to a degree that perilously interferes with the onward flow of blood, then we need not be deterred from having recourse to venesection by the general feebleness of the patient or by the special weakness of the arterial pulse. The object of venesection in all these cases is, by abstracting a certain quantity of nearly stagnant venous blood, to promote a more rapid and a more abundant supply of arterial blood to the tissues; and, amongst other tissues, to the muscular walls of the heart itself. For it should be borne in mind, that an impeded circulation through the lungs necessarily involves a defective blood-supply to the coronary arteries, and a consequent loss of muscular power in the heart's walls, quite apart from the paralysing over-distension of the right cavities.

When an obstruction in the larynx threatens fatal apnœa, in considering the question of tracheotomy, we take little note of what may have been the patient's previous condition of health and strength. The main question for consideration is, whether an opening in the trachea will remove the state of apnœa and the consequent asphyxia; and we act accordingly. So, with regard to venesection, while moving blood is the life of the body as a whole, and of each particular part, stagnant blood is death, whether general or local. If, then, by the withdrawal of blood from overgorged vessels, we can promote the movement of that which remains in the system, we effect a renewal of life, and we afford a physical illustration of the great doctrine that life may be lost by saving it, and saved by losing it.

These being, as I conceive, the true principles which should guide us in the practice of venesection, we see plainly the mischievous absurdity of the practice, which prevailed not long since, of bleeding a patient before a surgical operation, in order to prevent subsequent inflammation, and of bleeding persons in health periodically at certain seasons, to obviate a possible tendency to disease.

Local Bleeding.—I have long been convinced, by observation and experience, that local bleeding, by leeches or by cupping, is of great use in cases of painful acute pleurisy, pericarditis, and peritonitis, in some acute inflammatory cases of Bright's disease, and in some inflammations of the eye and of the brain. The relief from pain and distress, especially in the early stages of acute inflammation of the serous membranes, is so manifest that it can scarcely be disputed, even by the most sceptical. The relief thus afforded has received different explanations. Some practitioners maintain, that leeching and cupping are only forms of counterirritation, and that the abstraction of blood is unnecessary and useless, if not actually injurious. Others affirm that local bleeding is useful only where there is a *capillary connection* between the skin and the tissues which are inflamed. But this explanation is obviously not applicable to some of the cases in which local bleeding is most indisputably useful; for instance, to inflammation of the eyeball, of the pericardium, and of the kidney. What, then, is the *modus operandi* of local bleeding in these cases? It appears to me to admit of a most satisfactory explanation through the *arterial connection* between the skin and the parts beneath. Take, for instance, the case of pericarditis. The internal mammary artery supplies the pericardium and the integuments over the heart. By the application of leeches over the heart, we abstract blood from the integumentary branches of the internal mammary artery, and in the same proportion we divert blood from the deeper pericardial branches. So, when leeches are applied near an inflamed eye, blood is drawn from the superficial branches of the ophthalmic artery, and diverted from the deeper ocular branches.

Let me illustrate this principle by some very simple and obvious analogies. When my opposite neighbour, Mr. Poole, exhibits his well known illumination, he so depletes the main gas artery of the street, that the chandelier in my dining-room burns with a faint and feeble light. Mr. Poole obviously takes no gas directly from my pipes—there is no immediate "capillary communication" between my pipes and his —yet, by his rapid consumption, he diverts the gas from my burners. My chandelier, therefore, is the analogue of the inflamed pericardium when leeches are drawing blood through the skin. This is literally a case of inflammation being mitigated by local depletion.

I was giving this illustration to an intelligent non-medical friend, and he said: "I can give you another instance. I have a long pipe from a cistern for watering my garden; at the end of the pipe there is a tap for watering the ferns; nearer the cistern, there is another tap for supplying the general surface of the garden. Sometimes, when I am watering the ferns, I find a sudden diminution of the stream, and I know that my sister has turned on the upper tap for watering the garden." Here, again, the ferns are in the position of the inflamed pericardium.

I am indebted to another friend for the following illustration. A spring on a neighbouring height supplies a house with water, and on its way there a branch pipe goes off to a fountain in the garden. When water is being drawn off through a large tap in the kitchen, the fountain-jet is much reduced in height. Here, again, the fountain represents the inflamed pericardium.

The same explanation applies to all the cases in which experience has shown that local bleeding is beneficial. It has been denied that cupping or leeching the loins can help an inflamed kidney more "than if the blood had been taken from the arm or from the nape of the neck." But this surely is a mistake. The lumbar arteries, which supply the integuments of the loins, arise from the abdominal aorta close by the renal arteries; and, when leeches or cupping-glasses draw blood through the skin of the back, it is certain that the diminished pressure within the lumbar arteries will divert a certain quantity of blood from the neighbouring renal arteries. The principle holds here precisely as in the case of the mammary artery and the pericardium. The blood will as surely take the course indicated by diminished pressure within the vessels, as the water in a pump will follow the rising piston, and the diminution of pressure in a main artery will be greatest near the point where the blood is being rapidly withdrawn through one of the branches. It may be thought that the quantity of blood thus diverted is very small; and so, in the case of venesection in the arm or neck, how slender is the stream of blood which escapes from the opening in the vein compared with the torrents which are rushing through the great venæ cavæ into the right side of the heart; and yet how decidedly and promptly does this diverted current lessen the distension of the whole venous system. The effect is to remove that proverbial last straw which is threatening to break the camel's back.

If the explanation which I have given of the influence of venesection and of local bleeding be the true one, then it will be seen that, although venesection would, by lessening the amount of blood in the body, and by enfeebling the heart's action, tend to diminish the flow of blood to an inflamed pleura, or pericardium, or kidney, yet any relief thus obtained would be purchased by a much greater expenditure of blood than when the blood is drawn from vessels near the seat of inflammation.

Hot fomentations and poultices, and coverings of *cotton-wool and oil-silk*, have a soothing and beneficial influence in many cases of inflamed serous membranes, pericarditis, pleurisy, peritonitis. What is the operation of these remedies? Their action is very similar to that of local bleeding. The warmth relaxes the subcutaneous arteries. The skin, therefore, receives a larger supply of blood; and in the same degree blood is diverted from the vessels of the inflamed serous membrane. Then, too, there is a sort of depletion from the full cutaneous capillaries by the free local sweating which the warmth occasions.

The most marvellous illustration of the relaxing effect of warmth upon the arteries is afforded by the results of a hot injection into the veins of a patient in cholera collapse. The hot liquid (usually at 110° Fahr.), passing into the pulmonary artery, is directly applied to the inner surface of the contracted vessels, whose spasm being thus relaxed, the blood passes freely on, and the state of collapse is for the time removed. The injection is a form of hot fomentation, but with this important difference, that the fomentation is applied directly to the inner surface of each small artery, and not through the integuments to their outer surface.

The faintness which is not unfrequently induced by a hot bath is a result of the relaxing effect of the warmth upon the subcutaneous vessels. There is, consequently, a copious afflux of blood to the skin, and a correspondingly diminished supply to the deeper parts, including the brain. Now, it is remarkable that the pulse of a patient in cholera collapse is often rendered fuller and stronger by a hot bath. The venous blood returning to the heart has its temperature raised; and, in proportion to this elevation of temperature, it will tend to relax the arterial contraction in the lungs, and thus give freedom to the whole circulation. The action of the warmed blood will be similar to that of the hot injection into the veins, but less powerful in proportion as the temperature is less elevated. When bleeding was a common practice in India, it was not unfrequently found that while, during extreme collapse, the circulation was so much obstructed that no blood flowed from a cut vein, immersion in a hot bath so helped on the circulation, that the blood soon flowed from the vein with comparative freedom, and with speedy relief to the patient. It is very noteworthy, that the simultaneous application of two methods of treatment, the hot bath and venesection, both of which singly, and still more when combined, tend in ordinary circumstances to cause faintness, should give increased volume and force to the arterial pulse of a patient in cholera collapse. A convincing proof is thereby afforded of the essential difference between the collapse of cholera and the collapse of ordinary exhaustion, whether the result of cardiac weakness or loss of blood-constituents. The influence of the warmed blood in promoting the circulation is the exact counterpart of an observation of Harvey's, to the effect that, when the fillet is removed from the arm after venesection, the blood, which had stagnated in the veins and become chilled, as it returns to the heart carries with it a sensation of cold; and "fainting frequently supervenes even in robust subjects." (*On the Motion of the Heart and Blood*, Sydenham Society Translation, p. 58.) Harvey also noticed similar results from putting a bandage on the arm, so as to make the veins swell; immersing the arm in very cold water or snow; then suddenly removing the bandage, and allowing the chilled blood to flow back to the heart. (*Ibid.*, p. 138.) We now know that the temporary check to the circulation after such an experiment is due to contraction of the minute pulmonary arteries excited by the chilled blood.

And now to return to the action and uses of hot fomentations. We find that, in some cases of severe throbbing headache, no remedy affords so much relief as the continuous application of a sponge wrung out of hot water to the forehead and temple while the head is kept somewhat raised. The warmth relaxes the superficial arteries: there is, consequently, a partial diversion of blood from the internal carotids through the external carotids to their branches beneath the skin. In some cases, headache is relieved by immersing the hands or the feet in warm water. The arteries are relaxed, and blood is thus diverted from the head. On the other hand, the effect of putting the feet and legs in cold water is to cause "a determination of blood to the head"; and we find that the headache of anæmia and exhaustion is best relieved by keeping the head low while cold is applied to the forehead and temples. Thus, the superficial vessels being contracted by the cold, more blood is diverted through the intracranial arteries to the anæmic brain.

Dry cupping acts in a somewhat similar way to hot fomentations. It draws an abundance of blood through the arteries into the subcutaneous capillaries, which, when the cups are removed, returns through the veins to the heart. In order that dry cupping may be most effectual, each cup should be removed as soon as the vessels beneath are well filled, and then it should be reapplied. The object is first to draw the blood through the arteries into the capillaries; then to allow it quickly to return by the veins; and not to keep it stagnating in the capillaries, which will happen if the glass be retained long on one spot. Another point is not to draw the blood into the skin with sufficient force to cause extravasation, the effect of which will be to impede the circulation through the skin, and so to divert more blood into the inflamed tissues beneath. The sole object of dry cupping, be it remembered, is not to *irritate* the skin, but to draw blood rapidly from the arteries, and as rapidly to transmit it through the capillaries to the veins, in its backward course to the heart.

Cold applications are employed not merely to subdue inflammation of the skin, where they act by contracting the vessels, and so lessening the afflux of blood to the inflamed tissues; but I am told that it is now a common practice in Germany to apply ice to the chest in cases of pericarditis. What is to be said of this practice? In my judgment, the practice is attended with much risk. The continuous application of cold to the surface of course causes contraction of the subcutaneous arteries. The secondary results of this may be diverse in different cases. Through the nervous system there may be a sympathetic contraction of distant arteries. The arteries of the left hand may be thus excited to contract while the right hand is immersed in iced water. Thus pulmonary hæmorrhage may sometimes be arrested through the sympathetic contraction of the minute arteries of the lung, excited by the application of cold to the surface of the chest; and a vulgar remedy for epistaxis is a cold iron key applied to the skin of the back. On the other hand, the contraction of the superficial vessels under the influence of cold may drive more blood into deeper and distant parts. Thus, when the inmate of a Turkish bath is rendered faint in consequence of the large afflux of blood to the overheated skin, and a correspondingly deficient supply to the brain, a cold douche contracts the cutaneous vessels; then instantly the brain gets a larger supply of blood, and the feeling of faintness is removed. A temporary removal to the cooling-room has the same restorative influence; the cutaneous vessels contract, and more blood is diverted to the brain. So the six lights of a gas chandelier may have been burning steadily, without noise or smoke; but if now three burners are suddenly turned off, the other three, receiving an increased pressure of gas, will often begin to whistle and smoke. The same hydraulic and pneumatic principles are applicable to all these phenomena; and a consideration of these facts suggests that the application of cold to the surface, in cases of inflammation of the deeper tissues, is a remedy of doubtful and possibly of dangerous tendency.

Counterirritants.—In my judgment, a very common mistake is that of applying strong counterirritants, so as to inflame the skin, in the early stage of acute inflammation of the viscera or their investing membranes. The result is, that another inflammation, with its attendant pain and febrile excitement, is added to the primary disease. The discomfort resulting from this may be so great that the patient will think less of his original malady, which may, nevertheless, have been aggravated by the cutaneous inflammation. It should be borne in mind, that the circulation through the vessels of an inflamed part is more or less impeded, more or less stagnant. If, then, in a case of acute pleurisy or pericarditis, we excite inflammation in the skin over the chest, the result is the opposite to that which is brought about by local bleeding, by dry cupping, and by hot fomentations; for, whereas by these means we divert blood from the deeper tissues to the surface, the effect of an inflamed patch of skin is, through the arterial connexions, to throw back the blood upon the parts beneath. In applying irritants to the skin in the early stage of acute internal inflammation, care should be taken not to allow the effect to pass beyond the stage of active engorgement of the vessels; it should stop short of capillary stasis and inflammation. I have already said that local bleeding has been supposed to operate only as a form of counterirritation. It would be nearer the truth to affirm that the so-called counterirritants act after the manner of local bleeding, by diverting blood from the inflamed parts beneath. Vesication by means of cantharides may sometimes be useful, by the depletory serous effusion from the vessels.

Let me now gather up into a few sentences the general principles which I have endeavoured to establish.

The object of blood-letting is to lessen hyperæmia of certain parts of the vascular system.

Venesection is adapted for lessening engorgement of the venous system, which is usually a result of an impeded circulation through the lungs and left heart. When there are manifest signs of engorgement of the veins and obstruction in the lungs, a feeble arterial pulse does not contraindicate venesection; and there is no inconsistency in combining the practice of venesection with the administration of stimulants.

Local bleeding, by leeches or by cupping, is useful in many cases of inflammation. The bleeding acts by diverting blood through the superficial arteries from the deeper arteries which supply the inflamed parts.

Warm baths, fomentations, poultices, and dry cupping, act in an analogous way to local bleeding, but without actually removing the blood from the system.

Cold contracts the vessels to which it is immediately applied. The result of this may be a sympathetic contraction of distant and deeper vessels, or a driving in of blood to deeper parts. Cold to the surface, therefore, is an uncertain remedy in cases of internal inflammation.

The application of strong irritants, so as to inflame the skin, in the early stage of acute internal inflammations, is a distressing and often a mischievous practice.

As a general rule, in cases of inflammation, those local remedies are the most efficacious which are the most painless, and which quicken in the greatest degree the cutaneous circulation.

TREATMENT OF FRACTURED CLAVICLE BY A CROSS-SHAPED SPLINT.

By G. GREWCOCK, Esq., Nottingham.

FRACTURED clavicle, when the fracture is oblique and there is much displacement, occasions much trouble to keep the fragments in proper apposition. When the ordinary figure-of-8 bandage is applied loosely, it is of no use; and when it is put on with the tightness necessary to replace the fragments, it very frequently excoriates the skin, and, by slipping forwards, which is often the case, the bandage presses on the dorsal end of the fractured bone, and, by pressing this downwards, exactly opposes the indications for which it has been adopted. In fact, so dissatisfied have some surgeons become with the figure-of-8 bandage, that it has been in many cases discarded; and one of the most important indications of the accident—namely, to keep the shoulder well back—has been omitted. A plan has lately come into use of keeping the patient in bed two or three weeks, a method which is extremely distasteful to the patient, and is equally unsurgical and unreasonable.

Now, in briefly considering the nature of the accident, the deformities attending it, and the obstacles to be overcome to keep the bones in proper contact for union, are the following. 1. The outer fragment, by the weight of the arm, is carried downwards. 2. By the strong muscles passing from the cheek to the arm and shoulder, the outer fragment is carried directly forwards and inwards. We have thus three indications to fulfil: by raising the arm, the displacement of the outer fragment downwards is prevented; by the pad in the axilla, it is brought outwards; and by bringing back the shoulder, the opposition of the pectoral muscles is counteracted.

The plan of treating this accident which I wish to bring under notice is not entirely new, as I find, from some old books on Fractures, that a modification of it, by the upper straight splint, was used two hundred years ago. A simple cross-shaped splint fulfils perfectly all the three indications of the accident, without the disadvantages of the figure-of-8 bandage. The manner in which it is applied is extremely simple. The shoulders, having been well brought back, are fastened to the extremities of the splint by means of a bandage passing under the axilla and over the shoulder, thus effectually overcoming the resistance of the thoracic muscles. A small pad is placed in the axilla, and the bandage, passed over the arm and fastened behind to the splint, keeps the pad in its place.

I have treated several cases by this method, and found it give greater ease to the patient than the figure-of-8 bandage, and fulfil perfectly all the indications necessary for the successful treatment of the accident.

THE INTRODUCTION OF SANITARY TEACHING INTO PRIMARY EDUCATION, AS AN INDISPENSABLE CONDITION OF EFFICIENT SANITARY REFORM.*

By J. H. BRIDGES, M.B., Bradford.

Almost every one who has paid attention to sanitary questions is convinced of the necessity of abandoning to some extent the two principles upon which Parliament has hitherto proceeded—the principles of permissive Bills and of local self-government. It is seen by all disinterested observers that local bodies, whether Boards of Guardians or Town Councils, uninstructed for the most part, and influenced mainly by one motive, that of keeping down the rates, are not likely to avail themselves, and, in fact, do not avail themselves, of the permissive powers entrusted to them by Parliament with anything like the adequate degree of energy. Slowly and cautiously the public mind is feeling its way towards the dreaded, and justly dreaded, principle of centralised state action. The experience of our factory-inspection and school-inspection has shown the most suspicious advocates of voluntaryism that the Home Office may safely be entrusted with the power which local selfishness is incompetent or unwilling to exercise; and it is rapidly becoming recognised, that the protection of young children from ignorance or from overwork is not more important and not more attainable by state intervention than the protection of human life from preventable disease.

Still, as the principle of local self-government is not only very valuable in itself, but is so dear to Englishmen that, under any system of sanitary legislation, many important functions must necessarily be entrusted to it, it is worth while to examine the sources from which our objections to it spring, and to see whether some of them do not admit of a permanent remedy. Those sources are two:

I. The natural selfishness of property-holders;

II. The ignorance of ratepayers.

We need not discuss the first of these. It is a permanent obstacle; its removal at least is likely to be slow enough, depending as it does upon an improved standard of public morality in a future far distant. But the second is removeable; and as it is, in my opinion, the chief source of all opposition to sanitary work, whether local or central, it is worth our while to look about for the best and speediest means for its removal. For, with the best and most elaborated machinery of state sanitary action that can possibly be devised, the result will be unsatisfactory until we touch the reason and the will of those to whom our machinery is applied. "You may take a horse to the water: you cannot make him drink." This is as true of health as of water, and it is a good deal more true of men than of horses.

Every benevolent landlord who builds model cottages knows well enough how his efforts are frustrated by the ignorance of his tenants. The patent ventilators are choked up with rags; the chimney is boarded up; the window is nailed down; the water-closet has been out of order after the first week, or the dry ashpit has been turned into a moist and festering dunghill; and, worst of all, the weekly wages have been eked out by lodgers. Navvies occupy the second and the third bedrooms; and parents, sons, and daughters are huddled into the first.

Such is the constituency, or such, at least, is a very large portion, if not a majority, of the constituency who elect our existing "nuisance-authorities". Such are the men who elect our town councillors; and to town councillors the British public is at present content to entrust the administration of what, in our present stage of civilisation, is perhaps the most important, and assuredly one of the most difficult, departments of law—the laws which protect the atmosphere from poison. The Town Councils, it must be said to their credit, are in many cases somewhat more enlightened than their constituencies. But, with such constituencies, how can they be expected to spend money freely for preventive medicine?—that is to say, for a purpose which, when it is most perfectly attained, has least to show for itself. I need not enlarge on the other defects and vices of municipal management—the singular jealousy of professional intervention, the tendency to jobbery, to play into one another's hands by voting for expensive and useless alterations, etc. These matters are well known, and beside my present theme, which is, that, of all obstacles to efficient sanitary reform, the most obstructive, but also the most removeable, is not the inefficiency of the Town Council, though that be deplorable, but the ignorance of the ratepayers who elect them. For, be it remembered, no centralised system, however thorough, can attain our object completely, so long as this obstacle exists. I have spoken of our factory system of inspection with strong approval. Its efficiency is undoubted, and results, as I have said, from its independence of municipal authority. But every certifying surgeon knows the zeal of mothers to pass off children of eight years old for nine, and of twelve for thirteen; and every one conversant with the working of Lancashire and Yorkshire mills knows that many more things go on between the inspector's visits than are dreamt of in his philosophy. And, if efficient factory inspection is difficult, efficient house-to-house sanitary inspection is, and must ever remain, tenfold more difficult. Perhaps in no country in the world will it be so difficult as in this. The Englishman's jealousy of government is excessive, is perhaps morbid; but jealousy is not the word. The word, perhaps, hardly exists in the language strong enough to express his ire at anything which bears the stamp of inquisition into domestic privacy.

But I pass, without further comment, to the remedy—a remedy slow in its operation, but which goes down deep to the root of the disease—a remedy which, so soon as its use is general, will quadruple the efficiency of all sanitary legislation, and which, it may be, is destined, in the ultimate future, to supersede it altogether. The remedy I speak of is the compulsory and official introduction of sanitary teaching into our primary schools. In this way only can we touch, but in this way we shall touch effectually, the ultimate element of our problem. Here alone can we find the ποῦ στῶ; but with this ποῦ στῶ we can move the sanitary world.

That physiological truth should be in one way or other incorporated into our educational system, is a conviction which is rapidly becoming general. It has even penetrated into the venerable seat of learning in which we are now assembled. Yet, if it were proposed to teach physiology in our national schools, the proposition would be met with disregard or ridicule; and, without discussing whether the ridicule would be rational, I content myself with remarking that this proposal is not what I am now advocating. I am recommending merely that a list of certain very elementary sanitary truths should be inculcated by all certified government teachers on children above eight or nine years of age, with the same universality and strictness that we teach the alphabet or multiplication-table; and that the government system of inspection should provide for this being efficiently done.

I am well aware that the tendency of recent legislation has been to curtail rather than to extend the curriculum for which governmental aid is afforded. It has been argued forcibly and successfully at least, if not rightly, that matters of opinion form no proper subject for governmental intervention; that the state is not bound to afford any but those elementary rudiments of education about which no question can be raised, and the absence of which is dangerous to social well-being. Religious teaching, and all teaching whatsoever beyond reading, writing, and arithmetic, should be left to voluntary agency. Such is the principle of the New Code; and, though there are many signs of a reaction against it, I, for my part, am willing to accept the principle on which that code is based. But I claim for the teaching of these elementary rules of health a very distinct priority over grammar, geography, English history, and all the other subjects which, until recently, have come under the supervision of the inspectors of our national schools. I claim for it precisely that degree of support which is accorded by common consent to instruction in reading, writing, and arithmetic. It rests upon a basis which is unquestionably stronger. If ignorance of the alphabet and of the laws of number is dangerous to the state, ignorance of the laws of health is unquestionably far more dangerous. A man may be a very useful citizen who cannot read; but the man who, in his ignorance, turns his house into a fever-nest, is as destructive as a bandit.

The objection to my view will probably be, not that it is undesirable, but that it is impracticable. To teach children of the age at which our primary schools are deserted for the factory or the farm, anything worth knowing on such a subject, it may be argued, is Utopian. It is quite true that anything like systematical physiological teaching would be absurd to attempt. This is not what I advocate. What I would wish is simply the dogmatic inculcation of a few very simple sanitary precepts. Wise men of every age have seen very clearly that there are many things which may be usefully taught, and which, indeed, must be taught, before they can be thoroughly understood. No religionists, whether Catholic, Anglican, or Presbyterian, suppose it necessary to confine the teaching of their respective catechisms to students of theology. It would not be difficult for our Medical Council, or for a Committee of such an Association as this, to draw up an exceedingly short and simple catechism of health, containing no proposition which should not be as incontrovertible as the multiplication-table, touching upon no disputed question whatsoever, and which, therefore, might be ordered by the Privy Council to be taught in all schools receiving government aid. I insist very strongly upon the entire exclusion, so far as practicable, of any topic on which any controversy might possibly be raised; for it is quite as essential, in my opinion, in science as it is in religion, that the sanction of government support should not be given to doctrines the removal of which, supposing them ultimately to be found erroneous, would have political as well as intellectual obstacles to contend with. And as, in the present vexed state of all economical questions, I should regret to see the sanction of the Privy Council given to any elementary treatise containing, for instance, an attack or defence of trade-unions, so, in such a sanitary catechism as I am speaking of, it would obviously be improper to put forward crude assertions on any such doubtful question as that, for instance, of the use of alcoholic drinks. But it would be very easy to pick out a dozen elementary propositions with respect to air and water and the human body, about which no one could raise any dispute, and the practical inferences from which would be obvious and certain. Any child can be made to breathe into lime-water, and can see the difference produced by the air which comes from his lungs and the air which comes from a bellows. Any child can be shown the effect of carbonic acid on a candle, and will readily believe, half rationally, half on trust, that what is incompatible with light is incompatible with life also. Elementary dogmas connected with ventilation will follow in due course; the importance of windows opening at the top; of a free vent through the chimney; of sufficient space in the sitting-room and bedroom; of a through current from front to back, etc.—would naturally follow. Water might be dealt with in the same way; and perhaps some simple facts connected with the skin and the lungs might be added.

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* Read before the Public Medicine Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

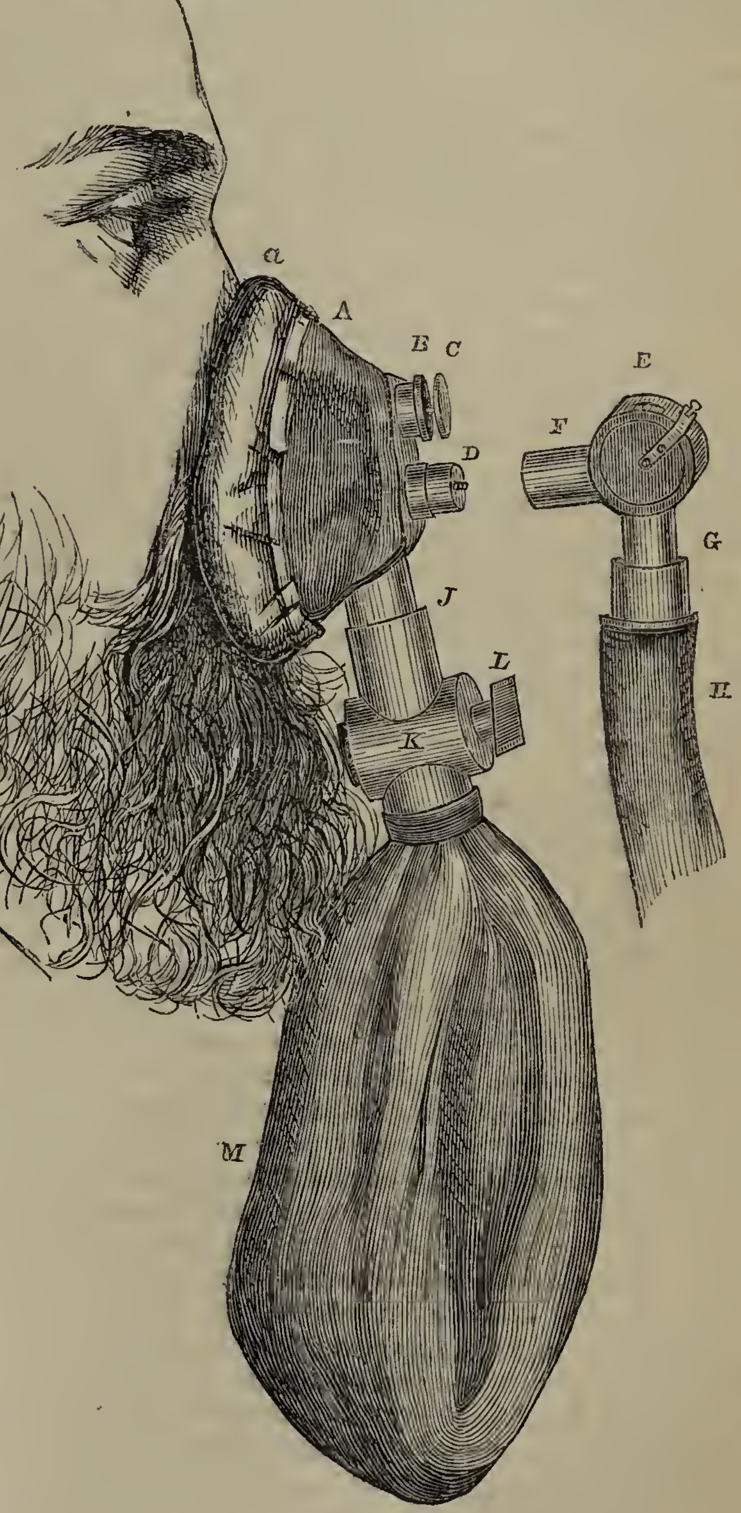
But, I will again repeat, the essential matter is neither that the knowledge thus given should be complete, nor that it should be fully and rationally apprehended. The object is to call the universal attention of the ratepaying public to health-questions from the earliest period of life; to implant, if I may be permitted the word, an universal prejudice in favour of health; to place it, in fact, upon the same footing, in the ratepaying mind, as reading, writing, and arithmetic. Anything short of this will not meet the necessities of the case. Desultory popular lectures are useful in their measure; but they are attended, of course, by the more thoughtful of our working classes—that is, by those to whom they are least necessary. What is essential is to touch the unthinking mass; and this can only be done by penetrating them from childhood with an organic instinctive dislike of poisoned air and water, of dirty skins and overcrowded rooms. Thus, and thus only, will you create a public to whom the application of such sanitary measures as may perhaps always be necessary in our complicated civilisation will not be distasteful, will be met halfway, and will, therefore, be tenfold more effectual.

ON THE ADMINISTRATION OF NITROUS OXIDE.*

By J. T. CLOVER, F.R.C.S.Lond.

THE inhalation of nitrous oxide as the means of preventing pain in surgical operations was suggested by Sir Humphry Davy at the close of the last century. We have, however, no record of any serious attempt to introduce the practice. Probably the gas was experimented with, but abandoned from its not uniformly producing anæsthesia. The apparatus at that time would fail to produce satisfactory results, if they were made use of by the most skilful administrator. In 1844, Dr. Colton successfully administered nitrous oxide to Horace Wells, an American dentist, who then had a tooth extracted without feeling pain. Wells tried to introduce the practice of using it in dentistry; but, after the adoption of ether inhalation, by Morton and Jackson, it was rarely used till about five years ago, when Dr. Colton, having improved the means of storing and using it, successfully revived the subject. When lately in London, he said he had records of twenty-eight thousand cases of inhalation without a single fatal result, and the only administration of nitrous oxide, he had heard of, which was followed by death shortly after, was one of extensive phthisis; he had never known a person made so ill by it as to need a carriage to ride home.

Mr. Rymer, a London dentist, published some experiments with the gas, in 1864, but they were not so successful as to induce any one to adopt the practice of giving it. In March last, Dr. Evans, of Paris, assisted by his nephew, administered nitrous oxide to some patients at the Dental Hospital, London, in the presence of several medical men who were invited to witness its effect. He brought with him a large India-rubber bag and an India-rubber tube (without any spiral wire inside it). The tube was connected with a wooden pipe supplied with valves for preventing the re-inhalation of the gas. Dr. Evans obliged the patient to breathe through the pipe by pressing his lips against it, whilst an assistant closed the patient's nostrils. Most of the cases were so successful as to render it undeniable that the gas, when properly used, afforded complete immunity from pain, and enabled the patients to walk away without any unpleasant effect in a few minutes. But some of the patients struggled a good deal before they were put to sleep, and some appeared to feel the pain during the whole time of the operation. These partial failures were the results either of the supply-tube having collapsed, or from air having been sucked in accidentally. The following modification of an instrument which I have used for the last seven years, for giving four per cent. of the vapour of chloroform, will be found to obviate the objections to the plan previously adopted. The bag is filled with nitrous oxide, and I hang it at my side by means of a loop of ribbon; a non-collapsible tube leads from it to a face-piece which is made of sheet lead, so as to be easily moulded to the face, and edged with India-rubber tubing, so that nose and mouth may be covered with an air-tight cap; two valves prevent the gas from being breathed a second time. This plan supersedes the necessity for pinching the nose; but when a patient breathes in a rapid and forcible manner, it does not always prevent a little air from being drawn in through the beard, or by the cheek falling in, during inspiration. To obviate this I have added a supplemental bag, holding about two hundred inches and connected by a three-quarter inch tube and stop-cock with the face-piece; the use of this, in preventing the access of air, and in saving gas, will be seen presently. As patients are apt to wake too soon, I have sometimes prolonged the anæsthesia whilst the mouth is still open, by giving the gas through the nose-cap which I have been in the habit of using with chloroform. Most of the patients to whom I have given it have had no



The woodcut represents the face-piece applied, with the supplemental bag, M, attached. A. Soft pad of India-rubber. C. The valve opening during expiration. D. The mount upon which the stop-cock, F G, fits; the spindle part of the inspiring-valve is seen projecting. E. Opening in the stop-cock of inhaling-tube, which permits air to be breathed whilst the face-piece is adjusted. When the little knob is turned down to G, the opening, E, is closed, and the supply-tube, H, leading from the bag of gas, is opened. M. The supplemental bag to be used or not by turning the stop-cock, L.

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* Read in the Medical Section at the Annual Meeting of the British Medical Asso- ation in Oxford, August 1868.

preparation, but I would not advise it to be taken just after a full meal; and the dress of the patient ought not to be very tight. It is well to warn the patient that a ringing noise and general sense of pulsation may be experienced, and that he should not make the fitting of the mouth-piece difficult by attempting to talk. When teeth are to be removed, a gag should be put between the jaws, so that there may be no loss of time in getting the mouth open. Whilst fitting the mouth-piece, the patient should breathe air only, and the gas should not be turned on till the patient breathes steadily. As long as he breathes calmly the supplemental bag should be empty; but when he begins to *pant*, the stop-cock should be opened. The gas received into this bag is so readily yielded during inspiration, that there is not any air sucked in under the face piece. When the breathing has become so calm as scarcely to raise the expiring valve, the supplemental bag should be compressed every fifth or sixth respiration and allowed to refill with fresh gas; by this means the gas will be sufficiently free from carbonic acid to allow its elimination from the lungs. Mr. Coleman has invented an ingenious apparatus for absorbing the carbonic acid of the expired gas by means of hydrate of lime. I have had no reason to think that any harm results from the small amount of carbonic acid breathed in using my apparatus; but Mr. Coleman has certainly obviated one great objection to the use of a simple bag, in and out of which the patient is made to breathe without any exit for the respired gas. After inhaling twenty or thirty seconds, the patient begins to assume a livid appearance, this must not be taken as a sign of anæsthesia. I have often breathed the gas before a looking glass, and observed a decided lividity in my lips, whilst my sense of touch was perfect. In about fifty seconds the expression of the patient suddenly alters, his eye becomes unsteady and his hands slightly convulsed; I usually continue the inhalation ten or fifteen seconds after this, unless the respiration become very slow or stops, or unless the pulse become very quick or unsteady. The sudden dilatation of the pupil is another sign which should cause us to remove the gas. If general muscular rigidity have not come on during the inhalation, it often does so when the operation begins, and then the breathing may cease for ten or fifteen seconds. This should excite no alarm, if the pulse can be distinctly felt; the free inspiration which will follow will quickly restore a florid colour to the lips if the heart act efficiently; and, as has been stated, the inhalation should be immediately discontinued if the pulse threaten to stop. The statc of complete insensibility does not usually remain more than half a minute after the removal of the mouth-piece, provided the patient breathe regularly; but there is a period after this when, although there is a sensation of something being done, it is not felt as pain. I had a tooth extracted a few weeks ago after inhaling the gas. I had no knowledge of the first application of the forceps, but before the tooth was extracted I felt that it was wriggled about, yet with no more sensation of pain than as if I had held the tooth with my fingers. Just before recovery, men and women alike often manifest hysterical symptoms. The will for a short time seems very weak, but I have never seen a prolonged fit of hysteria, as I have after chloroform; these symptoms always disappear in two or three minutes. Since the middle of last April I have recorded the cases in which I have given the gas, and they amount to 384. In all these cases there has been produced an amount of lividity, which in other circumstances I should have thought dangerous to life; in the majority, convulsive twitchings of the hands have occurred, in a *few*, dilatation of the pupil. In several, the pulse has become quick and weak, but never imperceptible at the wrist, and the recovery has been, in all cases, rapid and complete, so that the patient required no assistance in walking away. I am aware of only three cases of sickness where vomiting occurred within a few hours of taking the gas, and it was even then attributable to other causes.

My cases have been chiefly those of teeth extraction; two patients have had as many as seven teeth painlessly removed in the sleep of one inhalation; but, when more than three teeth have required extraction, I have generally noticed signs of returning consciousness, and allowed the patient to awake and rinse his mouth before repeating the inhalation; this is sometimes important, on account of the accumulation of blood in the pharynx which would cause a difficulty to the passage of air, should any necessity arise for artificial respiration. Patients seldom shew any reluctance to begin inhaling a second time. A patient of Mr. Rogers had ten teeth removed in one day and, a few days afterwards sixteen more were removed painlessly in three inhalations. The lady laughed hysterically every time on awaking, but only for a minute or two. I have applied the gas for several cases of iridectomy; in some of these the convulsive movement of the eye-ball delayed the operation, but it was completed without pain. I have also used it in operating for strabismus, and for wrenching an anchylosed knee. It is well suited for reducing dislocations, for removing the toe-nail, and opening fistulæ, boils, and abscesses of all kinds. Two of my patients were subjects of epilepsy, but the gas did not affect them worse than others.

Whether nitrous oxide will ultimately displace chloroform and similar bodies, in operations which may last ten minutes, and leave much smarting, is improbable. The rapidity of recovery and absence of unpleasant consequences contrast favourably with chloroform; but when it is important to keep a patient quiet for as long as ten or fifteen minutes, chloroform is the best agent with which I am acquainted. I have never had a fatal accident from the administration of chloroform or of any other anæsthetic; and I think, if the air contain no more than 4 per cent of chloroform vapour, that a subject who had been allowed to inhale this till his breathing ceased would be restored by artificial respiration. In my experiments with nitrous oxide on dogs, cats, and rabbits, I have always found that respiration stopped before the circulation, and that, if the gas were removed when the animal was apparently dying, and at its last gasp, or if air were admitted by artificial respiration, it always recovered. If dangerous symptoms should arise from the inhalation of nitrous oxide gas being continued too long, artificial respiration would be the proper remedy. The chest and abdomen should be forcibly compressed six or eight times, at intervals of a second, whilst the patient is sitting or lying; if this produce a florid colour in the face, it will suffice, if not, the patient should be placed horizontally, and Silvester's method resorted to. It is to be regretted that the mode of making pure nitrous oxide on a small scale is difficult. Mr. Fox, the dentist, who has obligingly supplied me with gas, has exhibited to the members of the Association the apparatus which he uses. The gas is sold in a condensed form, by Mr. Barth, of Duke Street, Bloomsbury.

ILLUSTRATIONS OF THE VALUE OF THE MICROSCOPE IN THE TREATMENT OF THE STERILE CONDITION.*

By J. MARION SIMS, M.D., Paris.

To illustrate the necessity of the microscope in this department of surgery, I shall append a few cases, drawn up as succinctly as possible.

No 1 had consulted two of the most eminent physicians in England and remained under the care of one of them for many weeks. She said that during the time the neck of the uterus was repeatedly cauterised. She got impatient and went to another physician who told her that the caustic treatment that she had submitted to was worse than useless; and that a surgical operation was the only thing to be done. She consented to it and he incised the cervix bilaterally. She did not conceive, and two years afterwards came to Paris to see me. I found the uterus normal in all its relations, the os tincæ and cervical canal sufficiently patulous. I explained to both husband and wife the importance of examining the cervical mucus four or five hours after coition. They returned the next day; the cervical mucus contained spermatozoa; therefore there was no necessity for any further surgical operation. But the spermatozoa were all dead; therefore there was a necessity for a treatment to rectify the vitiated cervical secretion. She remained in Paris a few weeks under my care, was cured and became a mother in nine months after her dismissal. Now, if the first physician had used the microscope, as I direct, he would probably have found that the semen never entered the cervix at all; and, if the second one had done the same thing, he would certainly have found that the mucus of the cervix poisoned the spermatozoa.

No. 2, a lady, in the highest ranks of life, was sterile. The cervix uteri was incised bilaterally. She had pelvic cellulitis afterwards. Two years after this I saw her, she was still childless. The microscope showed that the cervical mucus, examined four hours after coition, killed all the spermatozoa. While this condition exists conception is impossible.

No. 3, sterile, was treated for sterility in America for a long time (two or three years). She came to Europe; had the cervix cut open, and was sent away with the promise of offspring. I saw her some time afterwards. The microscope proved that the husband was sterile. Therefore, the previous treatment in America and the operation in Europe were useless. I could relate several other cases like the above. But, as I have often made the same mistake before I fully understood the value of the microscope, I compassionately forbear.

No. 4, married four years; sterile. She had dreadful dysmenorrhœa, followed by discharge of a bloody brownish mucus of an offensive odour. The uterus was anteflexed; anterior wall hypertrophied; os uteri small. I was in doubt, at first, whether to recommend an incision of the cervix or not. The husband was a distinguished physician. I told him that an operation would be necessary if the semen did not enter the canal of the cervix; but if it did enter, the case might be cured without cutting. The doctor and his wife came to see me the next day, some five or six hours after sexual intercourse. A drop of mucus from the cervix contained spermatozoa in great abundance. Here, the whole question of diagnosis and treatment was settled at once, and in the only way possible, by the microscope. For this one examination proved all that was essential to know; viz., 1. That the semen was perfect: 2. That it entered the cervical canal, and therefore there was no surgical operation necessary: 3. That the cervical mucus poisoned the spermatozoa, and hence a treatment directed to the utero-cervical canal was indicated. After the next menstruation (a month's treatment) the cervical mucus was considerably improved, for it contained large numbers of active spermatozoa. At the end of two months I found living spermatozoa in the cervical mucus, thirty-six hours after coition. All treatment was now suspended, and after the next menstruation conception took place.

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* Concluded from page 466 of last number.

No. 5.—Married five or six years without offspring. The uterus was small and retroverted by a fibroid about the size of a walnut on its anterior surface, just at the junction of the cervix and body. The os was very small, so small that one of the most distinguished of our accoucheurs advised incision of the cervix to admit the passage of the semen, although he was not in the habit of performing the operation, and, as a general rule was opposed to it. In former years, I would have given the same advice without the slightest hesitation. But now I said, No. Let us first see if the cervix admits the semen. If so, the operation is hardly necessary. If not, it is. I saw the wife the next day. A drop of cervical mucus under the microscope determined the question against the operation at once; for the mucus was full of spermatozoa, but they were all dead. During the treatment of this case I have seen the mucus in the lower segment of the cervix full of living spermatozoa, while that taken from the os internum was full of dead and dying ones. Nothing but the microscope could have revealed the truth in such a case as the above.

No. 6, married eight years, sterile, had been treated by several distinguished physicians for the sterile state, and had been to Ems and other watering-places, all for no result. At last she came to Paris to see my friend Sir Joseph Olliffe, and he called me in consultation. I found a long, conical, indurated cervix, with a small os—just such a case as I would have pronounced sterile by necessity, and just such as I have over and over again operated upon without further thought. But now I wished to be sure, before recommending an operation. After explaining the necessity for it, I requested this lady to come and see me four or five hours after coition. She returned the next day. I could find no spermatozoa in either vaginal or cervical mucus. I requested her to come again. I saw her two days afterwards—no sign of spermatozoa. I then told her that perhaps the seminal fluid all passed away in the act of rising and dressing. She thought it did. After further explanations, she readily agreed to send for me some morning, to verify the state of affairs. She was a very sensible woman, and fully understood the reasons given. A day or two afterwards, I saw her in bed about thirty minutes after sexual intercourse. The vagina was full of semen; and I removed about a drachm of it, and went home immediately for the microscopic examination. But, unfortunately, there were no spermatozoa. Not very long ago (seven or eight years), I had the idea that sterility was essentially a female infirmity; that men were never sterile, except when impotent; and that any man legally competent for the married state was physically so for procreation. But the microscope unsettles and settles all such vague notions. It is natural to suppose that a strong vigorous man is more fitted for procreation than a weak or puny-looking one. Some of the greatest lights of the profession have held such views as this. It was only two or three years before the death of the lamented Trousseau, that he said to me, in speaking of a case we had under consultation, "If our patient only had a man for a husband, all would be right." I subsequently found out that the husband's passions were strong; that his semen was perfect; that it entered the cervix in great abundance; and that the spermatozoa were there poisoned by a vitiated mucus. I mention this to show that we must not judge from appearances, when it is so easy to settle the question by the microscope.

No. 7, married nine years, sterile, had consulted several distinguished physicians, one in Germany, who told her that it was useless to try any further treatment, as she was now well enough, and it was the fault of her husband that she did not conceive. I explained to her that there was nothing easier than to determine that question at a single visit. She came the next day. I removed some vaginal mucus; also a mass of cervical, as large as a pea, that was just hanging from the os; also some from within the canal. The vaginal mucus contained spermatozoa, but, of course, they were all dead. The mass of cervical mucus that hung out of the os contained spermatozoa in abundance, all dead. The mucus from the interior of the cervix was wholly devoid of spermatozoa. Here the microscope settled the whole question. There was no longer any guesswork. 1. It was not the fault of the husband that there had been no conception. 2. The seminal fluid did not enter the canal of the cervix. 3. The spermatozoa were killed by the cervical mucus, where the two came in contact. As the shortest and best method of treatment, I incised the cervix. After the subsequent menstruation, semen was found to enter the canal of the cervix. After the next period, they were found there in abundance, and all living. In three months thereafter, she conceived. In another three months, she miscarried, in consequence of a fall. Six months after this, she conceived again; and a year ago she became a mother.

No. 8. We often fail to cure curable cases because the treatment is sometimes so tedious that both patient and doctor get mutually tired, and both are glad to quit. Madame —, aged 34, had one child eight years ago; subsequently had chronic cervical inflammation; was cauterised too much. The cervix became indurated, and the os contracted. She wanted more offspring. I was in doubt about cutting open the cervix. A microscopic examination proved that the semen could not enter the cervix. Accordingly, I incised the os. After this, the semen entered the canal of the cervix, but its mucus killed all the spermatozoa. The mucus was not as clear and limpid as it should be, and it had white milky specks in it, looking as if it had been mixed with a little of the vaginal secretion. The lining membrane of the cervix was too red and rather granular. This was cauterised even up to the cavity of the uterus; and various other local, as well as general remedies, were adopted and carried out from time to time for twelve months. The character of the cervical secretion gradually improved, and at times showed some living spermatozoa, and again all were dead. This patient did not despair notwithstanding a fruitless treatment for so long a time.

A sponge-tent had revealed long ago a small flattened cystic tumour in the canal of the cervix situated on its posterior face, just at the os internum. I had repeatedly suggested the propriety of extirpating it. After all other means had been exhausted for restoring the cervical secretion to a normal state, the operation was agreed to. In June 1867, nearly two years after we began the treatment, a sponge-tent was introduced; the canal of the cervix was fully dilated, and a cystic tumour about the size of the end of the little finger was extirpated. Three months afterwards, the cervical mucus was greatly improved; and on March 1st last, after a treatment of more than two years and a half, I examined the secretions fifteen hours after sexual intercourse, and I had the satisfaction of saying, "At last, madam, I find the cervical mucus perfect; it is full of spermatozoa, and all very active. We can now hope for conception." Conception dated from that period, for she did not menstruate afterwards. But for the microscope, I would have dismissed the case as cured after the incision of the cervix uteri, and she would have remained in all probability sterile to the end.

Once I thought that the most common obstacle to conception was a contracted cervical canal, contracted at its outlet at the os internum, or throughout its entire length. But, if I were now asked, "What is the most frequent obstacle to conception?" I should unhesitatingly say, "An abnormal utero-cervical secretion that poisons or kills the spermatozoa." I can call to mind numbers of cases where, in former years, I incised the cervix, when the operation was satisfactorily done, and yet the sterility persisted. In some of these I have now not the least doubt that the husbands were sterile, and in others I have as little doubt that the cervical mucus was poisonous to the spermatozoa. If I had then possessed the exact knowledge of to-day, how much more satisfactory would it have been for me—how much better for my poor patients. I could go on for hours with cases to illustrate the principles already laid down. The foregoing are taken at random, and are sufficient for the purpose. I have not treated a single case of sterility as such in the last six years, without determining the three questions so essential to success that were stated at the outset of this paper, except the half-dozen cases already alluded to, and in these the microscope at last revealed the truth.

Before closing this paper, pray allow me, sir, to say a word personal to myself, which is, at the same time, in vindication of the honour and progress of our glorious profession. When my book on *Uterine Surgery* appeared in February 1866, it was noticed generally favourably by the medical press, and always honourably, with but one exception. The *Medical Times and Gazette*, one of the most excellent and influential journals of the day, conducted with great ability, and usually with liberality and decorum, condemned, in the strongest terms, my investigation of the seminal fluid, and said that "this dabbling in the vagina with speculum and syringe" was incompatible with decency and self-respect. Now, sir, for myself, I see no indelicacy or impropriety in taking mucus from the vagina and uterus for microscopic examination. It is no more indelicate, no more impure, than to investigate the character and properties of saliva, or bile, or urine, or fæces. And where is the scientific physician now-a-days, who could or would dare to give an opinion on any obscure and complicated disease without such investigation? To answer that question, sir, I beg leave to call to the witness-stand such men as Beale, Bence Jones, Hughes Bennett, Gull, George Harley, Sir William Jenner, George Johnson, Stokes, and the immortal names of Bright and Addison; and in my own country, the great names of Alonzo Clark, Austin Flint, Metcalfe, and a host of others. Sir, opposition and ridicule are ever ready, but never yet crushed out a great truth. With the simplicity of my nature, and with the honesty of my purpose, there can be no indecency, and no sacrifice of self-respect in making any necessary physical examination whatever, if it be done with a proper sense of delicacy, and with a dignified, earnest, and conscientious determination to arrive at the truth—a truth without which every step is in the dark, but with which all is as clear as the noonday's sun.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. GEORGE'S HOSPITAL.

CASE OF HYDATID CYST OF THE LIVER RUPTURING THROUGH THE KIDNEY.

(Under the care of Dr. BARCLAY.)

HYDATID tumours of the liver not unfrequently rupture, and empty their contents, either externally or internally, into the pleural cavity, intestines, peritoneal cavity, or other part, as the case may be. Of the numerous cases now recorded, few, if any, are given where the cyst burst into, and the contents were discharged through, the urinary passages. Dr. Murchison, in his valuable *Lectures on Diseases of the Liver*, observes that, although hydatid tumours of the pelvis occasionally open into the urinary passages, he is not acquainted with any case where this has happened when the primary tumour has been in the liver. No doubt, however, in the following case, the notes of which were kindly supplied by Dr. Reginald Thompson, Surgical Registrar, the cyst ruptured in this way; for, although the fluid was not examined microscopically, still the appearance of pus in the urine, the result of inflammation, caused by the cyst in the efforts to empty its contents; and the sudden discharge of the fluid, with the subsidence of the tumour, leave no doubt as to the nature of the case. There is also every reason to believe that the tumour was hepatic. There was another feature of some interest in the case. Although a fine trocar and cannula were used—and this is a matter of considerable importance—still symptoms of peritonitis ensued, and that within half an hour after the operation. Probably, in removing the instrument, a small quantity of fluid had escaped into the peritoneum—an accident which is to be carefully guarded against by pressing the punctured part of the abdominal wall against the cyst while withdrawing the instrument.

A. L., aged 29, a plasterer, was admitted on October 16th. It appeared, from the history, that the patient was accustomed to subsist largely upon pork and sausages; indeed, he said he had "pretty well lived on pork". Two years ago, he remembered passing tapeworms. For the last five months he had suffered from a gradually increasing tumour, which began at the lower part and right side of the abdomen. It was accompanied with slight pain, but otherwise it gave no inconvenience.

On admission, he had a considerable swelling on the right side of the abdomen, or rather two or three globular elevations, the depressions between them being slightly evident. These were apparently connected with the liver, and did not extend much over to the left side. Distinct and tense fluctuation was perceptible, as if fluid fully distended the sacs. There was no derangement of breathing. A drachm of oleum terebinthinæ in castor-oil was administered; and next day some bits of tapeworm, measuring forty inches, were found in the motions. On the 23rd, at 2.30 P.M., an exploratory needle was introduced by Mr. Holmes; and a small quantity of purulent greenish fluid was drawn off, but no hooklets discovered. Half an hour afterwards, he was seized with pain in the belly, for which he was ordered a grain of opium every four hours. By the following day, the pain had spread over the whole abdomen; the tongue was coated; he felt sick; the skin was hot, temperature 101; the pulse 120; and respiration 50. Next day, however, the pain had somewhat subsided; but the pulse and temperature remained as before. On the 26th, the abdomen was very tympanitic; the pain had returned with equal severity; and he had passed a bad night. Pulse 116, weaker; and temperature 100. He was now ordered a subcutaneous injection of morphia, one-third of a grain; and on the following day, when sickness supervened, turpentine fomentations. He had a favourable time after this, and greatly recovered. Fluid had by this time been discovered in the abdomen. He remained pretty well until December 26th, when solid caustic potash was applied to the swelling, followed by poultices, with the view of causing adhesion and of emptying the sac in this manner. This caused a good deal of pain; and a part of the skin, of the size of a shilling, sloughed. The measurement round the abdomen was $42\frac{1}{2}$ inches. Three weeks after this, the caustic was a second time applied, and he had increased in size. On December 29th, pus was observed in the urine for the first time; and the measurement round the abdomen was found to have diminished. This continued; and next day a quantity of fluid, similar to that obtained from hydatid cysts, also passed off by the same channel. This was followed by a still greater diminution in his size, the circumference measuring now only 39 inches. He left the hospital in a few days afterwards, in good health, refusing to permit any active interference (the abdomen having much subsided), and experiencing no pain or inconvenience from the disease. He was still, however, passing large quantities of pus with the urine.

HYDATID OF THE LIVER: PUNCTURED: CURED.

(Under the care of Dr. PAGE.)

THE following case presents no symptom of unusual interest. Jaundice is certainly not a common accompaniment of hydatid of the liver; but in this patient it was slight and transient, and due, probably, to congestion or slight inflammation of the liver or of the bile-ducts, from the irritating presence of the hydatid cyst.

E. H., aged 27, while lifting a weight nine weeks previously to admission, strained himself. He felt as if he had lost his breath, was faint and sick, and suffered pain in the abdomen below the hepatic region. On admission (July 26th, 1866), the left lobe of the liver was found to be large, prominent, and round. The right lobe was also prominent. On pressing the left lobe, he experienced pain, running through to the right. His conjunctivæ were slightly icteroid; urine normal. There was a gradual increase in the size of the liver downwards from this time. He had suffered little pain, and had been but once sick since admission; when he began, on August 15th, to suffer great pain in the side, increased on drawing a long breath, and a sensation as if the ribs were being pushed out. This pain left considerably, however, in a few days; and on the 21st he was easier; but there was slight jaundice, and his urine contained a trace of albumen. During September, he improved in some respects; but fine crepitation appeared at the bases of both lungs, and he began to suffer from severe sweats. He improved, however, while taking cinchona mixture with three grains of iodide of potassium three times a day. On October 8th, galvanism was ordered, after which his liver was noted to be much smaller, softer, and nearly normal in size.

The patient eventually left the hospital, and went to Walton, although he was then in good general health. He returned on March 26th, 1867, with a small hydatid tumour of the liver, which he had observed making its appearance two months before, a little to the right of a line passing through the right nipple and immediately beneath the ribs. When readmitted, the tumour was oval, not very elastic. The liver was still enlarged. The tumour was punctured by Mr. Tatum, and five or six defunct hydatids escaped with the fluid. The patient went out well a week afterwards.

THE MOORFIELDS OPHTHALMIC HOSPITAL.

MR. HUTCHINSON'S LECTURES ON THE USE OF THE OPHTHALMOSCOPE.—LECTURE II.

WE make the following extracts from the clinical part of Mr. Hutchinson's second lecture. (Friday, Oct. 30th.)

Case illustrating the Results of the Syphilitic Form of Choroido-Retinitis.—Our next case is that of a woman, aged 43, two of whose children have attended here during the past year for interstitial keratitis, the result of inherited syphilis. One child has lost her nose by that form of erosive lupus or phagedænic ulceration which sometimes occurs in syphilis. Last week, Mrs. B. consulted me about her own eyes. I found that for many years she has been almost blind of the left. With the ophthalmoscope, it is seen to be a beautiful example of the changes consequent on choroiditis disseminata, or perhaps more correctly, on choroido-retinitis. In former courses of lectures, I have often insisted that this form of choroiditis is usually syphilitic; and our present case is one in proof. The patient states that she had inflammation of her eyes a year or two after marriage, and at the same time a severe illness with head-symptoms. Inasmuch as we may here feel tolerably certain as to the cause, it is worth while to note particularly the conditions, that we may be better able to diagnose other similar cases. Only one eye is affected. The choroid is spotted all over with small patches of coal-black pigment, and with others of a white or yellow tint, where its epithelium is absorbed, and the sclerotic is seen through. Some few spots of pigment appear to be in the retina. The disc is pale, its margin ill defined, and its central vessels, both artery and vein, much reduced in size.

Myopia in low degree, with Crescents and with Symmetrical Disorganisation of Choroid at the Yellow Spots.—Jane Kendall, now aged 63, is aware that from childhood she has been short-sighted. She had, however, excellent sight for near objects, and worked hard as a dressmaker all her life. In 1851, she first took to glasses (—10) for the distance; and from that time her sight, which was then decidedly failing, has gradually become worse. It is, however, only for the last month that she has been unable to work; and even now she can make out No. 6 with difficulty at 7″. Her myopia is not more than an eighth. Thus we have a case of mild degree of myopia, aggravated by close work, and resulting in amaurosis. With the ophthalmoscope, we find, beautifully marked, the precise changes which might have been expected. In each eye, there are large irregular patches (crescents) around the optic disc, where, owing to thinning of the choroid, the sclerotic is seen through. In each, at the yellow spot, the choroid shows evidence of chronic disorganisation. Large coal-black masses of pigment are there accumulated; and there are patches and radiating irregular lines of denuded sclerotic. Let us contrast the choroidal changes in this case with those of the syphilitic patient. The main feature of difference is as to the localisation of the disease. In our myopic patient, the patches are all limited to the region of the optic disc and yellow spot; whilst, in the syphilitic one, they are scattered over the whole fundus. The blackness of the masses of pigment, their abrupt conspicuousness, is the same in each. No visible atrophy of retina or optic nerve has ensued in the myopic case; and her vision, considering the extent of choroidal disorganisation, is wonderfully good.

Films of Opacity in the Vitreous Humour of one Eye with Specks in the Lens; Chlorosis and Nervousness; Suspected Masturbation.—Emma L., is a fair complexioned pretty girl of 18. She is, however, extremely pale and most distressingly nervous. Her elder sister tells me that she is obliged to keep constantly at her side on account of her diffidence. You would take her for a most marked example of chlorosis. She comes to us complaining of defect of sight in the right eye, she can see to read "brilliant" with it, but the type looks spotted, she is also much annoyed by muscæ. On using the ophthalmoscope, the first observation is that the retina looks muddy and indistinct; the second, that this haziness is due not to any altered conditions of the tissue itself, but to the fact that it is seen through a veil of partially opaque vitreous. Using the mirror alone without the object-glass, and making her move the eye about, you see numerous floating films in the vitreous body. There are also a few very small specks of opacity in the lens. She has only noticed her present symptoms for a few months, and the other eye is perfect. Now, to what cause are we to attribute the very peculiar symptoms met with in this case? I know of but two common causes of opacities in the vitreous which are likely to occur in a young person, and these are syphilis and masturbation. Syphilis is a very common cause indeed. I have made such inquiries as I could in this case, but without result. There does not seem to be any reason to believe that the girl has had syphilis. Without venturing any decided opinion, I cannot but suspect strongly that the other cause which I have mentioned is the real one, and that it has, perhaps, been present from an early period of life. I am told that the girl has always been pale and nervous, and that she is the only one of her family who is so. She denies that she is the subject of leucorrhœa.

Case of Optic Neuritis in its Acute Form: Recovery.—The last case to which I invite your attention is one of very great interest and importance. Henry Fry, a boy of 14, accustomed to work as a bricklayer, was brought to me on May 28th totally blind. His pupils were dilated and almost motionless; his aspect amaurotic. With the ophthalmoscope, both optic discs were found to be covered with lymph, by which their edges were wholly concealed. There were no apoplexies. His illness had begun, a week before, with pain in the head and sickness. Within five days, he was in total darkness, and could not even find a gas-light in a room. His headache at this time was severe, and he had almost constant retching. He had enjoyed good health previously. I ordered him a sixteenth of a grain of bichloride of mercury three times a day; and this dose he has continued to take for four months, with the result which I will report. On the third day, he regained perception of light; and on the fourth, he could see the shadow of his hand. On the eighth day, he had lost all headache, and seemed quite well; but he could scarcely count fingers. After that, with one slight relapse, he steadily improved in sight, and his health remained excellent. On July 2nd, he could spell No. 20. On July 16th, all traces of lymph had disappeared from the discs, and the latter were abruptly defined and pale. He could now read No. 18. At the present date (five months from the outset), he considers that his sight and health are both perfect; he can read "BRILLIANT", and has for a long time been regularly at work again as a bricklayer. His sight is not, however, perfect, for he does not read brilliant quickly, and in the distance he sees only $\frac{20}{40}$. You have all examined his optic discs. They are of a grey white colour in all parts, and entirely destitute of minute vessels; but they are quite free from lymph, and their margins are abruptly defined. The central artery and vein are nearly of normal size. It would be impossible to tell, from their present condition, that they had ever been inflamed; whilst, on the other hand, the pallor of the discs is such that if, instead of reading "brilliant", the boy were unable to count fingers, it would excite no surprise. I bring forward this case, because it is an excellent example of acute optic neuritis. We have had the advantage of observing it from the first stage. The symptoms which ushered it in were the usual ones, headache and sickness. The result has been unusually good, but I have watched several others in which really wonderful degrees of improvement resulted. It would be hasty to assume that the mercury did the good, but still I cannot resist the belief that it helped. Before the days of the ophthalmoscope it was taught that a course of mercury would cure some forms of amaurosis, and probably some of the cases so cured were examples of neuritis. I will ask you to observe, also, in connexion with this case, that it is impossible to predicate the amount of a patient's vision by the degree of pallor of his discs.

QUEEN'S HOSPITAL, BIRMINGHAM.

TWO CASES OF BRITISH CHOLERA: USE OF ACETATE OF LEAD AND MORPHIA IN SOLUTION: PROMPT RECOVERY: REMARKS.

Under the care of Dr. Fleming.

[Reported by J. Sawyer, M.B., Resident Physician.]

Case i.—G. L., aged 24, a hawker, was admitted July 21st, 1868. He had been ill a fortnight, suffering from severe diarrhœa. He could assign no cause for his illness except the heat and having lived very irregularly. For a day previous to coming into the hospital, he had been vomiting everything. On admission, he was in a state of extreme collapse. He was cold; the lips were blue; and his pulse at the wrist was too feeble to be counted. He was purged about every hour, and the motions were watery; there was severe griping pain in the belly; and the stomach rejected everything. He was ordered milk and beef-tea alternately every four hours; warm negus in moderation; and a draught composed of two grains of acetate of lead, five minims of solution of acetate of morphia, and fifty minims of dilute acetic acid, in an ounce of distilled water, every two hours, one hour before, and one hour after food. An improvement in his condition was almost immediate. The vomiting stopped at once, and the purging became less frequent. On July 22nd, he was warm and comfortable; there was no vomiting, and scarcely any pain in the belly. The motions were more solid and fæculent. The medicine was given every four hours, one hour before food. On the following day, the purging had entirely ceased, and the medicine was given every eight hours. He was discharged on July 28th, well.

Case ii.—F. G., aged 13, school-girl, was admitted August 4th, 1868. A week before admission, it was stated, she drank a large quantity of dark-coloured and impure tap-water. She had had griping pains of the belly, purging, and sickness, ever since. On admission, there was no marked collapse. She vomited everything, and the bowels were open every hour. The motions were very fluid. The mixture of acetate of lead and morphia was given every four hours, one hour before meals. After the first dose, the vomiting ceased, and did not return; the purging became less frequent, gradually subsided; and at the end of a week she left the hospital perfectly well.

Remarks.—The value of acetate of lead and opium in diarrhœa is well known; and the object of recording these cases is simply to draw attention to the *mode of administration*. In diarrhœa, the astringent action of both the lead and morphia is remote, and follows their absorption and conveyance with the blood to the affected part. Hence the marked advantage of giving them in the form of thorough solution in distilled water, like that used in these cases, which promotes their prompt passage into the blood. This is further secured by giving the medicine on an empty stomach, before meals, and so avoiding, as far as possible, precipitation of the lead by contact with the gastric fluids. In the ordinary lead and opium pill, more or less of the lead is probably converted into meconate; or, the pill dissolving slowly in the stomach, and in contact with the gastric secretions, the lead runs much risk of conversion into the insoluble chloride. Dr. Fleming has adopted this mode of administration for many years, and speaks strongly of its efficiency. In the diarrhœa of children, the same mixture, in appropriate doses, gives most valuable results. For a child of one year, half a grain of the acetate of lead, half a minim of the solution of morphia, and five minims of diluted acetic acid, in one drachm of distilled water, may be given every four, six, or eight hours.

DERBY INFIRMARY.

A CASE OF IMMENSE HYDATID CYST OF THE LIVER.

Under the care of S. W. Fearn, Esq., F.R.C.S., Senior Surgeon.

[Reported by F. W. Wright, M.R.C.S., etc.]

The following history, which appears of some interest, as showing the ready curability of a dangerous malady, is extracted from the hospital case-book.

James Carter, thirty years of age, was admitted into the wards on December 3rd, 1866, for a very large tumour connected with the liver, occupying the whole of the right hypochondriac, right lumbar, epigastric, and umbilical regions, and extending into the left hypochondrium. The dulness extended two inches higher than the right nipple; and fluctuation was indistinctly felt below the last rib. Air entered the right lung only at the apex. The swelling was first noticed by the patient four years ago. Five years since—one year anteriorly to the appearance of the tumour—he was attended by a doctor for an attack of pleurisy. On December 8th, Mr. Fearn passed a small trocar into the tumour, where it presented below the last rib, and evacuated eighty-five ounces of fluid, of the character and appearance of pure water. Its specific gravity was 1012; it contained no albumen, no sugar; and nothing was detected in it under the microscope. On the 24th of the same month, the patient was discharged, greatly relieved. On March 18th, 1867, he was, however, admitted into the hospital again, for a tumour of the liver, which had a diameter of twelve inches in the right mammary line, commencing two inches above the nipple, and extending below the umbilicus.

On March 30th, Mr. Fearn again evacuated with a trocar forty ounces of turbid whey-like fluid, and then injected the cyst with diluted tincture of iodine, which caused some pain and smarting. After this, the case appears to have progressed so satisfactorily, that no further note occurs in the book concerning it.

On the 21st of July last, the patient was carefully examined, and the following facts elicited. Though fifteen months have elapsed since he was last tapped, the hepatic dulness still remains excessive, extending almost as high as the right nipple, and somewhat lower than is natural to a healthy liver. The patient has, however, perfectly recovered; and the right lung, which was so much compressed, now accomplishes its work healthily and easily. He has lost all the dry cough which was so distressing an accompaniment of the dyspnœa; and the pain over the region of the liver, of which he formerly complained greatly, has entirely disappeared; and he can now take much exercise without being embarrassed either with pain or bad breathing. Altogether, one hundred and twenty-five ounces of fluid were removed from this tumour, of which eighty-five were as pure and limpid as water, and contained no echinococci. This last fact naturally caused the disease to be looked upon as an instance of sterile echinococcus; but, from the evidence supplied by the results of the second tapping, it is probable that this was not the case, and that the forty ounces of "whey-like" fluid then evacuated consisted mainly of the *débris* of once fruitful, but now disintegrated, cysts. This of course, cannot be verified, inasmuch as it appears that the fluid was not subjected to microscopic analysis; but the surmise seems not improbable, for the following reasons. Many cases of hydatid disease contain very few daughter-vesicles of the *second* generation; these, though they may, and often do, attain a large size, it is quite possible may escape being punctured by the trocar, especially when it happens that the primary mother cyst has become very capacious, as in the present case. These daughter-vesicles of the second generation, on the other hand, may contain great multitudes of others of the *third*, and these, again, others of the *fourth* generation, all of which very soon die when the fluid is drawn off from the mother sac, disintegrating and forming the whey-like fluid which is so common a characteristic of the contents of hydatid cysts.

The continuance of the hepatic dulness in the present case is doubtless due to the large thickened sac still remaining. It is not unfrequently noticed that, when a large quantity of fluid has been removed from a hydatid cyst, in the course of a few days the tumour will increase in size, and appear almost as large as before. All this, it seems not unlikely, is owing to the disintegration of large daughter-vesicles which would not escape by the cannula, giving rise to inflammation and exudation about the mother cyst. The fact that forty ounces of turbid fluid were removed at the second tapping seems to be almost positive proof that the present case was an instance of the kind, and that what are sometimes taken to be cases of "sterile echinococcus" are conceivably not sterile, but fertile. The case recorded by Frerichs at page 267, vol. ii, of his great work, is similar in many respects to the foregoing, and possibly admits of a similar interpretation.

DUBLIN HOSPITAL REPORTS.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

DR. LYONS'S CLINIQUE.

Use of Capsicum in Delirium Tremens.—A further experience would appear to have confirmed the opinions expressed some two years ago by Dr. Lyons in regard to the value of capsicum in the treatment of delirium tremens, more particularly in those instances in which opium has been already tried, and failed to produce sleep. The following is a good example of the effects of the drug.

A. B., aged 30, an habitual drinker, and occasionally indulging in the use of spirits, beer, and wine, to an extraordinary excess, became the victim of delirium tremens after an unusually prolonged bout of drinking. He was extremely violent; had no sleep for five or six nights in succession. Tremor and constant sweating were marked features of the case; and the pulse ranged from 120 to 130. He was treated with opium in the form of the tincture, and in a single night took five draughts containing twenty-five minims each—in all, 125 minims in less than twenty-four hours. This quantity, so far from producing any tendency to sleep, quieting the delirium, or restoring the power of the mind and faculties, seemed to have still further aggravated the symptoms. The patient became more and more violent; he raved incessantly; sweat poured from his face, trunk, and limbs; tremor was extreme. He was with difficulty retained in bed by the united force of four men in constant attendance upon him. His delusions ran principally on festive scenes, gay company, and unlimited libations. He fancied himself seated at the head of a table well stocked with all the appliances for a night's carouse, and shouted to this and that of his imaginary friends to pledge him in full bumpers. All the while he struggled incessantly to free himself from the grasp of his attendants, and abused them in loudest tones and no measured terms for their unwelcome intrusion on his pleasures. It was feared to push opium further; and, at this juncture, Dr. Lyons saw the case in consultation. He prescribed a change of remedies; and a dose of capsicum (thirty grains) made into a bolus with honey of roses, was ordered. The patient swallowed the dose with little difficulty; and Dr. Lyons informs us that in but very few instances is there much, if any, complaint made of the usual burning sensation in the mouth and throat felt by all persons in health after the use of even a very small quantity of capsicum. This diminution or loss of sensibility is probably attributable to the general morbid condition of the nervous system, and impairment of the gustatory function. In the case in question, the patient soon fell asleep, and slept for ten hours, when he woke perfectly rational, calm, and convalescent.

In a very considerable number of cases, Dr. Lyons has found that a single dose of capsicum—twenty to thirty grains, according to the urgency of the symptoms—suffices to produce rest, sleep, and consciousness. In exceptional instances, however, a second and even a third dose has been required, before full tranquillity was produced. Thus, in a case recently under treatment in the Hardwicke Hospital, the patient, after a period of tranquillity, had, as it were, a relapse into tremor and delirium, on two distinct occasions, and required a second and third dose of the drug, when eventually full relief to all the symptoms was produced, and the patient was pronounced well.

As a practical point, it would seem worthy of special comment, that Dr. Lyons has found that the drug is well borne, and tranquillises the stomach in cases in which irritability and vomiting are present as a very troublesome complication. In several such instances, the administration of the drug has been followed by immediate relief to the gastric symptoms.

Dr. Lyons sums up his experience of the drug as follows. 1. Capsicum is a valuable and reliable drug when opium fails, or is, for any cause, contraindicated. 2. It is a safe drug for general employment in delirium tremens, and, as such, may be confidently recommended to the country practitioner for general employment. 3. It is not open to the objection which attaches to the continued use of opium, which, when it fails to tranquillise and produce sleep, adds to the state of excitement; and, if pursued beyond a certain limit, kills, as it has undoubtedly done in numerous instances, by suddenly induced opium-coma. 4. In some few instances, Dr. Lyons informs us, he has employed capsicum in the delirium of fever, when opium had failed to induce sleep, and with marked success in certain cases.

As a member of the family of solanaceous plants, capsicum might, *à priori*, have been expected to contain a narcotic principle. As yet, the alkaloid in which it resides has not been isolated; but, in some researches on the subject, conducted at the request of Dr. Lyons, M. Alphonse Gages, a distinguished member of the chemical staff of the College of Sciences for Ireland, has found sufficient indications of its presence to warrant him in predicting its ultimate detection and isolation. It will, Dr. Lyons expects, form a valuable boon to practical medicine, when isolated and eliminated from the acrid oils of the capsicum fruit.

ST. MARK'S OPHTHALMIC HOSPITAL, DUBLIN.

SUBCONJUNCTIVAL MELANOSIS.

(Under the care of Sir WILLIAM WILDE.)

B. McG., aged 51, a female, is at present in St. Mark's Ophthalmic Hospital, presenting a very remarkable condition of the lower eyelid. This latter is projected forwards to the extent of an inch beyond its natural position, and presents a saucer-like appearance, the convex side of saucer looking downwards. This projection is caused by a lobulated tumour situated between the eyeball and the integuments of the lower lid, and beneath the conjunctiva. The tumour is in part extremely firm and hard, in part rather soft. Viewed from above, it is seen to be composed of several masses, some presenting the appearance of scirrhus, others of melanotic cancer. One rather large portion is almost black, and appears completely isolated in or beneath the conjunctiva, covering the inferior surface of the globe; the most projecting point of this portion of the tumour has become ulcerated, and bleeds occasionally. There is scarcely any discharge from the free lying surface of the tumour, beyond that usual to the conjunctiva. The motions of the eyeball are as yet not interfered with, and the vision has not suffered. There is no pain or uneasiness, beyond that naturally caused by such a projection from the face. The growth, which is of ten months' duration, has been removed by Sir William Wilde.

The following case exemplifies the symmetry of disease.

M. S., aged 29, served ten years in the army, and was discharged this autumn. While on his way home, in a remote district of Ireland, he got a severe wetting, and continued to wear his wet clothes for some days. After a few days, both his eyes became sore and painful, and he lost his vision in both eyes. Three weeks after the attack commenced, he was admitted to St. Mark's in the following condition. There were intolerance of light, apparent inability to open the eyes, and difficulty of looking downwards or forwards when the lids were held open. There was some difficulty, therefore, in seeing the state of the cornea and iris. Both corneæ were found to have been perforated midway between the centre and the nasal periphery; and there was now a prolapse of the iris on each side in this position, that on the right side being more extensive than that on the left side. More or less of the cornea on each side around the hernia was nebulous. The conjunctiva was quite exempt from disease, and the sclerotic and ciliary vessels injected.

MATER MISERICORDIÆ HOSPITAL, DUBLIN.

PHTHISIS: LYMPHATIC INFLAMMATION OF THE LEFT LOWER EXTREMITY.

(Under the care of Dr. HAYDEN.)

E. S., aged 43, a shoemaker by trade, admitted into hospital on Oct. 23rd last; he has served six years as a soldier in India, whence he returned to Ireland six years ago. Whilst in India, he had an attack of inflammation and swelling in the right leg, similar to that from which he now suffers in the left; he has been generally delicate, but not invalided till four months ago, when his bowels became obstinately confined, with loss of appetite, and vomiting every evening; the latter symptom continuing till three weeks ago. For the last three months he has suffered from severe pain, with a burning sensation, in the region of the stomach; he has never been jaundiced.

State on Admittance.—He was greatly emaciated and remarkably pallid, the sclerotics being of a pearly white; the tongue was moist, clean, and denuded of epithelium; pulse 120, and very weak, but regular; the bowels were constipated; the left foot and leg to the upper end of the calf were much swollen, of a pale waxy colour, pitting, but not tender on pressure, except on the inside of the calf, and contrasting strikingly with the left, which was greatly wasted; no œdema elsewhere; over the anterior and internal aspect of the left thigh the superficial lymphatic vessels were hard, tender, and in many places nodulated; they might be readily traced by the finger as tense cords beneath the skin, up to the inguinal glands, which were not enlarged; the girth of the calf of the leg was greatly exaggerated, whilst immediately above and throughout the thigh the limb was attenuated, and presented a very singular appearance. He stated that a fortnight prior to admission the calf of the leg became for the first time red and tender, and the foot cold and benumbed. He had slight cough with muco-purulent expectoration; nearly total loss of appetite, but very little suffering. There was excavation of the apices of both lungs. The treatment consisted of mild aperients, iron, and innunction of the leg with iodide of potassium.

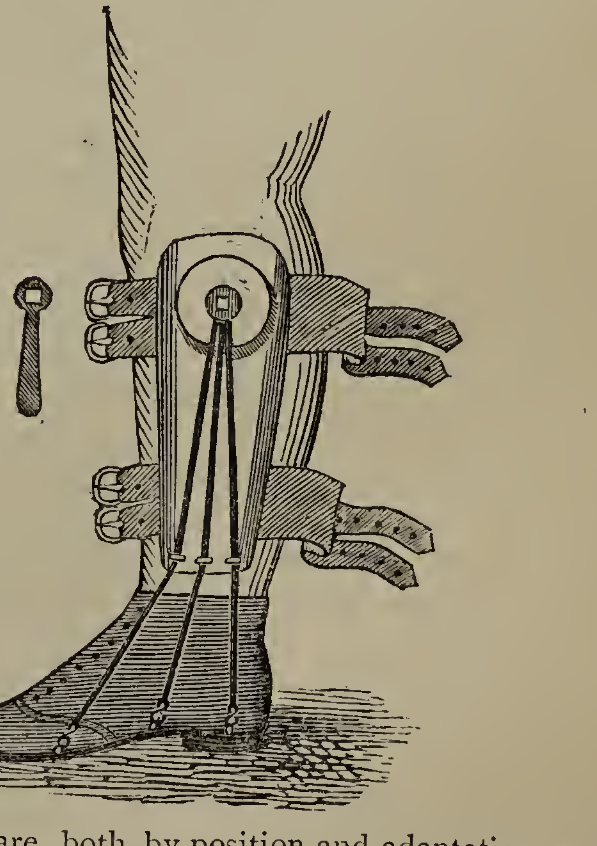
This case is instructive, and in some respects peculiar; it affords an example of chronic phthisis, complicated, in the first instance, with subacute gastritis, probably of tuberculous character, and subsequently with angeioleucitis confined to the left lower extremity. The man is still under treatment.

NEW INVENTIONS, &c.,
IN
MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SPLINT AND BOOT FOR THE CURE OF TALIPES VARUS, WITHOUT DIVISION OF TENDONS.

By G. GREWCOCK, Esq., Nottingham.

THIS splint is very ingeniously devised, so as to apply elastic pressure in the directions best calculated to counteract the vicious positions of the foot in the double contortion of talipes varus. The elastic cords seen in the engraving are, both by position and adaptation, well calculated to correct the deformity. We have had no opportunity of seeing it tried in practice; but the model forwarded to us recommends itself to the surgeon, and we shall be glad to hear that it has been adopted into practice. The maker's name is Mr. Odery, Clumber Street, Nottingham.



APOTHECARIES' HALL.—At the recent examination for the prizes in Materia Medica and Pharmaceutical Chemistry, given annually to medical students by the Apothecaries' Society, the successful candidates were:—1. Herbert Alder Smith, of St. Bartholomew's Hospital, a Gold Medal; 2. Richard Benjamin Anderson, of St. Mary's Hospital, a Silver Medal and a Book.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 7TH, 1868.

FINANCIAL NOTICE.

Members who have not yet paid their Annual Subscriptions for the current year 1868, are reminded that the whole Year's Subscription of One Guinea became due in January last, and the Special Half-Year's Subscription of Half-a-Guinea in July last. During this interval, the Journal has been supplied weekly to Members, and the postage paid. It is respectfully requested that the Subscriptions due be transmitted without delay to the Local Secretaries, or to T. Watkin Williams, Esq., General Secretary, 13, Newhall Street, Birmingham.

LUNACY AND CRIME.

The considerations laid before the Lord Advocate by the deputation of the Medico-Psychological Association, to which we elsewhere refer, are of great importance to the state, and of unquestionable interest to our profession at large. Mr. Gordon is pretty sure of election for the Universities of Glasgow and Aberdeen; and it is satisfactory to see that he is alive to the importance of the medical issues raised, and that, in most important respects, he is in sympathy with the views entertained by leading psychologists in our profession. On this occasion, the subject was brought before the Lord Advocate by able and accomplished men; and it is worth while to analyse and recapitulate their arguments.

Professor Laycock pointed out that, while the sciences had been rapidly developing, the administration of justice in relation to mentally defective criminals was founded upon doctrines current in what, comparatively speaking, might be called the dark ages. The doctrines upon which our forms of procedure were founded had become practically obsolete, and in this way the practice had become out of relation to the administration of the law. It is well known that there is an intimate connection between imbecility and vice in the way of cause and effect; and there can be no doubt that many committed to prison for crime were more or less imbecile, so far as not to be under self-control. The state of the law as regards persons of incurably vicious propensities was very defective. It is extremely difficult, as the law now stands, for medical men to give evidence before a court in such a way as to satisfy their judgment as professional men, and their consciences as citizens. No doubt there are great differences of opinion, as there must be among so large a body of gentlemen, upon this subject; but it was not the object of the deputation to press upon Government the necessity of inquiring into what constituted insanity. They were desirous of impressing upon the Lord Advocate, and the Government through him, the necessity for a full inquiry being made into the relations between mental science and the administration of the law. Mr. Bruce Thomson, Surgeon to the General Prison of Scotland, illustrated the intimate connection between insanity and crime, from his own personal observation. He had no hesitation in saying that one prisoner out of every nine was more or less insane, and that one out of every one hundred and forty became irresponsibly so. He referred more particularly to one class of prisoners of this kind—namely, the epileptic. He believed that many crimes were committed by epileptic criminals when they were utterly unconscious and in an irresponsible state of mind; and he mentioned cases which had come under his own observation, and which fully bore out his remarks. He thought prisoners of that class should be treated very differently than they are under the present system of prison discipline; and such a subject should be carefully considered by any commission which may be appointed. Referring to the close connection between over-indulgence in intoxicating drinks and crime, he expressed a strong opinion that, for their own sakes and the safety of society, it was absolutely necessary that men and women of this class should be taken care of. Professor Maclagan remarked that a good deal had been said about the unreliable nature of medical evidence; but, if the facts were examined, it would be seen that the difficulty did not arise so much from the purely scientific or practical portions of the medical man's evidence, but more commonly referred to causes involving mental disorder. He expressed the opinion, that the misery, the crime, and shame, which were caused by over-indulgence in intoxicating liquors, could not be exaggerated. The treatment and reclamation of dipsomaniacs were, therefore, of the greatest consequence, and would fittingly come under the consideration of such a commission. Mr. Commissioner Browne, referring to the connection between insanity and crime, said that Mr. Thomson's predecessor in office, Dr. Malcolm, a plain practical man, not given much to subtle disquisition, left behind him a memorandum to the effect, that of the hundreds and thousands of persons who had passed under his observation, upwards of two-thirds of them were either insane or in some degree affected. He (Mr. Browne) had also observed that crime was hereditary; the members of certain families being distinguished for insanity and crime for three or four generations, and the laws of hereditary tendency, as bearing upon the responsibility of the individual, might be profitably considered by a Parliamentary commission. The Lord Advocate, in reply, admitted the great interest, and pointed out some of the difficulties surrounding this subject. He had long been impressed with the fact that great weakness of intellect existed among those placed at the bar of our criminal courts; and it was extremely difficult to determine the exact extent to which their imbecility should relieve them from punishment. The views which he had formed as to the weakness of the intellects of criminals during the time he practised at the bar, received striking confirmation from a visit he had recently paid to the General Prison for Scotland, under the management of Mr. Thomson. He understood that the deputation were desirous that a commission should be appointed to consider certain points connected with mental disease; and also with reference to the position of the medical profession as regards the evidence which they are called upon to give in courts of justice. In respect to mental diseases, the members of the deputation had not pointed out any practical measure for the remedying of existing evils; and he presumed they considered that a matter for the consideration of the commissioners. He could not make any pledge, as it was not a subject peculiar to Scotland, but common to England and Ireland. It was a very important question; and it was right that the attention of the public should be called to it, so as to bring out discussion upon the points raised. All he could say, in the meantime, was, that he would take an early opportunity of bringing before the Government the views of the influential deputation he had had the honour of receiving. The law with reference to some of those matters is not the same in Scotland as in England; and there can be no doubt that an assimilation of the laws, as much as possible, is desirable. More particularly with reference to the rights of persons, he could see no reason why the law should be different in the two countries. He did not say that we should adopt the English law. We should adopt the best of both systems, and, therefore, an inquiry by commission may in this respect be of great advantage. He concluded by again promising that he would take an early opportunity of bringing the matter under the notice of the Government.

THE WINTER SESSION IN DUBLIN.

THE medical world in Dublin is astir at the present moment, for not only do we find the usual excitement of numerous candidates for preliminary examination and medical matriculation, with the attendant solemnities of introductory lectures and inaugural addresses; but, during the last month, the time-honoured medical ethics of Irish Metropolitan medicine have received some vigorous assaults, which threaten to alter public opinion regarding our profession on more matters than one.

To begin with the "Introductories." Notices of several of these have been forwarded to us, and appear or shall appear in our columns; but we beg to direct special attention to the report of one which we publish to day respecting the Carmichael School of Medicine.

From the printed report, which was distributed on the occasion described in another column, we find that the Carmichael Prize Fund now enables the proprietors to award annual premiums to the value of £60; and that these have been given by examination conducted on a principle which has always distinguished this school, namely, "to seek for a knowledge of each subject commensurate with the importance which modern research may have bestowed upon it, as well as in accordance with the requirements of the various licensing bodies of the Kingdom." The Report proceeds to say that the answering at the prize examinations was extremely good; and describes the excellent plan of practical examinations in medicine and surgery at the bedside, with Operative Surgery and Practical Anatomy examinations in the dissecting room; thereby making the old adage come true, that "actions speak louder than words." But a special feature in the Inaugural proceedings above adverted to was the first award of "the Mayne Scholarship," the examination for which was conducted as just described, and with this result, that the distinction conferred was one well worth gaining; for—to quote the words of the proprietors—"the Mayne Scholarship, awarded in this School, is at once a memorial of one whose loss we must ever deplore, and an incentive to industry amongst our students to obtain a high professional distinction."

All this, however, fades into comparative insignificance alongside the unusual occurrence of no less than two men of mark, one, an eminent member of our profession, and the other a distinguished gentleman identified with it, coming forward as candidates for seats in the new Parliament, Sir Dominic Corrigan for the City, and Anthony Traill, Esq., LL.D., F.T.C.D., for the University.

A good deal has been written in our columns, as elsewhere, about Sir Dominic Corrigan's candidature; and, without at all wishing to interfere in politics, we, as Medical Journalists, have advocated his return solely from a professional point of view; believing, as we do, that, political questions apart, his advent to Parliament would, almost to a certainty, tend to raise the status and importance of the medical profession in the eyes of the legislature; and inaugurate the passing of some greatly needed measures which the interests of the public, as well as those of our own profession, loudly demanded, but have long looked for in vain.

It is fair to say, however, that the Church question is one of such absorbing interest to all parties, and almost to all persons, at the present crisis; that the medical men who will not look at Sir Dominic's candidature from a professional standpoint are likely to be neither few nor insignificant. Their feelings, as our readers have seen, Sir Dominic is ready to fully appreciate, and estimate at their proper value; for he would be the last man to imagine that any one who thinks the Church question one of vital importance as regards his candidature, could vote as if he thought otherwise.

That there are some, however, who are perfectly sincere in their support of Sir Dominic as a medical man, may be judged from the fact which we have on the best authority—that one of his prime medical supporters, and a co-religionist, and a co-politician of the eminent Baronet—has offered to contribute handsomely to the election expenses of Dr. Anthony Traill, because of his medical connection; Dr. Traill being, in religion and in politics, warmly opposed to Sir Dominic. The University of Dublin has long groaned under the infliction of lawyer representatives, who were said to have done great things for it, but who really did great things for themselves only. One Law officer after another, said "*veni, vidi, vici*"; and, having gained the object of his ambition, a seat on the Bench, puts his patriotism and his burning zeal for his constituents in his pocket, and handed over his seat in Parliament, as well as his official Government position, to his equally patriotic and zealous successor.

Among the Fellows of Trinity College, Dublin, there are few who are exempted from taking Holy Orders. Dr. Anthony Traill is one of these, and having gone through the full curriculum of the School of Physic with a view to medical qualification, and, it is said, to practice, he comes before his fellow graduates as a good speaker; a man whose views notoriously harmonise with those of the great majority of the electors on the Church question of the time; and who probably will carry with him, in addition, the large and rapidly increasing medical element of the electors.

At first Sir Dominic's assurance was astounding to the lawyers; but even more so is that of Dr. Traill. "What business have medical men with Parliament?" was a question asked triumphantly, as though it admitted of no answer but one; yet Sir Dominic, whether successful or not, has vindicated a great right for our profession, and Dr. Traill has joined in this vindication by asserting that medical men have as good a right as any other men to enter Parliament and engage in public affairs, and that there is good reason why they should do so. It seems to have been the accepted doctrine in Dublin hitherto, that medical men would certainly lose their practice by dabbling in extra-professional matters. It is otherwise now, for the exceptions are sufficiently numerous and eminent to form a precedent which others will not be slow to follow. Many years ago, Sir William, then Mr., Wilde, was editor of the *Dublin University Magazine*, as well as of the *Dublin Medical Journal*; he was a Census Commissioner and wrote blue books; while he could also write about the Beauties of the Boyne, the Blackwater, and about the Closing Scenes of Dean Swift's life. He could write a Catalogue of Antiquities for the Royal Irish Academy; and, at the same time, write learned and practical works on Ophthalmic and Aural Surgery. Yet all this never hindered, but perhaps promoted, his professional success. Sir Dominic Corrigan wrote a book about Athens and Greece; made a political speech two years ago; is now a vigorous Parliamentary candidate; and all through, has gone ahead professionally. That eminent physician, Dr. Stokes, is, it is said, preparing an erudite life of the great Irish scholar Petrie, for the Royal Irish Academy, and the Antiquarian and Historical Researches of Sir James Young Simpson are too well known to need even a passing remark. The whole tone of medical thought in Dublin will be affected by this, for it will be seen that energy in the affairs of the State, and literary cultivation, are not only not incompatible in many cases with medical success, but, that frequently, the men who make a name in one calling are equally qualified, with others, to act their parts on that stage on which all we men are players.

PREVENTION OF VENEREAL DISEASE.

SOME interesting information on the results obtained by the operation of the Contagious Diseases Act has recently been given by Mr. James Lane, in a paper read at the Western Medical Society, on that important sanitary question, the Prevention of Contagious Venereal Disease.

It appears that the Act is now in force in England at nine military and naval stations, the garrisons of which amount, in the aggregate, to 51,302 soldiers, sailors, and marines. At these stations 2383 men were admitted into hospital for venereal disease during the quarter ending June 30th; but it is worthy of notice that of these only 1345 contracted their disease within the inspected districts; in other words, 44 per cent. of the cases were known to be caused by women not under the operation of the Act. The average number of men always under treatment in this force of 51,300, is 587, or 1.1 per cent. The general beneficial result obtained may be thus expressed. In 1864, before any restrictive measures were introduced, the annual ratio of admissions for venereal disease throughout the whole army was 29 per cent. This has been reduced at the inspected stations, taken collectively, to 18.5 per cent., calculating from the returns for the June quarter of this year. But it must be remembered that nearly half of this is owing to disease contracted out of the districts. The annual ratio of men contracting disease within the districts where they were stationed, was not more than 10.4 per cent.

This is a very encouraging result, if we take into consideration the imperfect way in which the Act has hitherto been enforced at most of the stations for want of sufficient hospital accommodation for the women, and the consequent impossibility of carrying out periodical inspection—these being essential conditions of success—with various other disturbing influences, all of which would be removed if the Act could be made more general in its application. It is very satisfactory to find that the success obtained has been everywhere exactly proportional to the completeness with which its provisions have been complied with.

With respect to the women, it appears that during the same quarter the number brought under the operation of the Act at all the stations, was 2542. Of these 1094, or two out of every five, were found diseased, and sent to hospital for treatment. The number of beds provided for them is 484. The large number becoming diseased shows the urgent necessity for constant supervision, to insure their seclusion at the earliest possible period.

The execution of the Act, and the management of the women, has been entrusted to the metropolitan police, under the superintendence of Mr. Mallalieu, the required number of constables, carefully selected, having been dispatched to each station; and it is mainly owing to the judicious and conciliatory manner in which this duty has been performed that so little difficulty has been met with in inducing the women to submit to examination.

The evidence from all quarters is remarkable, that, both as regards the women and the men, not only has the quantity of disease been diminished, but its quality has been modified for the better in the most marked manner. Not only has the proportion of syphilitic disease to milder affections been much diminished, but the syphilis which has occurred has been of a mitigated character, and secondary affections have been rare. The shortcomings of the present measure are due almost entirely to the limited area of its operation, and all the evidence points to the expediency of extending it as widely as possible without loss of time, and for the benefit of the civil as well as the military population. No amount of hospital accommodation maintained on the voluntary system, will ever accomplish the desired result, for the women will never apply for admission as in-patients, until they find it impossible to pursue their vocation any longer; while their treatment as out-patients is of little benefit to them, and is positively injurious to the public health, by enabling them to continue it for a longer time, without suffering, to themselves. The only way to do real good to them, and to prevent their doing harm to the community, is to discover their disease, and treat it as soon as it appears. This can only be done by their compulsory periodical examination and compulsory seclusion in hospital while diseased.

THE COLLEGE OF PHYSICIANS, LONDON.

We may venture to congratulate the College of Physicians upon having adopted a measure of reform in the mode of nomination for the Fellowship, which will tend to remove the probable recurrence of injustice. It has been resolved, that any two Members, not having been solicited, may forward to the Council a nomination of any other Member for the Fellowship, stating the ground of such nomination. This is precisely the measure which we have urged; and we are the more gratified that it has been adopted, because it will allow of the claims of provincial physicians being fairly put forward. It is our brethren in the provinces who, in our opinion, have hitherto had most ground of complaint. Their claims were least likely to be brought forward under the past system. The further proposition, to allow any one to repeat to the Comitia a nomination which had not been accepted by the Council, was open to many objections, as we pointed out when Dr. Williams first gave notice of it. It was not even put to the meeting. We trust that our provincial brethren will bear in mind the full force and value of the new regulation; and we do not fear but that their claims, fairly put forward, will meet with just and cordial recognition.

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An Infirmary for Sick Children is to be established at Inverness.

The new Infirmary at Preston, Lancashire, will be ready about April next, when the present Dispensary will be merged in it.

Dr. Griffith, of St. Anne's, Blarney, County Cork, has been fined 10*s.* and costs for refusing to allow his child to be vaccinated.

Lord Napier of Magdala made an unofficial inspection of the Royal Hospital, Netley, last week.

New ophthalmic wards and an additional venereal ward were opened at the London Hospital on the 4th instant.

The magistrates at Newcastle have fined forty persons for neglecting to whitewash, or otherwise cleanse, passages and staircases on premises belonging to them or under their control.

We regret much to learn that Professor Griesinger of Berlin died on October 28th. He had for some months suffered from iliac abscess. His work on *Mental Diseases* has been translated by the New Sydenham Society, and is also issued in most other European languages.

The Jeaffreson Scholarship, of the value of £20, tenable for two years, has just been competed for by those students whose standing at St. Bartholomew's Hospital is less than three months. It has been awarded to Mr. Abiathar Wall, late pupil at the Royal Medical College, Epsom.

Professor Partridge will commence his annual course of lectures on Anatomy at the Royal Academy on Monday next, the 9th instant, at 8 P.M.; and will continue the same every succeeding Monday up to the 14th proximo inclusive.

An order was made at the last Annual General Session at Maidstone, increasing the weekly sum to be charged for the lodging and maintenance of each pauper confined in the Kent County Lunatic Asylum (other than those sent to such Asylum from, or settled in, some parish or place within the county) from 14*s.* to 14*s.* 10*d.* per week, for the current quarter, pursuant to the 16th and 17th Vic., cap. 97.

The opening meeting of the Middlesex Hospital Medical Society was held on October 29th; Dr. John Murray, President, in the chair. After a few opening remarks by the President, Mr. Henry Arnott read an interesting and searching paper on the Use of Instruments in the Diagnosis of Disease, in which, although he admitted the great value of many instruments, he deprecated the excessive and growing tendency to their multiplication, and the dependence of many medical men on their use, instead of depending more, as physicians of old, upon careful clinical study. There was a large attendance, and a warm discussion followed.

TAUNTON AND SOMERSET HOSPITAL.

The report of the Governors laid before the annual general meeting showed a deficiency of £382 : 18 : 5. Since the accounts were made up, however, a legacy of £100 has been bequeathed by the late Mrs. Alfred Marriott of Clifton, and one of £50 by the late Mr. Howard of Taunton; Mr. Barclay, M.P. for the borough, has put his name down for £100; and Mr. Serjeant Cox and Mr. James, the new candidates, have given £5 : 5 each, thus reducing the deficiency to a trifle over £100.

UNIVERSITY OF LONDON.

It is announced that Mr. John R. Quain has retired from the candidature for the University of London; and has thus left Mr. Lowe in the undisturbed possession of the field.

GREENWICH HOSPITAL.

We are glad to hear that, since the recent report of the Committee on Greenwich Hospital, the usefulness of that institution to the discharged invalids of the Royal Navy has been materially extended. The number of patients forwarded to receive its benefits is almost daily increasing; and the pensioners, who were summarily removed in 1865, are showing a great disposition to return. The total number of incurable sufferers now receiving the benefits of the hospital is rapidly rising to the full number contemplated by the Act of 1865 and the recommendation of the late Commission.

EXTENSION OF THE CONTAGIOUS DISEASES ACT.

The police returns of the number of women brought under the influence of the Contagious Diseases Act now include Shorncliffe and Windsor, as well as Aldershot, Chatham, Devonport, Portsmouth, Sheerness, and Woolwich. In a very short time, the Act will be put in force at Colchester, when the hospital now building is ready. During the quarter ending September 30th, the Act was applied to 3,532 women, against only one of whom was it necessary to take compulsory measures. It is an evidence of the beneficial working of the Act, that as many as 2,011 of these persons were found to be free from disease. Twelve months ago, it was rare to find one free from disease; while usually a dozen or twenty women, known to be in that condition, could not be sent to hospital for want of room.

PROVINCIAL MEDICAL SCHOOLS.

The annual return of the number of gentlemen pursuing their professional studies at the nine recognised provincial institutions, has just been prepared and forwarded to Dr. Cursham, the Government Inspector of their anatomical schools; from which it appears that the total number amounts to 284; being an increase of 27 over those of last year, although one school has disappeared from the former list, and is replaced by another—namely, the Cambridge University School. The number at each school is as follows. Birmingham Royal School of Medicine and Surgery, 72; Manchester Royal School of Medicine and Surgery, 63; Leeds School of Medicine, 32; Liverpool Infirmary School of Medicine, 30; Newcastle-upon-Tyne College of Medicine, 27; Bristol Old Park Medical School, 20; Cambridge University School, 17; Sheffield Medical Institution, 13; Hull and East Riding School of Medicine, 10.—Total, 284. It is highly gratifying to find that the increase in the number of gentlemen pursuing their professional studies is not confined to this metropolis; but that the provincial schools are also steadily advancing, as shown by the following official returns for the last six years. In 1863, there were at the nine schools, 214; in 1864, 244; in 1865, 249; in 1866, 258; in 1867, 257; in 1868, 284. Since the Metropolitan Return was published in this Journal, the number is increased to 1194; so that we have, with the 284 provincial students, the large number of 1478; and it is stated that there is a corresponding increase in the Irish and Scotch schools.

THE MEDICAL COUNCIL.

We learn that Professor Christison and Dr. Parkes have been solicited to serve again as the Crown representatives in the Medical Council, and have consented to do so. The College of Surgeons of Edinburgh has re-elected Dr. Andrew Wood as its representative for a period of two years, and this will give great satisfaction in all quarters. The Universities of Edinburgh and Aberdeen return one joint representative. The latter body has nominated Dr. Macrobin, the Dean of the Medical Faculty; and it is the general opinion that Edinburgh will again select Professor Syme. The choice of the two rivals will fall to the lot of the Privy Council.

SODA-WATER AT THE CLUBS.

The general results of our examination of soda-water are of considerable interest. In the first place, it is clear that, as a mere beverage, the most desirable kinds of soda-water are those which are made from pure deep well-water, which contain an average of about 4 per cent. of bicarbonate of soda, and, in addition to it, a small proportion of common salt, or perhaps of carbonate of lime, such as good well-waters often contain. A great disadvantage of some of the soda-waters in use is, that they are made with impure water; and that, after the effervescence subsides, they have a perceptibly flat and fetid odour. This is so common with many soda-waters, that it is considered by many an essential character of aërated waters. It is not so, however; and the best of the waters which we have examined are entirely free from it. The aërated waters, however, produced according to the formulæ to which we have referred, are not what doctors wish their patients to take when they order them to drink soda-water with their sherry. They expect that each bottle shall contain fifteen grains of bicarbonate of soda; and one only sample of all those which we examined (as will be seen on reference to our tables) corresponded to this test. Henceforth, then, it is very desirable that merely aërated alkaline water should be designated aërated water—*eau gazeuse* it is called across the Channel; and that soda-water, properly so called, should be labelled with the number of grains which each bottle contains.

THE BOILER EXPLOSION NEAR WATERLOO ROAD.

The serious explosion which occurred last week has, we are sorry to say, already proved fatal to one of the victims. There were altogether eight persons seriously injured, mostly by extensive, and, in some instances, deep scalds. These were taken to St. Thomas's and Guy's Hospitals, where they received every attention. James Bancroft, who was severely scalded on the face, arms, back, and right leg, died in St. Thomas's Hospital on Sunday, having only partially recovered from the shock he had received. William Bushby lies in the same hospital in a precarious state, and also John Powell and George Green, who, although not out of danger, are, we are informed by Mr. Inglis the House-Surgeon, doing well. At Guy's Hospital, Charles Read, although still very ill, is doing as well as can be expected. William Powell and Edward Norris are going on favourably. Mr. Bells the House-Surgeon tells us that W. J. Norris, however, is in a most precarious state, and it is to be feared he will not rally. Several cases of slighter injury were treated as out-patients. They are all convalescent.

BROMPTON HOSPITAL FOR CONSUMPTION.

The sum of £143 : 18 : 10 was collected after the recent annual appeal of the Rev. Capel Molyneux to his congregation. In the course of his address he stated that the ordinary annual expenditure exceeded £11,000; the annual subscriptions amounted to only £5560, leaving the very serious deficiency of £5440 to be made up annually from the uncertain and varying sources of legacies, donations, and church collections.

MOORFIELDS OPHTHALMIC HOSPITAL.

After twenty-five years of active duty Mr. Dixon has resigned his appointment as Surgeon to the Moorfields Ophthalmic Hospital, and the private practice of his specialty will henceforth engross his whole attention. The Committee in accepting his resignation had, with many great expressions of gratitude for his long and able services and regret at losing them, conferred upon him the honorary title of Consulting-Surgeon. Mr. Streatfeild is now appointed Surgeon, with beds. Mr. Hulke and Mr. Lawson both receive the title of Surgeon, but without beds for the present. These appointments are made under a law which authorises the Committee to elect as surgeons any assistant-surgeons who may have held office five years. It is not expected that any vacancies for assistant-surgeons will be declared at present. A large new wing will be opened shortly; and, when that is done, we may expect hope that additions to the staff will take place.

A GREAT SAVING OF LIFE.

It is seldom that we can find so striking and compact an example of the advantages of intelligent care for the public health as is afforded by the recent history of Merthyr Tydfil. Since 1850, the Local Board of Health have energetically devoted themselves to the improvement of the drainage and water-supply, and the purification of the houses and soil. Their medical officer, Mr. T. J. Dyke, now sums up the results as follows. In Merthyr, in 1852, the death-rate was 30 in a thousand; in 1867, it was reduced to $20\frac{8}{10}$. Of children under one year old, the deaths to 10,000 living were in 1852, 78; in 1867, 58. In the former year, the proportionate death-rate of children under five years to all deaths was 527 in the thousand; in 1867, it was 409. The mortality from all tubercular diseases was reduced from 66 to 48 of 10,000 living; while from that form of these diseases known as consumption, the rate of death was lessened from $38\frac{2}{3}$ to 26 in 10,000 living. The numbers of persons who at their deaths had attained the age of 70 and upwards were, in 1852, 16 per 10,000 living; in 1867, they amounted to 24. And, lastly, the mean duration of human life, as measured by the average age at death, was increased from $17\frac{1}{2}$ years in 1852 to $27\frac{1}{2}$ years in 1867. He adds: "Many thoughtlessly ignore the benefits resulting from the efficient administration of the sanitary laws; they regard with horror the one or more shillings in the pound levied as health-rate, and wholly forget to observe that the poor's rate (as far as the cost of the maintenance of the poor is concerned) has been more than proportionately lessened during the last twenty years; their memories no longer recall the sights and smells which in former days made walking in the streets of Merthyr a noisome and offensive duty; they do not think of the abundant water-supply to their houses, nor remark the infrequency of funerals. Sickness and death do not now, as of old, hurry both young and middle-aged to untimely graves. There is now as fair a prospect of a lengthened, if well spent, life in your well cleaned, plentifully watered, thoroughly drained town, as in any borough in this wide realm. We owe these priceless blessings to your sustained exertions in the administration of the laws put under your authority; and for these exertions, long continued and laborious, you will feel that you have your reward in that your works have already borne, and will continue to bear, fruit a thousandfold."

MEDICO-PSYCHOLOGICAL SOCIETY.

On Thursday, October 29th, the first quarterly meeting of the Medico-Psychological Society was held in the rooms of the Royal Medical and Chirurgical Society (by the kind permission of the President and Fellows); Dr. Sankey, President of the Society, in the chair. Dr. Harrington Tuke read a paper on the History of the Non-restraint System of Treatment, as begun in this country by Mr. Charlesworth and Dr. Gardiner Hill of Lincoln, and by Dr. Conolly of Hanwell; and ably reviewed the success of this humane treatment until the present time. Afterwards, Dr. Sankey read an original paper on the Minute Arteries and Capillaries of the Brain, accompanied by illustrations. The paper was listened to with great interest; and a vote of thanks to the chairman ended the proceedings.

OUR SURGEONS IN JAPAN.

It seems that our army and navy medical officers are extending the reputation of their profession among the inhabitants of Japan. We hear that Mr. Newton, Surgeon R.N., has already done much in arresting the extension of enthetic disease, by instituting, under patronage of the Japanese Government, examination of the women, who voluntarily present themselves in great numbers, and submit to the treatment recommended. It is expected that a Lock Hospital will very soon be provided for the reception of cases; as the system of licensing and registry of houses and persons is a native institution, in advance of us, which will render hospitals a natural consequence, so far as our influence may become recognised in the country. The late civil war has given much operative surgery to our surgeons among the wounded sent to them at Yokohama from the neighbourhood of Jeddo. We are promised detailed accounts of the nature of the wounds, which have been chiefly by rifle-bullet or sword. The bravery of the Japanese, their fortitude when wounded, and anxiety to return to the field as soon as cured, have been well proved characteristics. They endure suffering calmly, and submit uncomplainingly to death when they know its inevitableness, although willing to undergo any surgical operation in hope of recovery. Our new allies seem possessed of many qualities that must make them good soldiers; and their readiness to accept instruction will soon make them the first of Asiatic people.

THE GALVANIC CAUTERY AT GUY'S HOSPITAL.

A complete and powerful galvanic battery and cautery with the necessary instruments have been set up in the theatre for the removal of tumours and other purposes. A special day, Friday at 1.30, has been set apart for operations of this kind. Upwards of twelve cases, among them nævi and cancerous growths, were treated by this means last week by Mr. Bryant, and we believe with gratifying success.

THE COBRA-POISON.

Dr. Charles R. Francis of Calcutta has been carrying out an extended series of observations on the action of the cobra-poison, with a view to ascertaining the direction in which an antidote may be best sought. Professor Halford, of the University of Melbourne, contributed last year to our pages observations indicating a remarkable and rapid change in the blood-globules occurring immediately after venomous snake-bite. This, however, neither Indian nor American observers have been able to observe. The whole train of symptoms seem to point to nervous shock and subsequent lethargy; and the most valuable remedies yet known are admitted to be powerful diffusible stimulants and continual and forced exertion, as in opium-poisoning. In the very interesting *brochure* which Dr. Francis has just issued, containing an account of his adventurous experimentation, we find a case which seems clearly to indicate that the milk of an animal bitten by a venomous snake may become poisonous—a fact not previously ascertained.

SCOTLAND.

Sir Alexander Grant, Bart., D.C.L., was installed on Tuesday last as Principal of the University of Edinburgh.

THE CHANCELLORSHIP OF THE UNIVERSITY OF EDINBURGH.

The half-yearly meeting of the General Council of the University of Edinburgh was held in Queen Street Hall yesterday, Professor Christison in the chair. On the motion of Dr. Alexander Wood, it was agreed to enter on the minutes a suitable reference to the death of the Chancellor, Lord Brougham. The Council next proceeded to the nomination of candidates for the chancellorship, when Professor Douglas Maclagan moved the election of the Lord Justice-General, and the Rev. Mr. Phin, of Galashiels, seconded the motion. Professor Sir J. Y. Simpson moved, and the Rev. Dr. Guthrie seconded, the election of Mr. Gladstone. On a division, the show of hands appeared to be nearly equal, but the Chairman stated that he thought the preponderance was in favour of the first gentleman nominated—the Lord Justice-General. Sir James Y. Simpson demanded a poll, which was granted; and the Chairman stated that the voting papers, which would all be issued by Monday, must be returned by the 20th of November.

LUNACY AND CRIME.

A deputation of members of the Medico-Psychological Association was received by the Lord Advocate in his chambers on Friday last. Their object was to represent to the Government the great importance of a thoroughly scientific inquiry into the best means of preventing the increase of lunatics and of incorrigible imbeciles, and of protecting families and society. Amongst those present were—Dr. Laycock, Professor of the Practice of Medicine, and President-elect of the Association; the Medical Commissioners in Lunacy for Scotland, Sir James

Coxe and Dr. Browne; Dr. Maclagan, Professor of Medical Jurisprudence; Dr. Balfour, Dean of the Medical Faculty; Mr. Bruce Thompson, surgeon to the general prison for Scotland, Perth; Dr. Skae, Medical Superintendent of the Royal Edinburgh Asylum; Dr. Sibbald, of the Argyllshire District Asylum; Dr. Gilchrist, of the Southern Counties Asylum; Dr. Alexander Wood, Member of the General Medical Council for the College of Physicians of Edinburgh; Dr. Rorie, etc. The deputation impressed upon his Lordship the necessity of appointing a Parliamentary Commission to inquire into best means of preventing the increase of lunacy and the number of incorrigible imbeciles, and of protecting society. The views of the Association were explained by Professor Laycock, Mr. Bruce Thomson, Professor Maclagan, and others. The Lord Advocate expressed his sympathy with the object of the Association, and promised to use his influence with her Majesty's Government to have a Royal Commission appointed.

OPHTHALMIC SURGERY IN SCOTLAND.

On Saturday last, a handsome presentation was made to Dr. J. R. Wolfe, late Ophthalmic Surgeon in the Royal Infirmary, Aberdeen, on the occasion of his leaving for Glasgow. The chair was taken by Dr. G. G. Brown, President of the Aberdeen Medico-Chirurgical Society. Dr. Beveridge, Pathologist in the Royal Infirmary, Dr. Coutts, and others, took part in the proceedings, which had the object of testifying the esteem and regard which his scientific and personal services had won for him during six years in the study and practice of ophthalmology in Aberdeen.

REPRESENTATION OF THE UNIVERSITIES OF EDINBURGH AND ST. ANDREW'S.

A correspondence has passed between Dr. W. S. Playfair and Dr. Prosser James relative to the representation in Parliament of the Universities of Edinburgh and St. Andrew's. Dr. Lyon Playfair intimates that he shares with Dr. Prosser James the desire to see the medical practitioners more fully represented in the Medical Council, and he thinks the plan proposed by Dr. Prosser James, which has already been described in this Journal, the most practical yet suggested. He renews the assurance that he is much interested in the removal of the injustices which have rendered the public medical services of this country so unpopular with the members of the medical profession. Whereupon Dr. Prosser James gracefully retires in favour of Dr. Playfair. One of Dr. Richardson's honorary secretaries has joined Dr. Lyon Playfair's Committee; and there is, it is stated, no reasonable doubt that a large proportion of his supporters, if not an actual majority, will pass over to Dr. Lyon Playfair. Dr. W. S. Playfair lays just stress upon the fact that Dr. Lyon Playfair's whole life has been spent in the study of the very questions on which our profession most requires representation, such as hygiene, the health of towns, and the like; and on which he can claim to speak with some authority. As he has had a complete medical curriculum, and has been for years a teacher of medical men, he naturally feels himself identified with their interests, which he stands pledged to advance to the best of his ability.

THE LORD PROVOST OF EDINBURGH.

On Tuesday last, a meeting of the members of the medical profession in the city was held in the Council Chamber, when Sir James Simpson, Bart., presented to Lord Provost Chambers a requisition, signed by 131 of their number, praying his Lordship to allow himself to be again nominated for the Provostship. Among those present were—Sir James Y. Simpson, Bart., Dr. Alexander Wood, Dr. Moir, President of the Royal College of Physicians, Dr. Smith, Dr. Husband, Dr. Burn, Dr. Miller, Dr. Moir, Grove Place, etc. The requisition ran thus:—"We, medical practitioners in Edinburgh, deeply interested in all means calculated in any degree to improve the sanitary condition of the city; and believing that the measures instituted by your Lordship and already begun in different parts, would be greatly promoted by your Lordship remaining in office for a longer time, beg to request that your Lordship, with this view, would allow yourself to be again nominated to the Provostship." The Lord Provost, in reply, said he would consider the complimentary address presented to him; but, at present, circumstances prevented his giving a definite answer to the prayer of the deputation. We sincerely trust that his Lordship will be enabled to accept the office and assist in carrying out some, at least, of those radical and I trust important measures, in promoting which he has been greatly instrumental.

ELECTION OF LORD RECTOR: UNIVERSITY OF EDINBURGH.

A meeting of students attending the University of Edinburgh, was held some days ago, for the purpose of nominating a Lord Rector in room of Mr. Thomas Carlyle, whose term of office shortly expires. The *Scotsman* says eight gentlemen were proposed. The Chairman declared the show of hands to be in favour of Mr. Alfred Tennyson, poet-laureate. The other gentlemen nominated were the Right Hon. Robert Lowe, M.P.; Mr. James Moncrieff, M.P.; the Right Hon. Lord Stanley, M.P.; Sir William Fergusson, Bart.; Mr. Ruskin; Rev. Dr. Cairns, of Berwick; and Mr. George Macdonald, whose nomination, however was not seconded.

IRELAND.

DUBLIN HOSPITAL CORPORATION GRANTS.

At a meeting of the Dublin Corporation, on the 27th October, that body considered, and, after some opposition, passed, a presentment of £300 to Dr. Steevens's hospital. Dr. Owens, a member of the Corporation, and a gentleman whose services to the Poor-law Medical Officers of Ireland are well known, and have been acknowledged in our columns, made a successful resistance to an Aldermanic proposal to refuse this grant to one of the most noble medical charities of the Irish metropolis.

MEDICAL INTERESTS IN THE CITY OF DUBLIN ELECTION.

Dr. Beatty, of Dublin, has addressed a letter to Sir E. A. Guinness, and to the Hon. D. R. Plunket, the Conservative candidates, asking whether they are prepared to advocate legislation in favour of granting retiring pensions to superannuated and disabled Poor-law Medical Officers, and of otherwise improving them in salary and position. They have returned an affirmative answer, which, with Dr. Beatty's letter, has been published in the Dublin papers.

MEDICAL OFFICERS OF CITY PRISONS, DUBLIN.

At a meeting of the Corporation of Dublin, on the 27th of October, an application was made by Dr. Minchin, the Senior Surgeon of the City prisons, to restore to him his salary of £250 a year which had been last year reduced to £200, and to recoup him in the loss of £50. His application, though backed by the strong recommendation of the Board of Superintendence, was not only not listened to, but an unsuccessful attempt was made for a further reduction. Dr. Minchin has not the good fortune to belong to the party of the majority.

SIR PATRICK DUN'S HOSPITAL.

At a meeting of the Board of Governors, held on the 27th of October, Mr. W. H. Gregg, B.A., and Medical Scholar of the University, and Mr. R. M. Wall, B.A., were elected Resident Scholars in the Hospital, for the year ending November 1st, 1869; and Mr. R. Hungerford Townsend, B.A., was elected to the reversion of any vacancy that might occur in these offices during the coming year. The following rules have been made by the Board of Governors respecting these officers. "1. No Resident Medical Officer shall absent himself from the Hospital for more than three hours without reporting the cause of such absence to the Board, or without their special leave, obtained beforehand. 2. The Resident Medical Officers are required to return to Hospital, each night, before eleven o'clock; and it shall be the duty of the gate porter to report to the Board the hours at which they return to the Hospital. 3. The Resident Medical Officers are not permitted to entertain their friends in the Hospital. 4. One only of the Resident Medical Scholars may be absent from the Hospital at any time, and such absence shall not exceed three hours in each day." It was intended that the Medical Scholars of the University, for the time being, should be *ipso facto* the Resident Scholars in this Hospital; but, in the present instance, this plan has been partly departed from.—At the above meeting of the Governors, a subcommittee was appointed to arrange for the first public performance of a new sacred Cantata, written by Mrs. Joseph Robinson, and kindly offered by her for the benefit of the funds of this institution. It is said that this performance will be conducted with the co-operation of the chief musical talent of Dublin.

ANTHONY TRAILL, ESQ., LL.D.

THIS gentleman who, as noted in our late numbers, is a candidate for the representation of the University of Dublin, has issued his address. On the church, primary education, university, and land questions, he is at one with most of the electors; and, as to medical matters, he says: "Owing to the inadequate want of representation of the medical profession in Parliament, it has occurred that the interests of its members in Ireland have been completely ignored. Having myself just gone through the labours and risks of a medical education, I can understand the wants and sympathies with the feelings of the profession."

SCHOOL OF PHYSIC IN IRELAND.

ON Monday, the 2nd instant, Dr. Moore, the recently elected King's Professor of the Practice of Medicine, delivered his introductory lecture. There were present several of the professors and other members of the profession, and a large number of students. Having briefly acknowledged the honour lately conferred on him, and having paid a tribute to the ability of his predecessor, Dr. Banks, the lecturer remarked on the great change which had been wrought in the numbers attending that school since he was a student, a few years ago; and, adverting to the rapidity with which discoveries had been made in medicine of late years, he traced them in a great measure to the importance now attached to science, as compared with classics; which latter branch of education he did not, however, at all undervalue. In regard to preliminary education, he stated that a well-educated youth would observe more, and learn better and more quickly, than an imperfectly educated person; that, consequently, a greater value was now set on academically educated physicians than was formerly the case; that, for this reason, this class was largely increased in numbers, and, as these election times testified, in importance and influence also. The lecturer then proceeded to discuss the most prominent medical discoveries, and concluded his remarks amidst applause.

THE CARMICHAEL SCHOOL OF MEDICINE AND SURGERY, DUBLIN.

THE opening meeting of the session 1868-9 was held in the theatre of this school at twelve o'clock on October 29th; Sir Dominic Corrigan, Bart., in the chair. Among those present, were Drs. Adams, James S. Hughes, Stokes, Gordon, Banks, Beatty, Mapother, Stewart (of Lucan), Cruise, Belcher, More Madden, Martin, McDonnell (Poor-law Commissioner), Robert McDonnell, F.R.S., Fleming, Hayden, W. Stokes, jun., Corley, O'Reilly, and Frazer; Rev. B. Gibson, Chaplain to the Rotunda Lying-in Hospital; Charles Cobb and Hans Woods, Esqrs., Governors of the institution. There was also a large number of medical students present. The Chairman, who spoke with his usual ability and force, commenced his observations by remarking that the occasion on which they were then assembled reminded them of two names which were intimately connected with that school, Carmichael and Mayne—one was a star of the first magnitude in surgery, the other in medicine; and, in commemorating the former connection of these eminent men with their school, in which he (the chairman) had the honour of lecturing for many years, they were raising a fitting tribute to their memory by advancing those sciences in which Carmichael and Mayne had diligently and successfully laboured. The chairman then proceeded to advert to a marked feature in the examinations conducted at this school—the substitution of practical tests for what had been too long, and was still in too many places, the only test whereby the knowledge of the candidates was sought to be ascertained; namely, verbal examination. He recollected that, several years ago, when awarding premiums as a lecturer, he gave a prize to a young gentleman who missed scarcely one word throughout his examination; and, when conferring the prize, he particularly dwelt on the amount of knowledge acquired by his pupil in the course of two or three years. His (the chairman's) astonishment was, however, great, when, on visiting the Fever Hospital next day, he found that his distinguished pupil had mistaken a case of measles for typhus fever. His examination had not been a practical test; he knew everything from books; nothing from observation of the original. The Chairman then proceeded to remark that the faulty system of examination to which he had just referred, was still adhered to by many licensing bodies. The Carmichael School, which was neither a College nor an University, had set an example to the greater number of the licensing bodies in the kingdom. It was the first to require students to dissect in presence of the examiners; thus insuring that they would carry into the field of battle, or to the mill where accidents occurred, a thorough knowledge of the human system with which they had to deal. "For years" (added the Chairman) "I have been a member of the General Medical Council; and over and over again I have heard it stated that it would be impossible to carry out a system of practical examination in medicine and surgery. This school has put to shame many of these licensing bodies. It has brought its pupils to contend for prizes in medicine and surgery in the wards, while the examiners stood by. In this way, their knowledge was really tested. Every gentleman to whom a prize would be awarded to day, will have won it by showing practical knowledge of his subject; and would go into life, whether civil or military, with the very best testimonials man could get." The learned baronet concluded his speech with applause; and then distributed the prizes as follows. *Mayne Scholarship* (first award of this honour)—A cheque for £15, Mr. P. Connolly. *Carmichael Premiums*—Senior Class: 1, Mr. P. Connolly, books, value £10; 2, Mr. James A. Ross, books, value £5; 3, Mr. A. N. Montgomery, books, value £3. Second Year's Class: 1, Mr. W. J. O'Reilly, books, value £7; 2, Mr. W. R. Browne, books, value £4; 3, Mr. P. Allen, books, value £2. First Year's Class: Mr. Joseph Petit, books, value £4; Practice of Medicine, Mr. J. A. Ross, books, value £3; Chemistry, Mr. P. Allen, books, value £3; Midwifery, 1, Mr. A. N. Montgomery, books, value £3; 2, Mr. Alexander (Lecturer's Prize).—*Summer Session Prizes*—*Materia Medica*—1, Mr. Frazer; 2 (Lecturer's Prize), Mr. P. M. Clayton. *Medical Jurisprudence*—Mr. W. J. O'Reilly. *Practical Chemistry*—Mr. W. J. O'Reilly. *Botany*—Mr. O'Connell.—These prizes having been distributed, Sir Dominic Corrigan vacated the chair; and, his place having been supplied by Mr. Adams, a vote of thanks to Sir Dominic was moved by Dr. Gordon, seconded by Dr. Corley, and adopted unanimously. The proceedings then terminated; and there was not any introductory lecture delivered, as in former years, the mode of opening the session which we have above recorded having been deemed preferable by the proprietors and managers of the school.

CINCHONA CULTIVATION IN BENGAL.—A report on the cultivation of cinchona in Bengal has appeared in the supplement to the *Gazette of India*. It goes so fully into details of the method of cultivation successfully adopted at the Darjeeling plantations, that any intending cinchona-grower would require but little further instruction. The growth of cinchona in private plantations is on the increase, as during the year 11,390 plants of C. Succirubra were distributed. The majority of these were sold to planters near Darjeeling, one company alone having planted one hundred acres during the year, while one thousand plants were sent to Chittagong for distribution among the tea-planters, and one hundred were sent to the Deputy Commissioner of Hazara. Altogether Dr. Anderson estimates the number of plants on private plantations in Darjeeling at 600,000. The small plantation established in 1867 in the Khasia Hills has already begun to distribute a few plants, and has received numerous applications for others from the planters in Assam.

ABSTRACTS OF

INTRODUCTORY ADDRESSES

DELIVERED AT

THE DUBLIN MEDICAL SCHOOLS.

SESSION 1868-69.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE Introductory Address was delivered on October 26th, by Professor HARGRAVE, before the President and a large attendance of the profession and the students of the College.

The lecturer, who, on rising, was received with loud applause, said that the medical profession had passed through two remarkable epochs within the last few years. The first dated from the passing of Mr. Warburton's bill, which has not alone humanised the study of anatomy, but has also facilitated the cultivation of the science in all its details and departments. The second epoch was the passing of the Medical Reform Act. Concerning this Act there was a great difference of opinion—some considered it of no use; others laughed at its recommendations, which, although framed with great delicacy and practical good sense, were considered by them to be powerless and consequently useless. Notwithstanding these adverse opinions, he was inclined to believe that the Medical Council, as regulated by this Medical Reform Act, had done a great deal towards advancing medical science and elevating the medical profession. He sincerely hoped that no student commencing the study of his profession would be content with the meagre idea of merely scraping through the examinations. The essentials of the medical profession were anatomy, physiology, surgery, hospital attendance, and chemistry. They are now at the commencement of a complete revolution in the study of anatomy. Some gentlemen gravely asserted that the old system was altogether wrong, and that one year of the study of anatomy was sufficient for a surgeon. This proposal appeared to him to be most mischievous, and to be not a sign of progress, but rather a retrograde movement. Anatomy was the alpha and omega, the very backbone (the *τυ καλον*), of surgery and medicine, and other studies were but accessories, and he declared it to be utterly impossible for any licensing body to make any student a good practical surgeon with one year's anatomy. There were two classes of anatomists—the scalpellary and the lingual; the one gained a lasting and permanent knowledge from an untiring use of his scalpel and forceps, while the other caught but a fleeting and ephemeral recollection of the subject by the perusal of books. He advised the students to begin the study of anatomy during their first session, and he also strongly exhorted them to learn thoroughly the osseous system, which formed more than one-half of surgical anatomy. Hospital attendance, to be of permanent benefit, should be commenced early. So impressed was he with the value of hospital attendance, that he would advise students to visit hospitals during each of the four sessions through which they had to pass. Pathology, on account of the great advantages derived from it in the science of therapeutics, and in elucidating disease, deserved great attention on the part of the medical student. The time during which the student attended the hospitals was the proper period for the study of this subject, for in private practice most of the pathological investigations were unsatisfactory, in most instances being too hurriedly made to be of much value. Chemistry merited their sedulous attention and study, both from its great importance in every department of their profession, and also from its special utility in facilitating the acquirement of a knowledge of pharmacy. The lecturer next referred to the questions of lectures and the certificate system. He did not agree with those who thought that the number of lectures was so excessive that they scarcely allowed the student time for reflection and self-culture. Lectures had many advantages—they appealed to the senses in a much more impressive and effectual manner than mere reading, and they engendered a feeling of confidence between the lecturer and the pupil, which was beneficial to both. With regard to certificates, he had heard it declared that "the tyrannical system of certificates had lowered the profession during the last forty years," while another asserted that "they were a farce—dishonest and immoral," although this strenuous denouncer of certificates still continued to sign them. Admitting, for argument sake, that there might be some laxity in granting certificates, but denying *in toto* that they were a farce, or the cause of dishonesty or immorality in the student, this fact was indisputable, that as long as attendance at lectures was required, so long will certificates be demanded. Having referred to the importance of hygiene as a branch of medical study, and to the services rendered by Dr. Cameron in this department of science, the lecturer went on to detail the steps taken by the college towards obtaining for medical witnesses proper remuneration for public services. He was one of a deputation that had waited upon the Attorney-General for Ireland, from whom they had obtained a promise that a clause securing proper fees for medical witnesses would be inserted in the Common Law Courts Bill. The pressure, however, of other business on Parliament, and the dissolution of the House, prevented the fulfilment of this promise. The lecturer concluded by advising the students to cultivate self-respect, self-reliance, and industry, to be choice in the selection of their companions, and to be in their studies methodical, punctual, and persevering.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

ON Monday, the 2nd instant, the Introductory Clinical Lecture was delivered in the theatre of this institution by Mr. RAWDON MACNAMARA, Professor of Materia Medica, and Vice-President of the Royal College of Surgeons in Ireland, and one of the surgeons to the Hospital. There was a large attendance of the profession and of medical students.

The lecture was remarkably free from routine phraseology. Commencing with a welcome to all present, the lecturer defended the custom of giving "Introductories," remarking that, however the language used on such occasions might be to professional men like himself, yet, to the large number of new students who every year thronged the Dublin hospitals, these lectures were an undoubted and interesting novelty. The great use of them, continued Mr. Macnamara, was to prove to students that honours, rewards, and dignities awaited those who, with ability and industry, cultivated the medical profession; and, therefore, to the students especially he addressed himself on this occasion. Having referred to various improvements which had been effected in the hospital since last session—the new carriage entrance, the enlargement of the grounds, entrance hall, accident wards, and the approach to the theatre, for all of which he thanked the standing committee, and especially Mr. Maurice Collis, one of its members—the lecturer proceeded to notice, with gratitude, the Corporation grant which the hospital had received; lamented the want of funds *(omnibus nosocomiis hoc vitium est)*; advised the students to induce their friends to contribute, and instanced Dr. Edward Percival, a former pupil, who had put down his name for a handsome sum. Mr. Macnamara then adverted, in complimentary terms, to one of his late colleagues, Mr. William Stokes, a representative in the third generation of an illustrious medical race; and spoke in high terms of Mr. Stronge, Mr. Stokes's successor, lamenting the absence of that gentleman on the present occasion from indisposition. Dealing with the term "medicine" in its largest and most liberal sense, the lecturer discussed the question—"Is medicine an exact science?" observing that if, as in the case of mathematics, the preliminary calculations were true, then, indeed, medicine might be made one of the most exact of sciences; but considering how erroneous these preliminary calculations in medicine often were, and how disappointing was their nature, it should be admitted that the superstructure raised on quicksands so shifting was often noble in the extreme. The Professor next discussed the "medical tripod," whose legs, he observed, were anatomy, pathology, and chemistry. These he declared to be of great importance to the student; and respecting them he would say, in the words which Professor Hargrave recently used at the City of Dublin Hospital—*Nunc aut nunquam.* As regarded pathology, students were advised to study in the mortuary as well as in the hospital; and the lecturer reminded his audience that the Dublin Pathological Society was the first of its kind in the kingdom, having been in existence, and in active and valuable work, years before the kindred societies of London and Edinburgh were founded. He strongly urged on the students the necessity and value of attending the meetings of this Society, remarking that twenty years ago nearly all the present staff of the hospital occupied the benches which they (the students) then occupied; and he especially instanced the present President of the College of Surgeons, Mr. Porter, who, in so comparatively short a time, had risen to occupy the chief seat in Irish surgery. The lecturer now gave a rapid, but clear retrospect of the progress of surgical science during the twenty years to which he had just alluded, claiming telegraphy and photography as the offspring of chemistry, one of the collateral branches of medicine. Having described, in glowing language, the benefits conferred on suffering humanity, and the cases in which even now "fools rush in where angels fear to tread," he adverted to the labours of Dr. Richardson, and the useful results of local anæsthesia in surgical practice. The progress of conservative surgery, and especially the labours of Mr. Butcher in the resection of joints were warmly commended; as also the progress of surgical science in the treatment of popliteal aneurism, the deligation of the femoral artery, and the works of Bellingham and the elder Porter. His own communication to the British Medical Association in 1867, as reported in this Journal, was referred to, as was also the progress made in the way of ovariotomy, operations for stone in the bladder, urethral stricture, lithotrity, and other modern operations. Sir James Simpson's mode of acupressure was also catalogued by Mr. Macnamara, who stated that he was engaged in making experiments to test its value; but that, even now, he thought the days of ligatures, if not numbered, were shortened. The use of carbolic acid, Lister's treatment of vesico-vaginal fistula, fissured palate, the microscope, the laryngoscope, the rhinoscope, the endoscope, the otoscope, and the ophthalmoscope all came in for more than a passing notice; after which the study of hygiene, and of the modern languages was urged on the younger part of his audience. Having addressed to the students some admirable remarks on their conduct in hospital, and towards the sick and suffering poor, who, equally with themselves, were created by the same Divine Being, the learned Professor concluded an excellent and telling clinical lecture by commending to the students the weighty words "of the wisest of men"—"The fear of the Lord is the beginning of wisdom."

REPORT

ON THE

MINERAL WATERS OF COMMERCE:

WITH ANALYSES AND COMMENTS.

I.—SODA-WATER (Supplemental).

The following additional analyses, which have been made during the week, will be found of interest in connection with the Report which we last week gave.

Aërated water from Bourne, Lincolnshire, Messrs. R. M. Mills and Co.: Total solids per gallon, 119 grains; alkalinity, 85 grains of neutral carbonate of soda per gallon of water. This is equivalent to 8 grains of bicarbonate of soda in a bottle of the water.

Soda-water from Messrs. Pitt; obtained at 137, City Road: Total solids per gallon, 60 grains; alkalinity per gallon, 45 grains of neutral carbonate of soda. This is equivalent to 4¼ grains of bicarbonate of soda in a bottle of water.

Messrs. Blake's aërated distilled water contained 4.7 grains of solids per gallon.

The aërated water from Bourne, made by Messrs. Mills, enjoys a high reputation, and is sold largely by some of the best London houses. This reputation it well deserves as a pure aërated water. It contains a relatively large proportion of bicarbonate of soda, and is evidently made from a very pure natural water. It is very palatable; and is much liked by those who enjoy aërated waters as a customary beverage.

Pitt's soda-water is remarkable for the length of time during which the effervescence lasts. It retains its sparkling qualities and pleasant sharpness to the palate long after several other waters had become flat and relatively nauseous. In this respect, it resembles the "soda-water" of Styles; and probably both are indebted for this quality to the small proportion of carbonate of lime which they contain.

Blake, Sandford, and Blake's aërated distilled water is intended for medicinal purposes only. There are many medical men who find such a vehicle very convenient for medicines otherwise apt to produce nausea; and it is chemically almost absolutely pure, since a bottle does not contain more than a quarter of a grain of solids. The same makers supply aërated water, which is an ordinary good water saturated with carbonic acid.

The following letter from Messrs. Rawlings gives explanations which are perfectly satisfactory.

"Nassau Street and Charles Street, Middlesex Hospital, Nov. 5, 1868.

"Sir,—Permit us to state, in reference to your Report on Soda-Water, that we manufacture two kinds—one to be used as an ordinary beverage, the other as a medicinal drink. The latter we prepare with any quantity of carbonate of soda per bottle that may be prescribed; in the former we put rather more than is required to precipitate all the lime contained in the water. This renders the water slightly antacid; and causes it to retain the carbonic acid gas more strongly than is the case with a water free from all alkali. On the question of the total solid contents, we would remark that we consider that the less the water contains, beyond the necessary alkali, the better. We have been at great pains to purify both our water and our carbonic acid; and we are confident that nothing like a fœtid odour can be found in our soda-water, even when it has been allowed to become perfectly dead.

"We are, etc., H. D. and J. Rawlings."

DIRECT REPRESENTATION OF THE PROFESSION IN THE GENERAL MEDICAL COUNCIL.

The following document is one for which we need hardly bespeak the earnest attention of the members of the Association and of our readers generally. We expressed lately the belief that the Committee of Council would render a great service by appealing directly to the members and to the Branches to use their personal influence in favour of the amendment of the Medical Act with the candidates now seeking election to Parliament. This document puts the case with vigour and clearness. It reaches us too late to allow of any lengthened comment this week; but we cannot refrain from pressing upon our members that they should take the present opportunity to obtain parliamentary pledges both for the amendment of the Medical Act and for urging the necessity for permanence of office, improved remuneration, and superannuation allowances, to Poor-law medical officers. We shall be gratified to receive, and prompt to publish, the results of any such communications with candidates for Parliament.

To the Members of the British Medical Association and Profession.

The Committee of the Council of the British Medical Association earnestly press upon the attention of the Association and the Profession the following address, which has been drawn up by the Committee appointed at the last meeting at Oxford, to obtain direct representation of the profession in the General Medical Council; and they call upon the members of the Association and the profession generally to bring their united efforts to bear upon the attainment of this important object.

The claims of the profession to be directly represented in the General Medical Council have been already put forth. They may be briefly stated as follows.

At present, the Profession as a body is wholly unrepresented in the General Medical Council. The Government has representatives in the Council, but the Profession has no voice whatever in their election. The Universities, the Medical Corporations, and Licensing Bodies have their respective interests carefully watched over by able delegates.

The Medical Corporations, which are mainly supported by the profession, and the Government, contribute nothing to the expenses of the Medical Council. These expenses are entirely defrayed by the registration fees exacted from the medical practitioners of the United Kingdom, who, notwithstanding, have no direct voice in the body which they thus support.

But the Committee turn from the consideration of the just claims of the registered practitioners of medicine to be represented in the Medical Council, to the value of such representation to medical education, and to the welfare of the public and the profession.

Ten years have elapsed since the passing of the Medical Act, which was called into existence by the strenuous efforts of the Association, and yet some of the most serious of those anomalies and evils that led to the passing of the Act are unaltered and unredressed.

The universal enforcement of a preliminary examination in Arts is due to the Medical Council; but this result has been slow in attainment, and the minimum demanded is below the legitimate requirements of a liberal profession.

The standard of professional examination of the various Licensing Bodies varies widely in different localities, and is known to be in some instances extremely defective. This is proved by the frequent rejection of licensed practititioners by the Government Examining Boards for the Army and Navy, and by the many instances in which candidates rejected by one examining board are known to present themselves successfully for the license of some other board of less stringent requirements.

The great number and direct competition of the Examining Boards of Great Britain and Ireland, and the diverse and imperfectly reliable character of the examinations which they impose upon candidates for the License, is still a source of discredit to the profession and of injury to the public interests. So long as the Council is mainly composed of special representatives of every one of those Examining Boards, there is little probability of this great evil being remedied.

Some of the Examinations in Medicine and Surgery are still conducted only by written and *vivâ voce* questions and answers; the practical and only secure tests afforded by examination in the wards of a hospital being almost or altogether neglected.

The Council have entirely failed to deal satisfactorily with that part of professional education, corresponding to the old training by apprenticeship. This subject, which is one of general professional importance, remains in a state of confusion and perplexity.

The efforts of the Council, carried on for years to obtain an Amended Medical Act for the purpose of making effective that Clause of the Act which aims at protecting the public by preventing unqualified persons from assuming medical titles, have failed to command the due attention and effective assistance of the Government and the interposition of the Legislature. In this respect, Great Britain is behind, at least, one of the Colonies.

How is it that the Council, after ten years of assiduous labour, have not succeeded in remedying these serious and self-evident evils?

The Council have endeavoured to improve Medical Education, to discourage irregular practice, and to strengthen and raise the position of the profession, and protect the interests of the public; but these efforts have been comparatively fruitless.

What, then, are the causes that have so largely neutralised the able and well-directed efforts of the Council? They are mainly these:

1. The defective composition of the Council as a representative body;
2. The want of external support; and
3. The want of power.

1. The composition of the Council in itself neutralises many of the best efforts of the body. Ten universities and nine licensing bodies are represented by seventeen members; while, in addition to these, the Government nominates six. Thus three-fourths of the members are sent from those very bodies that control medical education, and that are, or ought to be, in their turn controlled by the Medical Council. Disinterested as are the individual members of the Council, high as is their general purpose, they yet do unconsciously neutralise each other's aims by their conflicting interests, and by the natural reserve and delicacy with which, as themselves representing corporations, they exercise control over each other. Admirable as are the Government nominees in their individual capacity, yet some of them are so connected with the bodies already fully represented, that they may not unnaturally incline, in a greater or less degree, to their interests. Granting, however, that they have every desire to support the interests of the public and the profession, even when at issue with those of the corporations, they are too few in number to control the decisions of the Council, and have behind them too small a force supporting them in their action and impelling them to exertion.

2. The profession, as a body, take comparatively little interest in the proceedings of the Council as at present constituted; and the quickening powers of public opinion and support are, therefore, lost to it.

3. It is not needful to speak here of the importance—indeed, necessity—of the increased power and more clearly defined authority of the Council; for it is self-evident that, without such power and definite authority, the Council cannot efficiently control the licensing bodies, or prevent disqualified or unqualified persons from assuming professional titles and practising under delusive pretences, to the great injury of the public, and to the discredit of the profession to which they falsely pretend to belong.

The remedy for the state of things just described is to be found in a new and amended Act, which, besides increasing and defining the powers of the Council, shall include, as its most important provision, the direct representation of the profession in the Council.

If representatives of the profession are added to the Council in the proportion of one-fourth of the total number of members, the present proportion of Government nominees being likewise preserved, many of the existing clogs to the efficient action of the Council, due in considerable part to the balancing of the various interests, will be removed. The legitimate influence of the great Educating and Licensing Bodies will still be maintained; but force, unity of direction, and definite purpose, will replace the existing inadequacy of the action of the Council.

On these grounds, the Committee of Council urge upon the members of the Association to impress the candidates for Parliament and the members of the Legislature and the Government, that, in order to secure the interests of the public and the welfare of the profession, any future Bill for the amendment of the Medical Act, ought to include a clause for the DIRECT REPRESENTATION OF THE PROFESSION IN THE MEDICAL COUNCIL.

FRANCIS SIBSON, President of the Council of the British Medical Association.

EDWARD WATERS, Chairman and Convener of the Committee.

T. WATKIN WILLIAMS, Secretary.

SPEAR *v.* DOIDGE: DEFENCE FUND.

Committee—J. Kempthorne, Esq., Callington; J. H. Willis, Esq., Lewdown; D. Thompson, Esq., Launceston. *Treasurer*—E. Pethybridge, Esq., Launceston Bank. *Honorary Secretary*—Mr. G. M. Gifford, Bellevue, Launceston. To either of these, or to the editors of the BRITISH MEDICAL JOURNAL, 37 Great Queen Street, and of the *Medical Times and Gazette*, Burlington Street, subscriptions may be paid.

The following is the subscription list at present:—

	£	s.		£	s.
W. Babbage, Esq., London	5	0	W. Swain, Esq., Devonport	1	1
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ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT SOCIETY.

A MEETING of this Society was held on Thursday, October 22nd, at the White Hart Inn, Reigate. Dr. HOLMAN took the chair at 4 P.M.; and twenty-nine gentlemen, members of the Society and visitors, were present.

The late Mr. Bottomley, of Croydon.—A resolution, recording the regret of the Society at the death of Mr. Bottomley, was proposed by Mr. BERNAY, seconded by Dr. WESTALL, and carried unanimously.

Next Meeting.—It was arranged that the next meeting of the Society should be held at Croydon on Thursday, December 17th.

Papers.—1. Mr. C. R. THOMPSON read a paper on the Use of the Fillet in Midwifery, especially in Occipito-posterior Presentations. Mr. Thompson received the thanks of the meeting for his valuable paper.

2. Dr. BRAXTON HICKS read a paper on the Pathology of Puerperal Convulsions.

3. Dr. WALTERS furnished a brief account of a curious case, in which, in spite of Prolapsus of the Uterus, with considerable Hæmorrhagic Discharge, at the third month of Pregnancy, the organ being returned, the full period of gestation was accomplished, and the patient delivered of a healthy child.

Dinner.—The dinner took place at 6 P.M., Dr. Holman in the chair, and was attended by nearly all who were present at the meeting.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE next meeting is appointed to be held at Maidstone, at the General Hospital, on Tuesday, November 10th, at 4.15 P.M.; HENRY W. JOY, Esq., F.R.C.S., in the Chair. Dinner at the Star Hotel, at 6.45 P.M.

A paper by Dr. Monckton: "Remarks and Illustrations of some forms of Arterial Disease."

Dr. Gramshaw will propose the appointment of a Permanent Medico-Ethical Committee for the District.

FREDERICK JAMES BROWN, M.D., *Hon. Secretary.*
Rochester, October 27th, 1868.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of the above Branch will be held at the Fountain Hotel, Canterbury, on Thursday, November 26th, at 3 P.M.—Dinner at 5 P.M.

ROBERT L. BOWLES, *Hon. Secretary.*

REPORTS OF SOCIETIES.

LIVERPOOL MEDICAL INSTITUTION.

THURSDAY, OCTOBER 8TH, 1868.

JOHN MCNAUGHT, M.D., President, in the Chair.

THIS was the first ordinary meeting of the present session. An interesting Introductory Address was delivered by the President. It has been determined, as an experiment, to hold the meetings weekly during this session, and to devote them alternately to the exhibition of pathological specimens, and the reading of papers and cases.

PATHOLOGICAL MEETING, THURSDAY, OCTOBER 15TH, 1868.

A. B. STEELE, Esq., in the Chair.

Dr. ROBERTS exhibited three Urinary Calculi, with Diseased Urinary Organs. The patient from whom they were removed had been known to have suffered from calculus and enlarged prostate for some time. He was admitted into the Northern Hospital in a very low state, the tongue being very brown and dry. He said he had no pain or other symptom, except the excessive debility. He rapidly sank, and died in a few days. At the *post mortem* examination the stomach and intestines were found much contracted in various parts, the former assuming an almost hour-glass shape. A portion of the jejunum had also become invaginated to the extent of about two inches. The bladder contained about two ounces of a thick white fluid and three calculi, one about the size of a pigeon's egg, and the other two about the size of beans; they were composed of uric acid. The bladder was very much contracted, its walls thickened, and its mucous membrane in an unhealthy condition. The prostate gland was enormously enlarged, its middle lobe projecting into the bladder, forming a large prominence, and having a deep pouch behind it. The kidneys were small, contracted, and nodular, and on section a quantity of purulent-looking fluid escaped from small abscesses near the surface. The section was very pale, and there was hardly any distinction between the cortical and medullary substances. A large portion of the kidney structures had degenerated. The other organs of the body were very healthy.

Mr. HARRISON introduced a man, the whole of the outer portion of whose Hand had been crushed on a railway, only the thumb having been left entire. Mr. Harrison amputated, merely leaving the thumb, and the case had gone on very successfully.—Mr. BICKERTON remarked that it was usually very dangerous to go so near the point of injury after railway accidents. He thought Mr. Harrison had done good service to the patient in leaving what he had, as an artificial hand could easily be fixed.—Dr. OXLEY, Mr. HIGGINSON, and Dr. WHITTLE also made some observations on the case.

Dr. BRAIDWOOD brought forward three cases of Foreign Bodies impacted in the Alimentary Canal. A nurse at the Carlisle Infirmary was taking some bread and milk, and struck the vessel containing it against the mantel-piece; she took a few spoonfuls more, and then complained that she had swallowed something. The finger was passed down, and afterwards the pharyngeal forceps, but nothing could be detected; a stomach-pump tube was passed easily down into the stomach, and she swallowed water and dry bread; she afterwards worked and went to bed; but soon after complained of difficulty of breathing and inability to lie down, while there was a pain over the pit of the stomach, extending to the spine. The tube was again passed without any hindrance, and diluent drinks ordered; she afterwards had dysphagia as well as dyspnœa, and next morning there was emphysema of the right side of the neck. Steam inhalations, with poultices, relieved her, but in the evening she became worse; the emphysema extended, and she died next day. On opening the œsophagus nothing was observed in the front wall; but in the posterior wall was a small lacerated wound, extending into the posterior mediastinum. A sharp-edged triangular piece of porcelain was found in an abscess in the mediastinum, where it had probably been forced by muscular action, as there had not been the slightest obstruction to the passage of the tube.—A medical man had seen a girl on the eighth day of typhoid fever when she was going on very satisfactorily; and on the tenth day a certificate of death was asked for, but he refused to give it; and a *post mortem* examination was ordered. On passing the hand to the back of the tongue something soft could be felt, and it was found there was a handkerchief impacted there, almost the whole of which had passed down the œsophagus. The middle portion of the handkerchief was deepest, and the ends were hanging out. The account given was that the patient asked for a sleeping draught, and when the nurse went out for it she heard a noise, and, on returning, the patient said she had swallowed her handkerchief; she struggled, and was held down, and no attempt being made to remove the handkerchief, and, no medical man being sent for, she died. The case was nearly brought in one of manslaughter, as it was doubtful whether the patient could have consciously forced down the handkerchief to such an extent.—A boy, while fishing, swallowed a fish-hook, which was removed by the forceps under chloroform. In connection with the second case, Dr. OXLEY observed that he had seen a hysterical patient put a handkerchief into her mouth, and this girl might have done the same, and then swallowed it.—Mr. BICKERTON thought it would be impossible for it to be done by anyone else.—Dr. BANKS was of the same opinion, and alluded to a case in a girl, who had put a mass of wisp down her œsophagus.

Mr. HARRISON shewed a specimen of Atrophy of the Bones of the Fore-arm. The patient was a woman, aged 50, who was admitted into the Infirmary suffering from apparently strumo-syphilitic disease of the arm and face. The whole of the right upper extremity was atrophied, and there was extensive unhealthy ulceration of the upper arm. A probe passed down came into contact with the bone, which was soft and easily broken down. As she was sinking, and her constitution giving way, it was decided to amputate at the shoulder joint. There was no difficulty in the operation, and the artery was compressed by the fingers. She suffered much from shock, but rallied after stimulants; vomiting then came on, which continued incessantly for a week, but ceased on stopping the stimulants; the patient was then going on satisfactorily. On opening the fore-arm the bones were found much diminished in length and circumference, the shortening was due to destruction of the ends of the bone. The humerus was fractured obliquely just above its lower extremity, but there was no history of any injury here. The other structures were all lost in a fatty gelatinous mass.—Mr. BICKERTON thought the syphilitic origin of the atrophy doubtful, but that it was rather due to loss of nutrition from some vascular obstruction or interference with the nervous supply.

Mr. BANKS shewed a Diseased Spinal Cord which was removed from the body of a young woman who, while resisting a criminal assault upon her, wrenched her back violently over the arm of a sofa. She complained of pain at the seat of the strain and pricking in the legs, but there was no loss of power in them. Next day the lower limbs became weak, and this feeling rapidly increased, so that in an hour she was almost completely paraplegic. She was taken to the Infirmary, but died on the tenth day with sloughing, etc.

On *post mortem* examination, no fracture or dislocation was found, nor were there any of the ligaments ruptured or particularly stretched. The outer envelopes of the cord were dilated with serum, a quantity of which escaped on opening them. There was only a small quantity of lymph under the arachnoid. On making a longitudinal incision through the cord, it was found completely disintegrated and acutely softened, all connection having been cut off between the parts above and below. This disintegration involved the whole thickness of the cord for about half an inch. This case proved that the cord could be severely injured without any injury to the bones.

Mr. HAKES remarked, that in this case sensibility returned rather suddenly over the lower part of the abdomen and upper parts of the thighs about three days before death, and remained a few hours.—Mr. BICKERTON and Dr. OXLEY made some observations on the case. Mr. BANKS, in replying, said this case was important in connection with railway accidents, as the same changes might take place by a chronic process. Mr. BICKERTON stated that, in more than 1,400 cases of railway injuries, he had never met with anything of the kind.

CORRESPONDENCE.

TEALE'S MODE OF AMPUTATION; MR. WHARTON'S MODIFICATION.

SIR,—In your JOURNAL for October 31st, there is a short notice of a modification of "Teale's Mode of Amputation," by Mr. Wharton, of Dublin, who proposes to dispense with the short posterior flap.

Although, in his work on amputation, my father did not describe the various phases and varieties of operating, through which he finally arrived at the method he described, I know that he tried both the plan devised by Mr. Wharton, and others which have recently been brought out as improvements, before deciding upon what he believed to be the best form of operation.

This form, described in his work, he never saw reason to alter, and it is the mode of amputation still used by my colleagues, Mr. S. Hey and Mr. Wheelhouse, and by myself, at the Leeds Infirmary.

The reason why my father considered the short posterior flap to be necessary was this; that the posterior flap, being made as a rule of the powerful flexor muscles, retracts immediately almost to the point at which the bone is to be sawn through. If, however, the posterior tissues be divided opposite the point selected for sawing through the bone, they immediately retract to a point higher up, and thus leave the posterior surface of the bone projecting and denuded of soft tissues.

This fact would not be evident in practising the operation on the dead subject, in which the flaps, from non-retractility, appear superabundant. At the forthcoming meeting of the British Medical Association, in Leeds in 1869, I hope to get together a large collection of rectangular stumps made by surgeons in the district, and of photographs of others, by surgeons in Dublin and various towns in England.

Such a demonstration may be of interest to many whom we hope to receive as visitors, and may lead to a profitable discussion and ventilation of many of the details of the operation which are more or less essential to its successful employment. I am, etc.,

Leeds, Nov. 1868. T. PRIDGIN TEALE.

SIR,—In the JOURNAL of last Saturday a paragraph is inserted, in which it is announced that Mr. Wharton, of Dublin, proposes to alter the mode of performing rectangular amputation, as directed by its author, Mr. Teale, by omitting the short flaps altogether.

Mr. Wharton proposes, if I understand the paragraph aright, to make a single rectangular flap, the breadth of which shall be equal to half the circumference of the limb, and greater by one fourth than its length, say, from the front aspect of the leg, and then to cut through the calf and the bones on the same plane. This mode I see is designated an *improvement*, and it is added that it is an admirable dissecting room operation.

Will you, Sir, allow me a little space in your next issue for a few remarks upon this latest modification of a mode of amputation, which, in the paragraph referred to, is truly said to have become "deservedly popular." My apology for troubling you is the great interest I take in the rectangular method of amputation, and the somewhat exceptional opportunities I had of watching its results, whilst, for several years, I held the office of house-surgeon to the Leeds General Infirmary.

On the second page of Mr. Teale's book on *Amputation*, the following sentence occurs. "My chief reasons for relinquishing these (the double flap and the circular) modes of operating are, the imperfect condition of stump generally resulting from them, and their great mortality." Further on he explains that, by an imperfect stump he means one, which will not allow any considerable amount of pressure to be made upon it, in consequence of adhesion of the cicatrix to the end of the bone.

One of Mr. Teale's principal objects, then, clearly was, to obtain a stump the cicatrix in which shall have no connection with the sawn end of the bone, and one which shall consist of, to use his own words, "a soft moveable covering for the end of the bone" and which is "well adapted to locomotion, being able to bear a considerable portion of the weight of the body on its end." And by the method which he devised this object has been attained in such a manner as to justify me in expressing my opinion, that stumps usually obtained by the other modes of amputation will not bear comparison with those resulting from the rectangular operation.

Now, Mr. Teale laid great stress upon the importance of making the flaps strictly in accordance with his directions, and he did so chiefly with the view of securing a sufficiency of cover. At page 10, in his book, he says: "At the time of the operation it (the flap) often appears superabundant, but in the result it is not found to be so, chiefly in consequence of the great retraction of the short flap." So impressed was he with the necessity of an abundance of flap, for the securing of a perfect stump, that, for several years before his death, he was in the habit of making the short flap equal in length to one third of the long flap, instead of one fourth only as is described in his book; and in more than one clinical lecture, delivered at the Leeds School of Medicine, he strongly insisted upon this as a decided improvement.

I will venture to predict, then, that Mr. Wharton's modification of Mr. Teale's amputation will fail in this important particular, viz.:—that in many, if not in most, cases, the cicatrix will become adherent to the immediately subjacent bone, and that, instead of a soft mass of tissues, moveable over the sawn end of the bone, which enables them to bear pressure on their extremity, the stumps obtained will consist of cicatricial tissues adherent to bone, such as we see resulting from the older methods of amputation.

I might add further objections to Mr. Wharton's suggestion, such as the tendency of the end of the bone to protrude in cases of delayed repair, especially when the muscles retract to more than an ordinary extent; the increased risk of pyæmia where the open medullary canal is placed in the very spot of all others, which pus is most likely to pass over in making its way through the depending line of incision. But I have said enough, I hope, to demonstrate the insufficiency of the advantage put forth on behalf of Mr. Wharton's suggestion, viz., the saving of bone. I am, Sir, T. R. JESSOP.

Leeds, November, 1868.

MEDICAL EDUCATION, PAST AND PRESENT.

SIR,—Of all the numerous subjects which have been constantly under discussion for the last several years, both by the medical corporations and the profession generally, few have held a more conspicuous place than that of the education of the student, and especially in the early part of his career; and, although it must be admitted that the tendency is in the right direction, and great credit is due to those who have insisted on a more advanced status of general education before commencing the professional curriculum, yet an important point has been, in a great measure, overlooked—the adaptation of the information acquired to the exigencies of general practice. A youth is taken from the upper forms of one of our public schools, passes without difficulty his matriculation examination, attends diligently the prescribed courses of lectures and hospital practice, and in due time, his proficiency having been proved by examination, receives a licence to practise. Perhaps he may have distinguished himself as a student, and taken honours at one of our universities, or colleges; but place him at the bedside of a patient, or put him to perform a simple operation in surgery, and in all probability, his position will be one painful to himself and by no means advantageous to his patient.

Only a few days since, a fully fledged M.B. and M.R.C.S., who had taken the highest honours at an especially medical university, and whose clinical notes on cases were deserving of the highest praise, assured me, that during the four years spent in medical study, he had not seen a case of measles. On more than one occasion have I engaged assistants with first-class testimonials, proving them to have been most diligent students, and yet they have been so utterly ignorant of the routine of ordinary practice, not knowing by sight the commonest drugs, being unable to perform the minor operations, and so utterly devoid of confidence at the bedside, that I have been compelled to decline their services. I am not singularly unfortunate in this respect, for, on comparing notes with my fellow-practitioners, it seems to be the rule rather than the exception.

The tendency to pass from one extreme to the opposite, has ever been one of the failings of our profession, very damaging also to our reputation with the public; and although the retrograding to the old system of requiring a seven years' apprenticeship is not worthy of a moment's consideration, yet, on no point am I more firmly convinced than this, that a short term of pupilage with a general practitioner, where the pupil has the opportunity of becoming practically acquainted with the properties of drugs, and their doses, when he first begins to prescribe for ordinary cases, and performs minor operations under the eye of his principal, and gradually goes on to attend cases of more importance on his own responsibility, is the very best introduction a student can possibly have. It enables him to derive more instruction from hospital practice, and places him in a great advantage over those who have not had that privilege, and is of immense value both to himself, and those under his treatment when he launches out into practice on his own responsibility. The want of such a practical introduction has blighted the prospects of many a young practitioner, and necessitated his taking a situation as an assistant, to acquire what may be called the business of our profession. Let me ask, then, is it not better to submit to this process at the commencement of the medical career, than after enjoying the freedom and liberties of a student's life, and with the first blushing pride of having acquired medical honours, to be compelled to submit to officiate in a subordinate capacity.

The difference between hospital and general practice is so patent as to require no demonstration. The class of patients—the circumstances in which they are placed—in the one, with every facility for medical and surgical appliances, and trained nursing; in the other, the absence of these, to more or less extent, besides having frequently adverse influences to contend with. There are also a large number of diseases which come under the notice of the general practitioner, but which are rarely admitted within our hospital walls. That confidence (under every emergency) at the bedside, which is so essential to success, rarely comes by intuition, and cannot be acquired from books, but is a gradual process. Upon these grounds, and others also, which would take up too much space to discuss, it seems to me a fair conclusion, that it is much better for the *alumni* of our profession, before commencing their purely scientific study, to have a short time of breaking in, by placing them where they can have ample opportunity of gaining confidence, and observing the details of general practice.

I am, etc. THOS. UNDERHILL.

Great Bridge, Tipton, October 1868.

ANEURISM OF THE PULMONARY ARTERY, AS A SOURCE OF HÆMOPTYSIS.

SIR,—In the last number of the JOURNAL I notice the publication by Dr. Cotton of three interesting cases of aneurism of the pulmonary artery. As far back as the year 1841, I published in the *Lancet* a very similar case to those now recorded by Dr. Cotton, and which, he believes, establish a "*new* and important practical fact". No doubt the cases are very interesting, and have an important practical bearing; and there is equally little doubt, to my mind, that the pathological condition present in these cases has been frequently overlooked in the *post mortem* examination of phthisical subjects.

My own example of the disease was exhibited by Mr. Christopher Heath at the Pathological Society about two years since, and is now in the museum of University College. Dr. Wilson Fox, in writing to me about the specimen, mentioned, I think, that Rokitansky had met with a similar case. I am, etc., S. W. FEARN, F.R.C.S.

Derby, October 1868.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

POOR-LAW INSPECTORS.

THE President of the Poor-law Board has appointed two additional Poor-law Inspectors. But in direct opposition to the special qualification which the Committee of Lords added to the recommendation on which he has thus acted, Lord Devon has not appointed persons specially qualified by medical knowledge to supervise the treatment of the sick in workhouses, he has appointed two barristers at law. One bears his own name Courtenay, the other that of the Permanent Secretary Fleming—a very pregnant commentary on the motives which have actuated the appointments.

POOR-LAW MEDICAL REFORM.

The following circular letter, addressed to poor-law medical officers by one of the local honorary secretaries of the Poor-law Medical Officers' Association, has been sent to us with a view to its wider circulation.

My dear Sir,—You ask me the plans of the Poor-law Medical Officers' Association. I can better tell you their objects, which you will find in the copy of the Laws I send you with the Quarterly Report of the Council, where you will perceive that they intend at present to press more particularly for permanence of appointments and adequate remuneration. As I understand their plan, it is to secure a numerously supported association of medical men which will give weight to their representations, to collect the opinions of the profession, to enlighten the public mind not only on the hardships which we medical men have to submit to, but on the evils arising generally from the mal-administration of the poor-laws—laws which, even when fairly administered, are productive of much evil, as well as to secure the interests and help of men who, prominent as statesmen, philanthropists, or legislators, have had their attention specially directed to the many social evils which are supposed to be mixed up with or affected by the administration of the Poor-laws. Hitherto we have been very successful in getting recruits for the Association; but to produce a good moral effect we must succeed in getting many more, and I have no doubt that before next summer we shall double our present number. You may take my view of the situation of medical men under the Poor-law for what it is worth, but I will endeavour to give it you. First, the fundamental evil amongst us, which puts us so at the mercy of the guardians, was the extreme competition in our overstocked profession at the time of the establishment of the new Poor-law; this was fully taken advantage of by the Poor-law authorities, who seemed to disregard all principles of fair dealing or humanity either to ourselves or the poor. A greater social change has occurred during he last thirty years, I believe, than many people are aware of. There is no longer any considerable number of qualified medical practitioners unemployed who would condescend to think of our appointments if we should be at last compelled to give them up; in fact, if the Poor-law Board were to attempt to enforce their rule of not permitting any Poor-law medical officer to employ an unqualified assistant, the whole system of Poor-law medical relief would collapse from the difficulty of obtaining a sufficient number of qualified men for the duty; indeed, the profession is not now so much overstocked as overworked from the immense amount of unremunerative practice thrust upon us by Poor-laws, clubs, and gratuitous institutions—often miscalled charities whilst the Poor-law system exists only by reason of our sufferance and forbearance. I do not see why, at the present time, we should agree to give an indefinite amount of work for the most beggarly pay. On the other hand, a vast change has taken place in the circumstances of our lower grades or rural society. There is no excuse now for one half of the pauperism which exists; it is very often the immediate result of the free-handed way in which guardians give orders for medical relief—the only way of giving something good which costs them nothing. Much of it is help in lieu of better wages; hence most of our best labourers in good employment are paupers in any slight trial or emergency. How can we doubt it when we know that even the outdoor labourers in the employ of peers and the richest landowners come upon the parish doctor as others, so that some portion of the employer's income—very small it may be—is extorted from the parish doctor? The ill effect of this mode of administering relief goes beyond the labourer and the doctor; the poor man looks for the aid out of the parish, which, in a christian country, it ought to be the honour and delight of the richer classes to dispense. Hence a great loss of attachment and an indifference of feeling of the rural poor for the aristocracy. Hence, too, the guardian dispenses relief with the full knowledge that what he gives is in lieu of wages. You must have noticed too that labour, instead of being abundant, is diminishing, so that its value is sure rather to increase than otherwise. The labourer is better informed, better educated, dressed, and fed, than he was within a very recent period. He is becoming more thoughtful, intelligent, and independent; and whether he become more thrifty or not, depends on whether there is a change in the administration of the Poor-laws.

The subject is wide, and I have not touched on the chance of its acquiring political importance, or the prospect of general emigration or other critical events which may turn up, or of many other things that suggest themselves to the thoughtful mind. One thing is certain, a change is impending, and while that change is taking place, if we unite, we shall gain something—perhaps shake off that horrible incubus of our connection with the Poor-laws; or, if we lose our opportunity, we may have some fresh burden put upon us. I am, etc., W. H. C.

LURGAN BOARD OF GUARDIANS; A NIGGARDLY BOARD.

AT a recent meeting of the Board Dr. Russell's salary, as medical officer of Lurgan Dispensary district, was brought before the Board on a report from the Dispensary Committee, by Mr. Hancock's secretary, which stated that they had agreed by a majority of about two to one, to recommend an increase from £75 to £85 *per annum*. Dr. Russell claimed £100 a year, the same as Dr. Cuppage had for the Montiaghs, and Dr. Stewart for Portadown, and stated in his letter to the committee that he had more work to do, in consequence of the rapid increase of the population of Lurgan, which now amounted to 11,000, the majority of the new comers being factory workers and others unable to pay for medical attendance. These reasons did not seem satisfactory to the Board; and on a comparison of the work done by each dispensary doctor during the year ending 27th September, 1857, it appeared that the medical officers of the two sub-districts of Lurgan and Montiaghs has issued 1,047 dispensary tickets, and paid 760 visits, or in all 1,807; and that Dr. Stewart, of Portadown, alone had issued 1,920 dispensary tickets, and 795 visiting tickets, making in all 2,715. Thus the very comparison made by Dr. Russell told against himself; and it was shown also that Dr. Cuppage's salary was raised to £100 a year because the Poor-law Commissioners insisted on his residing in a poor country district, where he had little or no private practice to depend on; whereas the rapid increase of Lurgan added to Dr. Russell's private practice, and increased the amount of his fees for registration and vaccination. The increase was therefore unanimously refused.

OBITUARY.

SAMUEL L. HARDY, M.D.Glasgow, F.K.Q.C.P.I.

We deeply regret to announce the death of this respected and able member of the profession, which took place in Dublin on the 29th of October, after a short illness of two days. Dr. Hardy was a well known obstetric writer and practitioner, and had been elected a Fellow of the Dublin College of Physicians only a few days ago. He did not live long enough after his election to be sworn into office.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Oct. 28th to Nov. 3rd (both inclusive).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	30.157
Highest reading of do. (corrected & reduced), Oct. 28th, 10 A.M.	30.428
Lowest ditto Ditto on Nov. 3rd, 10 P.M.	29.824
Range of pressure during the week	00.604
Mean temperature of the air in the shade	50.9
Mean temperature of evaporation	47.8
Mean temperature of dew-point	44.6
Mean degree of humidity (saturation=100)	80.
Mean maximum temperature of the week	54.3
Mean minimum temperature of the week	42.9
Calculated mean temperature of the week	48.6
Maximum temperature of air in shade, on Oct. 31st	59.3
Minimum temperature (protected), on Oct. 28th	31.6
Minimum temperature (exposed on grass), on Oct. 28th	25.2
Range of temperature during week	34.1
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on Oct. 31st	101.7
Lowest ditto ditto on Nov. 1st	64.7
Mean amount of clouds (0—10)	6.8
Total rainfall (which fell on Oct. 28th, 29th, and Nov. 2nd)	.44 inch
Mean amount of ozone (0—10)	2.0

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	0	0	0	0	1	5	1	0	3.7
2 P.M.	0	0	0	0	0	3	3	1	0	4.3
10 P.M.	0	0	0	0	0	3	4	0	0	3.6

Mean force of wind (0—12) 3.8

The weather of the week has been average fair. Atmospheric pressure has been higher than last week and more steady. Temperature has increased again by 2° F. above that of last week; while the degree of humidity is somewhat less. Winds have ranged entirely between south-west and north-west by the west—their force being often considerable during the day, but diminishing towards night. The general health is good.

Kew, November 4th, 1868.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Thursday, October 29th, 1868, the following gentlemen, having undergone the necessary examination, were duly admitted members of the College.

Dickson, John Thompson, M.B.Cantab., 33, Harley Street
Heyn, Julius C. W., M.D.Heidelberg, The Hague
Potter, John Baptiste, M.D.Edin., 2, Hertford Street, May Fair
Stocker, John Sherwood, M.D.Lond., 2, Montagu Square

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 29th, 1868.

Booth, Edward Johnson Hardy, Huddersfield
Fox, James Thorniley, Millman Street, Mecklenburgh Square
Higgins, Charles, Hambledon, Hants
Smith, Thomas, Crawley, Sussex
Stevens, George, Nayland, Suffolk

At the same Court, the following passed the first examination.

Anderson, R. B., St. Mary's Hospital
Burroughs, J. E. B., Guy's Hospital
Haynes, Horace E., St. Bartholomew's Hospital
Pedler, George Henry, King's College, London

MEDICAL VACANCIES.

The following vacancies are declared:—

ALTON UNION—Medical Officer for District No. 1.
ARDEE UNION, co. Louth—Medical Officer for the Collon Dispensary District.
BALLYMENA UNION, co. Antrim—Medical Officer for the Toome Dispensary District.
BLANDFORD UNION, Dorsetshire—Medical Officer for District No. 3.
BLOOMSBURY DISPENSARY—Physician.
BRITISH LYING-IN HOSPITAL, Endell Street—Three Physicians.
CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square—Physician.
CLONAKILTY UNION, co. Cork—Medical Officer for the Rosscarbery Dispensary District.
CUMBERLAND INFIRMARY, Carlisle—Physician.
ELY UNION, Cambridgeshire—Public Vaccinators for Districts 1, 2, 3, 4, and 5.
ENNISCORTHY UNION, co. Wexford—Medical Officer for the Newtownbarry Dispensary District, and for the Fever Hospital.
HALIFAX INFIRMARY—Assistant House-Surgeon.
HAMBLEDON UNION, Surrey—Medical Officers for the Workhouse and District of Chiddingfold.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Resident Clinical Assistant.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, Margaret Street, Cavendish Square—Visiting Physician.
MOUNTMELLICK UNION, Queen's County—Medical Officer for the Coolrain Dispensary District.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
ROCHESTER, CHATHAM, AND STROOD DISPENSARY—Dispenser.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician.
ROYAL INFIRMARY, GLASGOW—Two Assistant-Physicians, a Surgeon, and Two Assistant-Surgeons, to the Dispensary Department.
ROYAL INSTITUTION OF GREAT BRITAIN—Fullerian Professor of Physiology.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ROYAL SOUTH LONDON DISPENSARY, St. George's Cross—District Surgeon.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Surgeon.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician; House-Surgeon.
STOCKPORT INFIRMARY—Assistant House-Surgeon.
SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.
TOXTETH PARK TOWNSHIP—Medical Officer for District No. 1.
TRINITY COLLEGE, Dublin—Professor of Botany.
TYNEMOUTH UNION, Northumberland—Medical Offiicer for the Earsdon District.
WESTERN GENERAL DISPENSARY, Marylebone Rd.—Physician in Ordinary.
WESTMINSTER HOSPITAL—Resident House-Surgeon.

MEDICAL APPOINTMENT.

Names marked with an asterisk are those of Members of the Association.

Ash, Vacy, Esq., appointed Resident Medical Officer to the Royal Cornwall Infirmary, Truro.

Hart, Walter, Esq., elected Resident Medical Officer to the Kilburn, Maida Vale, and St. John's Wood Dispensary.

*Taylor, James, Esq., appointed Honorary Surgeon to the Chester General Infirmary, *vice* *Thomas Brittain, Esq., resigned.

*Williams, William, M.D., elected Medical Officer and Public Vaccinator to the Mold District, Flintshire.

BIRTHS.

Haslehust.—On November 3rd, at Claverley, Bridgnorth, the wife of *T. W. Haslehust, Esq., Surgeon, of a daughter.

Steele.—On October 25th, at 12, Meridian Place, Clifton, the wife of *Charles Steele, Esq., Surgeon, of a daughter.

MARRIAGE.

Kendall, T. E. O., Esq.. Fitzwilliam Road, Clapham, only son of *T. M. Kendall, Esq., of King's Lynn, to Emily, eldest daughter of R. R. B. Norman, Esq., at Great Yarmouth, on October 22nd.

DEATHS.

*Girling, G. Lansdall, Esq., Surgeon, at St. Ives, Hunts, aged 73, on Oct. 26th.

Moxey.—On October 15th, at Edinburgh House, Turnham Green, George Todd, the only child of *D. A. Moxey, M.D.

*Swaine, W. E., M.D., F.R.C.P., aged 64, at York, on November 1st.

Bequests, etc. to Medical Institutions.—Lord Proby has given £100 to the Northampton General Infirmary. M. D. D. Dalison, Esq., has given £100 to the West Kent General Hospital, Maidstone.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. William Adams, "On Subcutaneous Syphilitic Tumours, followed by deep Sloughing Wounds"; Dr. Henry Maudsley, "Concerning Aphasia."

TUESDAY.—Ethnological Society of London, 8 P.M. Dr. Blanc, "On the Abyssinians"; Mr. R. A. Cole, "On the Discovery of Cromlechs in India"; Lieut. Steel, "On the Khasia Tribes."—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Henry Lee, "On Excision of the Larger Joints"; Professor Humphry, "On Excision of the Knee."

WEDNESDAY.—Microscopical Society, 8 P.M. Mr. John Gorham, "On Composite Structure of Simple Leaves."—Hunterian Society. Dr. Peacock, "On some Forms of Disease prevalent during the late Hot Weather."—Meteorological Society.

FRIDAY.—Astronomical Society.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

THE paragraph headed "Diseases of the Eye", in the *Halstead Times,* is quite unworthy of any serious notice from any professional source.

TREATMENT OF ECZEMA.

SIR,—After using local applications, I have found nothing superior in obstinate cases to the nitrate of silver—five grains to an ounce of water—applied with a camel's-hair brush morning and evening, and wiped off immediately afterwards. I adopted this practice after reading an excellent treatise by a Scotch physician; I think, Dr. M'Call Anderson's. I am, etc.,

Chester Square, October 1868. C. J. B. ALDIS, M.D.

INFANT MORTALITY.

A CORRESPONDENT asks:—What is the infant nursery mentioned by Dr. Routh wherein four out of five infants died? What is the very excellent institution now existing in London whose supporters have been discouraged by the undue mortality which took place? What is the institution which has been closed for the same reason? In what publication is to be found Mr. Curgenven's paper on the Waste of Infant Life? What is the title of M. Bouchardat's recent report to the French Government, what its date, and by whom published?

*** In answer to our correspondent, we may first direct his attention to Dr. Routh's little work on *The Mortality of Infants,* wherein he will find that Dr. Routh states, as his experience of a public nursery, that "the mortality was certainly four out of five, if not more." This great mortality necessitated the closure of the nursery. Another institution, mentioned by Mr. Curgenven as receiving illegitimate children, and "farming" them out, was obliged to be closed by reason of the death of nearly all the farmed infants. The excellent institution alluded to in our former article, is the Infants' Home, 35, Great Coram Street, which is under the management of Mr. Main. At this Home, notwithstanding the greatest care and attention, out of one hundred and thirty-six children admitted during fourteen months in 1864-65, ninety-two died; and of these, *sixty* died of atrophy. Mr. Curgenven's paper on the "Waste of Infant Life" was published in the sessional proceedings of the National Association for the Promotion of Social Science, May 17th, 1867; 1, Adam Street, Adelphi. M. Bouchardat's Report can be obtained through Mr. Baillière of Regent Street.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

THE CORRESPONDENT OF THE "BRITISH MEDICAL JOURNAL" IN CHRISTIANIA ON SYPHILIS.

SIR,—In the JOURNAL of October 10th, reference is made to the long and admirably conducted debate on the treatment of that most important and wide-spread disease, constitutional syphilis, which has recently been carried on in the capital of Norway. I have had from time to time the privilege of receiving communications from Professor Boeck and Dr. Owre, as to the progress of the question in Christiania, and would like to make a few observations on the position in which the question now stands. Only a week ago, I received an admirable pamphlet, entitled "*Results of the Researches made at Christiania upon the Syphilitic Poison applied to the Human Body,* by J. Heiberg, Surgeon to the Norwegian Army, 1868", in which the following remarks are made, all of which I heartily endorse, as being the results of my somewhat extended experience. The experiments made at Christiania on the treatment of syphilis by different methods, such as syphilisation (Boeck and others), by derivation (Hjort and others), and by treatment of symptoms, by caustics, etc. (Owre and others), have shown, Dr. Heiberg says—

(*a*) That the disease may sometimes appear with insignificant symptoms: a slight roseola, some mucous tubercles, or slight excoriations in the throat. All these symptoms may disappear at the end of a few weeks, without leaving any traces. In other words, the universal venereal disease, once produced by the syphilitic poison, may become cured, or run through its natural period, without being followed by relapses.

(*b*) The different eruptive forms, which belong to secondary syphilis, may become developed in the course of four to six months, and then gradually disappear. The general condition of health is bad for a long time; but, when at length the phenomena commence to disappear, it becomes better.

(*c*) The disease sometimes developes itself more and more, without ever diminishing gradually. In this case, it may remain a long time, and until the patient succumbs to the syphilitic dyscrasia.

No remedy has yet been found by which the organism, when once altered by the syphilitic poison, can be again restored to the normal condition, so as to prevent the possibility of the disease being reproduced in the offspring.

As to the health of the patients themselves, the different methods used have had very different results, according to Dr. Heiberg. In this respect, the testimony of Dr. Hjort, who has been physician to the syphilitic hospital for forty-five years, is especially remarkable. He says that, after the treatment with mercury, tertiary forms are pretty frequently seen at the hospital; but that these have become rare during the last twelve years, since the employment of mercury has been for the most part abandoned. He adds expressly, that phagedænic and serpiginous ulcers, paralysis, epilepsy, and mental affections and the like, have very rarely manifested themselves; and, even when they have, it has been recognised that these had been the consequence of the mercurial treatment of a past epoch.

Although, sir, my experience of Dr. Boeck's syphilisation is, like most of the experience of all of us in this country, very limited, I am sure that Dr. Boeck will agree with me in saying that the chief point in the treatment of that sad plague of our race, syphilis, is first of all to get rid of mercury. And I may add, sir, that it is very rare (indeed, scarcely ever as yet) that I have been so unfortunate as to see a case of syphilis in adults, where that detestable drug had not been used, whose after symptoms were not easily amenable to the effects of large (15 grains thrice daily), not small, doses of iodide of potassium.

I cannot close this letter without expressing, if you will allow me, my personal gratitude to the Christiania medical men, for their long and well conducted discussion on the treatment of syphilis. It is very rare in this country that we find men earnest enough and unprejudiced enough to discuss the subject as they have done. I am, etc., CHARLES DRYSDALE.

99, Southampton Row, October 1868.

BOTANIST.—The name of Lobel is familiar to all botanists; from it a genus of plants received the appellation of *Lobelia.* The portrait of Matthias Lobel, who died in 1615, is scarce.

SOLUTION OF THE NITRATE OF SILVER.

SIR,—In the Notices to Correspondents in your JOURNAL of the 31st of October, is the following: "Sir,—I should be glad to know what is the strongest solution of nitrate of silver that may be used with safety as an injection in cases of spermatorrhœa, Acton speaks of ten grains to a drachm of water." In answer, I would inform your correspondent that ten grains to a drachm of distilled water may be used as an injection with perfect safety. The usual solution I have used almost daily, for nearly fifty years, has been twenty grains in one drachm of distilled water for all purposes as an external application; and I have never seen a solitary instance of the cutis vera being destroyed by its application. Nitrate of silver has a peculiar conservative property rather than a caustic one, and more calculated to preserve than to destroy. The failure of the nitrate of silver in the hands of most practitioners has been in using a weak solution; the concentrated solution is very manageable, by applying it over a surface, once, twice, or thrice, as the case requires.

Nottingham, Oct., 1868. I am, etc., JOHN HIGGINBOTTOM.

THE LATE MR. JUMP.

Subscriptions are earnestly requested on behalf of the widow and family of the late Mr. Jump, M.R.C.S., of Litcham, Norfolk. During the recent epidemic of typhoid fever, Mr. Jump and three daughters were simultaneously attacked, and he unfortunately fell a victim to the disease, leaving a widow and eight children (five of whom are too young to do anything towards their own maintenance) with barely £20 per annum. Mr. Jump was for thirty-two years a most respectable and hard-worked parish surgeon, and had no means of providing for the future. It is hoped, therefore, that the present appeal will be responded to with that kindness which characterises the members of the medical profession. Subscriptions will be thankfully received by the Rev. G. W. Winter, Rector of Litcham. or Thomas Palmer, Esq., solicitor, Swaffham. The youngest child, aged ten years, is a candidate for a foundation-scholarship in the Medical Benevolent College. The following subscriptions have already been promised:—The Rev. G. W. Winter, Litcham, £5; M. Johnstone, Esq., Reaton, Cromer, £5; Litcham Lodge of Odd Fellows, £10; Rev. K. Digby, Tittleshall, £2; Rev. C. B. Barnwell, Mileham, £2; Rev. A. Langton, Fransham, £1; Miss E. E. Winter, Hastings, £5; Miss Eliza Winter, Kington, £2; Sudlow Roots, Esq., Kingston, £2; D. Lynes, Esq., Litcham, £5; Miss Lynes, ditto, £1; Dr. Lowe, Lynn, £3 : 3; Rev. R. Blakelock, Norwich, £1; F. Manby, Esq., Rudham. £2; T. M. Kendall, Esq., Lynn, £1 : 1.

Notice to Advertisers.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

E. R.—The celebrated Sydenham was buried in St. James's, Piccadilly, as also Drs. Arbuthnot and Akenside. Oliver Goldsmith is buried in the ground east of the choir, in the little vestry beneath the organ gallery in the Temple Church.

St. George's.—The celebrated Cheselden was connected with St. George's Hospital as well as with the Westminster and St. Thomas's.

The Use of Alcohol in Diseases.

Sir,—The enclosed paper was sent to me by a lady, whom I had been attending in consultation with Mr. Anderson. Her letter, accompanying it, will best explain why it was addressed to me, and my motive for forwarding it to you for your consideration, prior to its publication in the Journal. I am, etc.,

Spalding, September 1868. Edwin Morris, M.D

"September 21st, 1868.

"Dear Dr. Morris,—I did not know at the time that your last visit was really the last, or I might have been tempted to mention the enclosed paper to you then, although not quite finished. I wrote down what had been working on my mind as soon as I was well able to do so, with the intention of putting it into the hands of yourself and Mr. Anderson when both together, requesting that, if you thought proper to sanction it, you would get it inserted in some medical publication. I felt, when writing it, that if I should not have strength to rally, it would be a satisfaction to yourselves; now that the treatment has answered, I feel that it may give weight to the intention of the paper. I believe I have said to you at different times almost all that it contains. I am afraid you will think me a very self-willed and troublesome patient altogether; but I trust you will forgive this additional infliction, as I could not send such a statement to any journal on my own responsibility, without giving you an opportunity of seeing that it was correct. Of course, I take it for granted that the name of the patient is not mentioned. The date is that of the original. . . . . I remain, yours faithfully, ———.

"*A Plea for Weak Nerves.*—I am lying in a very precarious state under an attack of low fever. The experience of the last few days has impressed me with a belief that, in certain nervous temperaments such as my own, there must often be a large amount of suffering and distress brought both upon the patients themselves and their families, by the systematical use of port wine; and I most earnestly beg the profession, to whom this paper is addressed, to bear with me while I state a few simple facts, and to give those facts their deliberate attention.

"During the first ten days of my illness, my nerves were kept in a state of thorough repose. The nights might be interrupted occasionally; but I always could sleep, and with that peculiar consciousness of rest which is so mercifully given for comfort and support in times of great debility. Port wine was urged upon me; but my extreme and, as it now appears, instinctive repugnance was yielded to; until, upon further medical aid being called in, it was decided that I must try it; and in the course of the day, and in four separate portions, I took two glasses (or rather one glass and a half of port, and half a glass of sherry with my dinner). No more rest. I felt the growing wakefulness as night came on, and there lay, hour after hour, the brain arguing against the practical fallacy of exciting the nerves in order to increase vital strength; while every nerve seemed bearing testimony against the assumed fallacy, by doing its best (in that strange flickering sensation, which is most like the dazzle of sunbeams, felt instead of seen) to use up and exhaust the very energies of life. In the early morning, I was able to sleep a little.

"It had been remarked by the physician, upon first seeing me, that it was a wonder, with such a tongue, that the brain had not become affected. I felt that night how very improbable it was that it would have borne any unusual amount of fever unharmed, had the port wine been taken two or three days earlier.

"The next day, one glass, diluted with water, was tried; but, although I did sleep that night, I was so convinced that the port wine was doing more harm than good, and I suppose the fact was apparent, that my professional friends kindly explained to me the end they had in view, leaving the means, in regard to diet, chiefly to my own discretion. The result has been, I believe, so far satisfactory. I have by no means regained the state of perfect quiet I enjoyed before the experiment of the port wine; that may be owing to the progress of the disease; but there is no actual excitement. My constitution possesses so little rallying power, that the event must still be very doubtful; but I feel that the present system is giving it its best chance.

"Delirium and sleeplessness may come as a part of the disease, and we know that, like every other trial, they will be sent for good; but it is a serious responsibility for those who have it so much in their power to inflict as well as to alleviate, if, for want of inquiring into the effect of port wine upon the nerves of their patients, only one should pass through the stages of low fever deprived of self-control, a source of harass and anxiety to all about, who might, under different treatment, have been enabled calmly to await the impending decree, either to draw nearer, or to turn back again for yet a little longer, as Infinite Love and Wisdom should see most fitting."

Entomologist.—The humming-bird moths (*Macroglossa-stellatarum*) have been very common this year. We saw and caught several at Littlehampton, Sussex.

Dr. O'Flaherty.—Consult the *Life of Sir Astley Cooper*, by his nephew Bransby Cooper. The physicians who attended Queen Caroline (1737) received 500 guineas and the surgeons 300 guineas each.

J. M. (St. Bartholomew's).—The "primary" examinations for the present session take place this day (Saturday) at the College of Surgeons. At the "pass" examination, all candidates will have to undergo one in medicine, unless they already possess a medical license, or the diploma will be retained until they have complied with this regulation.

Dr. Greene (Moira).—On reflection, we believe our correspondent will see that, in treating the question to which he refers from a purely medical and professional point of view, and eschewing all other considerations, we are adopting the only proper and justifiable course. Individuals will, of course, be guided by other and collateral considerations such as those which he urges; but, as medical journalists, they are entirely foreign to our line of thought or reasoning, and must be rigidly excluded from consideration.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Wiltshire County Mirror, Nov. 4th; The Brighton Times, Oct. 24th; The Plymouth Western Morning News, Oct. 29th; The Lincolnshire Chronicle, Oct. 23rd; The Japan Times' Overland Mail, Sept. 5th; The New York Medical Record, Oct. 15th; The Liverpool Liberal Review, Oct. 31st.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. H. MacCormac, Belfast; Dr. Bullar, Southampton; Mr. C. F. Maunder, London; Dr. Edwards, Llandudno; Dr. Farquharson, Rugby; Dr. Prior, Bedford; Mr. W. Anderson, London; Mr. J. Good, Wilton; Mr. Spencer, London; Messrs. Corry and Co., Belfast; Dr. Bridges, Bradford; Mr. Fleischmann, Cheltenham; The Vice-Registrar of the Manchester School of Medicine; Mrs. Browne, Brighton; Mr. T. Churton, Erith; Dr. W. T. Greene, London; Messrs. Black, Edinburgh; Mr. R. M. Jones, Groes; Dr. R. Elliot, Carlisle; Mr. Higginbottom, Nottingham; Mr. Orton, Malta; Mr. W. Allard, Tewkesbury; F.R.C.P., Poole; Dr. C. Taylor, Nottingham; Mr. H. Hardy, Dublin; Mr. T. R. Jessop, Leeds; Dr. Ballard, London; Dr. J. Marion Sims, New York; Mr. T. Watkin Williams, Birmingham; Dr. Duchenne (de Boulogne), Paris; Mr. R. L. Bowles, Folkestone; Mr. Augustin Prichard, Clifton; and Dr. Ogston, Aberdeen.

LETTERS, ETC. (with enclosures) from:—

Mr. A. P. Thorp, St. Ives; The Honorary Secretary of the Harveian Society of London; Mr. Crosby Leonard, Clifton; Mr. E. Garraway, Faversham; Mr. Wm. Copney, London; Mr. Alfred Hill, Birmingham; Mr. Joseph Lister, Glasgow; Mr. H. Greenway, Plymouth; The Honorary Secretaries of the Ethnological Society of London; Dr. M. H. Collis, Dublin; Dr. MacDowell, Dublin; Mr. R. J. Rogers, Brighton; Dr. Ellis, Crowle; Dr. Haughton, Great Malvern; Dr. Lanchester, Croydon; Dr. Basham, London; Dr. Goole, Derby; Mr. F. F. Smallpeice, Guildford; Dr. George Johnson, London; Dr. Lyons, Dublin; M.R.C.S.; The Secretary of Apothecaries' Hall; Mr. T. M. Stone, London; The Registrar-General of England; The Registrar-General of Ireland; Dr. John Murray, London; Dr. Treutler, Kew; Mr. Jonathan Hutchinson, London; The Honorary Secretary of the Royal Medical and Chirurgical Society; Mr. J. Taylor, Chester; Mr. G. M. Gifford, Launceston; Mr. B. Dodsworth, York; Dr. Brown, Aberdeen; Dr. Barton, Dublin; Mr. A. Wall, London; Mr. T. P. Teale, Leeds; Dr. Thomas Laycock, Edinburgh; Dr. Mapother, Dublin; Dr. Belcher, Dublin; Mr. Hickman, London; Mr. Berkeley Hill, London; Dr. Bastian, London; The Registrar of the Medical Society of London; Dr. Murchison, London; Dr. Reith, Aberdeen; Dr. E. Waters, Chester; Sir W. Wilde, Dublin; and Dr. Hayden, Dublin.

BOOKS, ETC., RECEIVED.

On the Wasting Diseases of Infants and Children. By Eustace Smith, M.D.Lond. London: 1868.

A Practical Treatise on Bright's Diseases of the Kidneys. By T. Grainger Stewart, M.D., F.R.S.E. Edinburgh and London: 1868.

Vesico-Vaginal Fistula from Parturition and other Causes; with Cases of Recto-Vaginal Fistula. By T. Addis Emmet, M.D. New York and London: 1868.

The Twentieth and Twenty-first Reports of St. Mark's Ophthalmic Hospital and Dispensary for Diseases of the Eye and Ear, 1866-1868. Dublin: 1868.

Observations on the Temperature of the Body in the Insane. By T. S. Clouston, M.D. London: 1868.

Experiments to Determine the Precise Effects of Bromide of Potassium in Epilepsy. By T. S. Clouston, M.D. London: 1868.

The Mechanical Treatment of Deformities of the Mouth. By Robert Ramsay and James Oakley Coles. London: 1868.

Report on the Sanitary Condition of Mile End Old Town for the Year ending March 30th, 1868. By Matthew Corner, M.D. London: 1868.

St. Bartholomew's Hospital Reports. Edited by Dr. Andrew and Mr. Callender. Vol. IV. London: 1868.

Third Annual Report of the Sanitary Condition of Merthyr Tydfil for the Year 1867. By Thomas Jones Dyke. Merthyr Tydfil: 1868.

Medicine, an Art-Science and its Study: being an Introductory Address delivered at University College, London, at the opening of the Session 1868-69. By John Eric Erichsen. London: 1868.

On the Action of Cobra Poison. By C. R. Francis, M.B.Lond. Calcutta: 1868.

On the Parasitic Affections of the Skin. By Dr. M'Call Anderson. Second edition. London: 1868.

Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1867. By Reginald Southey, M.D.Oxon., and Alfred Willett, F.R.C.S. London: 1868.

On Aphasia, or Loss of Speech in Cerebral Disease. By Frederic Bateman, M.D., M.R.C.P. Lewes: 1868.

The Anatomical Memoirs of John Goodsir, F.R.S., late Professor of Anatomy in the University of Edinburgh. Edited by William Turner, M.B. With a Biographical Memoir by Henry Lonsdale, M.D. Vols. I and II. Edinburgh: 1868.

The Hastings and St. Leonards Pamphlet. By J. C. Savery, Esq. St. Leonards-on-Sea: 1868.

On the Power of the Soul over the Body. By George Moore, M.D. Sixth Edition, Revised and Enlarged. London: 1868.

Memorandum on the Removal of Troops in Attacks of Epidemic Cholera. By John Murray, M.D., Inspector-General of Hospitals, Upper Provinces, India.

Revista Médico-Quirurgica y Dentistica. Nueva-York: 1868.

The Introductory Address delivered at the Westminster Hospital, October 1st, 1868. By Francis Mason. London: 1868.

Cases of Disease of the Nervous System in Patients the subject of Inherited Syphilis. By J. Hughlings Jackson, M.D. London: 1868.

Croonian Lectures on Matter and Force; given at the Royal College of Physicians in 1868. By Henry Bence Jones, A.M., M.D., F.R.S. London: 1868.

Statistical Report of the Health of the Navy for the year 1866. London: 1868.

To the Members of my own Profession, Electors of the City of Dublin.

GENTLEMEN,—I venture to address the following observations to all members of my Profession, without distinction, who are entitled to vote at the approaching election for a representative of our City in Parliament.

In my address to the whole constituency I necessarily, and in accordance with the practice in such addresses, confined myself to three great political questions now agitating the public mind, and on which the great struggle of political parties is soon to take place.

But constituents and candidates know that there are always many other questions of great importance to be considered, to which each candidate will give his attention according to his special knowledge, and the circumstances in which he may be placed.

For myself one of the paramount objects to which I will devote my attention, should I be elected, will be to remove the great injustice and cruelty of the present law under which the Dispensary Medical Officers of Ireland now labour, the injustice and cruelty of taking their services for the public as long as they have bodily strength to labour by day and by night, and then when old age and infirmity disable them, turning them out to starve and die without the smallest pension or pittance.

To the object of repealing this cruel state of the law I will devote unwearied and unceasing exertion.

The course I should propose to pursue would be somewhat different to what has been hitherto followed.

Hitherto the course adopted to endeavour to attain the desired relief has been by introducing a clause into other bills, Poor Law Bills, Civil Superannuation Bills, etc., while passing through the House. The result has always been defeat.

I know from some experience in such matters that the proposal of any clause introducing any new element into a bill during its passing is always viewed with great jealousy by the House, and on this account is seldom if ever warmly supported, lest it should imperil the original Bill.

The course I should propose to myself would be to make the desired relief the substance of a short bill probably of not more than two clauses, with a preamble to the effect that "Whereas it is just and expedient, etc., etc., to provide superannuation allowance for Medical Officers of Dispensaries, etc. etc. It is hereby enacted, etc.," then expressing the conditions on which such might be given.

The attention of members could then be drawn exclusively to the bill, their objections met, and their support gained. I am confident that it is only necessary to make the members of the House of Commons thoroughly acquainted with the question, to obtain their assent to such a measure, founded as it is on mere justice. To explain and carry such a bill I would give my time and efforts unceasingly, and earnestly seizing every opportunity of discussing it individually with members; for it is only by patient and personal explanation, and not in some single formal debate, that success will be attained. To enable me to do this, *I now ask the votes and influence of you all, Gentlemen, members of my profession without distinction, who are electors of Dublin.*

If you, Gentlemen, will support me in this endeavour to obtain justice for the Dispensary Medical Officers of Ireland, I am certain of success. If you desert me, if but a single vote of a member of position in the profession be recorded against me, that vote will operate injuriously to the prejudice of our country brethren; for, no matter how strong their case, the hostile member of Parliament will shelter himself behind such vote and say he does not believe their statement, for he will allege that, were it so bad as they state, there surely could not be found in the whole profession a single member so heartless as to bar the way, and exclude from Parliament the Candidate who had knowledge and will to support their case.

I know there are reasons that may lead some members of my profession to believe that they are not only justified but bound to vote against me at the coming election. I know that these reasons spring from a high principle of conscientiousness, and I respect them for it, differing from me as they do on the Church question; but the motive will be of no avail in counteracting the injurious effects of the act. My election or non-election cannot have the weight of a feather in the result to the Church Establishment in either way, while the effect of a single hostile vote may work unbounded harm to the cause we have all at heart, and our professional brethren in the country may with bitter and desponding feelings think there is little sympathy for them where they hoped for help.

Gentlemen, I now ask you, in the interval between this and the day of election, to weigh the question in all its bearings in your minds. I know your decision, whatever it may be, will be conscientious, and I can only hope you will come to the conclusion that the case, as it stands now before you, rests on peculiar grounds, and that you may without any sacrifice of principle give your votes for the attainment of a practical good rather than waste them for no result.

I have the honour to remain, Gentlemen, yours truly,

D. J. CORRIGAN.

Merrion Square West, October 27th, 1868.

AN ADDRESS

ON THE

ANTISEPTIC SYSTEM OF TREATMENT IN SURGERY.[*]

Delivered before the Medico-Chirurgical Society of Glasgow.[†]

By JOSEPH LISTER, F.R.S.,
Professor of Surgery in the University of Glasgow, etc.

In compound fracture, as a general rule, healing by scabbing is that which should be aimed at. When this is attained, the treatment becomes greatly simplified; while the patient is saved any drain upon the system from purulent discharge, and any risks that may attend the presence of a granulating sore. With this object in view, it is necessary that the deeper layers of the dressing should be left to form the scab, and that, while the antiseptic is renewed from time to time externally, it should not penetrate to the surface of the wound; otherwise the carbolic acid will stimulate the tissues to granulation and suppuration, though without putrefaction.

But, it may be asked, Is it not objectionable to keep the wound permanently covered up? Is it not desirable to examine it from time to time, and ascertain what is going on in it? To this I would reply by another question. Does the surgeon think it needful, in a case of simple fracture, to make an incision and investigate the state of the broken bone, the torn muscles and fasciæ, and the other elements of the contused wound which, though the integument remains entire, exists as surely as in a compound fracture? No surgeon would think of such a course. And, on the same principles, provided no unfavourable symptoms are present, we may be well pleased to leave the deep portion of the dressing to serve as a temporary skin.

Yet it must be admitted, that to change the superficial layer of the dressing, without raising the deeper layers, is often a matter of great nicety, while the admission of septic air beneath the scab would be fatal to this mode of treatment. For, the dressing being purposely so arranged that the parts in immediate contact with the wound may be free from carbolic acid, receiving none from without to compensate for loss by absorption of that which they originally contained, the lower surface of the application becomes, in a day or two, devoid of all antiseptic properties,and the penetration of living germs beneath it would lead to putrefaction there, which would spread to any extravasated blood or dead tissue that might remain unabsorbed in the wound. Rather than run any serious risk of such an occurrence, it would be far better to change the whole dressing every day. For although this would necessitate granulation and suppuration, through the continued action of the acid upon the raw surface, yet the essential object of the antiseptic treatment would be attained; that object being not the avoidance of suppuration, but the prevention of putrefaction in the wound. It is of great importance to bear in mind this distinction, which, from want of clear ideas regarding the conditions which determine suppuration, is very liable to be overlooked. A patient may die of poisoning and irritation in compound fracture, from putrefaction of the blood extravasated in the limb, before sufficient time has passed for any pus to be formed; and, on the contrary, suppuration may take place in connection with compound fracture, whether from the action of the stimulating antiseptic on the wound or from the occurrence of abscess in the contused limb independently of atmospheric influence, without the patient's life being at all endangered, provided always that antiseptic treatment is perseveringly continued.

Nevertheless, the advantages of healing by scabbing are so great that it is worth while to endeavour to attain them, and I have been long striving to improve the method of dressing, so as to get rid, if possible, of the attendant risk. A plan which has, in most cases, answered well when the putty has been used, is to make the permanent dressing of two or three layers of lint somewhat larger than the wound, wrung out of a pretty strong solution of carbolic acid in oil, say one of acid to four of oil, and covered with a piece of oiled calico or linen rag extending about an inch beyond the lint in every direction. Over this is applied a stratum of antiseptic putty, which is changed daily, or once in two days, according to the amount of discharge. The blood from the wound soaking into the lint is acted on by the carbolic acid, and changed into a firm substance which consolidates the deep dressings into a crust or scab, and this crust, while sufficiently thick over the wound to prevent the carbolic acid of the putty from penetrating to the raw surface, is so thin at its margins formed by the rag as to be there kept antiseptic through and through. Then, in changing the putty, the first thing seen on lifting up its edge is the thin margin of the calico; and even if this be accidentally raised a little, its antiseptic property prevents any mischief from resulting. The putty is spread on calico, and the calico is applied next to the deep dressing, to prevent adhesion, while the external surface of the putty is covered either with thin block tin or sheet lead, or, what more recently we found to answer quite as well, gutta percha tissue, which, though it permits carbolic acid to escape through it, is not objectionable on that account if the putty be sufficiently thick, while the gutta percha, like the metallic plate, prevents the putty from becoming dry and hard. The putty is made to overlap the permanent dressing well on all sides, and I may remark that, whether the impermeable antiseptic guard be composed of putty or not, it is of the utmost importance that it should extend freely beyond the source of the discharge in every direction, so that the putrescible fluid may have to flow for some distance beneath it before it reaches the atmosphere or any dressing containing active putrefactive organisms. The degree of overlapping of the crust by the external dressing must vary according to the amount of discharge which may be anticipated. When this is large, it should be to the extent of three or four inches. Failures have undoubtedly often occurred for want of attention to this essential point.

But though this method will, with proper care, generally succeed,[*] it would be very desirable, if possible, to get rid of the trouble involved in it. At one time I hoped this might be done by means of the plaster above mentioned, by employing a layer of it instead of the calico as the upper part of the permanent dressing, so that the adhesiveness of the emplastrum might keep the whole deep dressing securely applied to the skin, except at limited spots where the discharge might ooze out; another layer of plaster being used instead of the putty, with calico moistened with a watery solution of the acid interposed to prevent adhesion of the two layers of plaster. My anticipations, however, have not been verified in this respect. For the plaster, though it answers extremely well for an external antiseptic guard, whether in compound fracture, incised wounds, or abscesses, has proved unsuitable for the permanent dressing. The substance of the emplastrum becomes softened by the solution of carbolic acid used to moisten the calico, and permits it to enter beneath it and soak into the lint below, and stimulate the raw surface to granulate and suppurate, and this was what occurred in the case of displaced foot above mentioned. At the same time the lint is kept moist, instead of forming a dry crust, and hence it may gradually shift its place along with the plaster that covers it, involving the risk of leaving the wound insufficiently overlapped, if not exposed. I have experienced this inconvenience in two cases of compound fracture which have been treated in this way. One of these was an old lady, of 75, in whom the *os humeri* was severely comminuted just above the elbow-joint, with a considerable wound from which six loose fragments were extracted; the other, was a boy, 12 years old, whose right thigh was much contused as well as broken by machinery. These cases, indeed, have done well; osseous union having occurred as early as if the fractures had been simple ones. But in both of them the wounds healed by granulation instead of by scabbing.

With the view of getting over these difficulties I sought to obtain some kind of antiseptic cement, by which a portion of dressing might be glued down firmly upon the skin. Among other materials I tried shell-lac, and, in so doing, I accidentally hit upon a substance which appears preferable to the plaster for almost every purpose. I found that this resin could be mixed with carbolic acid in any amount by aid of heat, the result, when cooled, varying, according to the quantity of the acid, from brittleness to fluidity, the intermediate proportions giving a firm but flexible solid with a certain degree of elasticity, approaching to some extent the characters of caoutchouc. It further turned out that the lac thus associated with the carbolic acid retained it with great tenacity,[†] so that a thin layer spread on calico may be used to store up a large quantity of the antiseptic, forming an application which retains its virtues for days at the temperature of the body, and at the same time, fails to irritate the skin. It has also this great advantage over the lead plaster, that it cannot be softened by either a watery or oily fluid. The only imperfection which it appeared to shew, when used in practice as an external antiseptic guard, was that when long applied to the skin it adhered to the surface, whereas it is desirable that such a dressing should adhere very slightly if at all. This objection to it I attempted to obviate by spreading it upon gutta percha tissue which, though insoluble in carbolic acid, allows it to travel through its substance. The lac when thus lined with gutta percha proved none the less efficient as an antiseptic, and, being perfectly devoid of adhesiveness and of smooth surface, shed the discharge in a most perfect manner, greatly excelling, in this respect, the lead plaster. But it had one fault, viz., that when subjected to much bending, as at the fold of a joint, the gutta percha cracked and admitted the discharge which, gradually insinuating itself, detached the gutta percha more or less extensively, and introduced an element of risk through the interposition of a layer of liquid between the antiseptic lac and its lining. This fault has been got rid of by reducing the gutta percha to a mere film, incapable of affording lodgment for fluid, by brushing over the antiseptic lac with a weak solution of gutta percha in bisulphide of carbon which, rapidly evaporating, leaves a coating of microscopic thinness, yet effectual for preventing adhesion. We have now given this lac dressing a sufficient trial in wounds and abscesses to entitle me to recommend it with confidence.*

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[*] Continued from page 463 of JOURNAL for October 31st, 1868.

[†] The Address as actually delivered continued the discussion of the principles of the dressing, and gave details of the mode of procedure, supposing the lead-plaster to be employed in the form in which it was then described. In order to enable me to introduce subsequent improvements, I have thought it best entirely to remodel the remainder, though retaining to a certain extent its original features.—J. L.

[*] For an admirable example of success with this method, the reader is referred to the *Lancet*, August 29th, 1868, where Mr. Cresswell, of Merthyr Tydvil, reports a case of gun-shot wound of the femur, shattering the trochanteric region and neck of the bone; the wound by which the ball entered posteriorly and that in the groin by which it was extracted by incision, both healing completely by scabbing, under a crust of oiled lint, covered with antiseptic putty, daily renewed.

[†] In this respect, lac differs altogether from India-rubber, which, though it may be impregnated with the acid to any degree, parts with it rapidly.

For an antiseptic dressing that is intended to be changed from time to time, perfect absence of adhesiveness is a most valuable property; not only because it permits all discharge to escape beneath it into the porous material placed outside to absorb it, but because it avoids traction upon any deeper dressing or upon the skin during the process of withdrawing it, with the concomitant risk of regurgitation of air or liquid charged with living putrefactive organisms.

But for the permanent dressing in compound fracture this complete want of adhesiveness is the converse of what we desire. Here, the material employed, being designed to form part of the scab, should stick to the skin or to anything else that lies beneath it. The lac prepared as above described may, however, be readily made suitable for this purpose, by rubbing off the film of gutta percha by firm friction with a dry cloth, and then brushing the surface over with liquid carbolic acid. It then, at once, assumes a sufficient degree of adhesiveness.

In order to ensure healing without suppuration, it is requisite, as we have seen, not only to prevent the spreading of putrefaction into the wound, but also to protect the raw surface from perpetual stimulation by the carbolic acid. In the mode of dressing, above described, in which the putty was employed, the latter object was attained by means of layers of lint forming a crust too thick to be penetrated by the acid supplied externally; and the same plan would, no doubt, succeed as well with the lac. But to trust to the mere thickness of a penetrable crust, is not altogether satisfactory. It would clearly be better, if possible, to protect the exposed tissues from the stimulating antiseptic in the lac by a layer of some substance chemically impermeable to carbolic acid. A metallic plate possesses this property; and in its more flexible forms, such as thin block tin or sheet lead, it seems likely, at least in ordinary cases, to answer well. I have, as yet, only had opportunity to try this method in two cases, but both of these have presented points of interest which make them deserving of mention.

Case of Contused Wound treated with Block Tin and Antiseptic Lac.—The first was a contused wound, three inches long, over the lower part of the tibia, with some undermining of the skin, in a young man of 20, occasioned by the limb being violently squeezed between a heavy iron pipe and a fixed piece of machinery. Happening to be at the Infirmary soon after his admission, I dressed the case myself, washing and syringing out the wound with a saturated watery solution of carbolic acid, and covering it with a well-fitting piece of thin block tin of rather larger size, washed with the watery solution, and then applying a piece of lac-plaster, deprived of its gutta percha layer, overlapping the tin freely on all sides. A piece of calico was placed outside the lac-plaster, to prevent adhesion of its edges to a dry cloth, which was wrapped round the leg to absorb discharge, and was intended to be changed. Next day, there was a good deal of sero-sanguineous effusion on the cloth, for which another was substituted, moistened with a solution of carbolic acid in four parts of olive oil. The same was afterwards done daily; the discharge diminishing rapidly, and the limb remaining free from swelling or pain, and the constitution from disturbance, till, on the fourth day, the patient, who was a silly youth, was seized with a desire to see the injured part, and tore off all the dressings. This foolish proceeding on his part gave us the opportunity of making an interesting observation. The wound was found perfectly level with the general surface of the skin, being filled with a clot of smooth surface corresponding to that of the tin which had covered it, while the edges of the skin were pale and natural in appearance. The dressing was re-applied as before, the wound being superficially washed with carbolic acid lotion in the process. Two days later the patient again, without any reason, laid bare the wound, which still presented the same characters, except that the surface of the smooth clot shewed, here and there, some minute whitish specks, probably in consequence of the action of the watery solution of carbolic acid with which it was washed two days previously. A similar dressing was again employed, the use of carbolic lotion being again necessarily involved. After two more days, that is to say a week after the accident, the patient, though free from symptoms, having again removed the dressings, the wound was again examined. It was free from pus or odour of putrefaction, but its surface was mottled with red and yellow spots, and was not quite level. The dressing was continued one day longer, when it was abandoned, as the patient could not be induced to leave it alone, water-dressing being used instead; and on the following day the wound presented the characters of a healing superficial granulating sore. Two days later, he was so unruly that he was discharged for misconduct.

In the following case we have had the opportunity of seeing the effects of this mode of dressing when left undisturbed.

Case of Compound Fracture of the Leg treated with Block Tin and Antiseptic Lac.—On the 3rd of October, 1868, a porter, 25 years old, was unloading a waggon in a warehouse, when a box, weighing about four hundred-weight, slipped, and striking him upon the left leg, knocked him down over an opening in the floor, through which he would have fallen into the room below had not the heavy box, pressing upon the limb, pinned him down and kept him suspended. When rescued from this situation, he was taken to the Infirmary, where my house-surgeon, Mr. Malloch, found the leg much distended with extravasated blood, with a wound, three-eighths of an inch in length, on the inner side, about midway between the knee and ankle, bleeding freely and communicating with a transverse fracture of the tibia. A probe (smeared with an oily solution of carbolic acid to prevent the introduction of septic particles) could be introduced beneath the undermined fascia for about three inches in every direction except downwards, and also passed, for the same extent, directly outwards behind the tibia which was felt to be denuded of its periosteum. Having injected into the wound, with a syringe, several ounces of a saturated watery solution of the acid, and diffused it freely through the limb by pressure, to mix it with the extravasated blood, Mr. Malloch placed a piece of thin block tin about an inch square over the orifice, and, after pressing out as much as possible of the blood and watery solution, applied a piece of lac plaster deprived of its gutta percha lining, overlapping the tin a couple of inches in every direction, and over this a folded cloth moistened with a solution of carbolic acid in four parts of olive oil. The limb was then put up in lateral pasteboard splints. This treatment relieved the severe pain which he was suffering; but it returned in the course of the next few hours, during which very free hæmorrhagic effusion occurred. Next day the discharge became greatly diminished, and in the course of the following day it ceased entirely. The pain also left him about twelve hours after the accident and never returned. The after treatment consisted for the first two days, in renewing the oily cloth once in the twenty-four hours; but from the third day onwards the cloth was left permanently upon the limb and merely brushed over with a mixture of equal parts of carbolic acid and oil, the inner splint being raised for the purpose without disturbing the limb, which lay upon its outer side with the knee bent. After the sixth day, the antiseptic oil was only applied once in forty-eight hours. On the third day, some wrinkling of the epidermis indicated subsidence of the swelling which afterwards fell rapidly till, by the eleventh day, the calf was almost of natural size, having shrunk away considerably from the splint. His pulse never rose above 82, which was its number the day after the accident, and his general health was from that time forward quite unaffected.

Ten days after the receipt of the injury, it was noticed that the oily cloth, which for a week past had indicated complete absence of discharge, exhibited an appearance of additional staining, corresponding to two or three drops of red serum which seemed to have been pent up beneath the lac plaster by inspissation of the blood and serum round its margins, till some accidental cause, such as the shrinking of the limb, cracked the dried exudation. Having been led to disturb the dressing to some extent in investigating the source of this discharge, I thought it best to remove it entirely, protecting the wound at the moment of its exposure with a bit of antiseptic lint. The under surface of the lac gave distinct indications of being impregnated with carbolic acid. The wound presented a very interesting appearance. It had shrunk considerably; but its margins resembled those of a perfectly recent wound; and its orifice was occupied by a projecting dark clot, which to the naked eye scarcely differed from a fresh coagulum. Hence there seemed reason still to hope for healing without suppuration, if the original mode of dressing were repeated. Accordingly, the tin smeared with carbolic acid was replaced, and overlapping it a fresh portion of lac plaster, rendered adhesive by touching it with carbolic acid after removing the film of gutta percha, except in a narrow space from the centre to one side, where the gutta percha was left, to provide for the escape of discharge. A dry cloth and the splint completed the dressing. Two days later, in order to maintain the lac plaster in an antiseptic condition, two layers of calico, moistened with a solution of carbolic acid in four parts of olive-oil, were substituted for the cloth; and afterwards, at intervals of from two to three days, the surface of the calico was lightly brushed over with a mixture of equal parts of the oil and acid. For six days, some yellowish serum, amounting at first to one or two minims in twenty-four hours, but gradually diminishing, exuded from below that part of the margin of the lac plaster where the gutta-percha film had been left, the amount being estimated by changing every day a little bit of antiseptic lint placed at the point of exudation. But, after the sixth day, the piece of lint was left unchanged, as the trifling discharge seemed to have ceased entirely. When eleven days more had passed without any change, I thought it well to ascertain again the state of the wound; and on October 30th, seventeen days after the second application of the deep dressing, and two days short of four weeks after the accident, I pulled off the lac plaster with the tin adhering to it. The plaster was still sticking to the skin, and drew away the hairs along with it, except where the gutta-percha film remained. At this part, along the course of the track of exudation, the skin had an orange stain, from serum mixed with altered hæmatin, and was moist, except near the edge of the plaster. Beneath the tin, also, there was the same kind of orange moisture. The wound appeared at first sight unhealed, having an orange-red aspect; but, on wiping it with a piece of lint, a perfect cicatrix was disclosed, which had been covered with the remains of the little portion of clot seen projecting from the orifice on the former occasion of exposing it. A piece of dry lint was placed upon the scar; and the splints were readjusted, the fragments being in good position. The case was now reduced to one of simple fracture.

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* This plaster is supplied at a very moderate price by the New Apothecaries' Company, Glassford Street, Glasgow, to whom I am much indebted for the interest and pains they have taken in bringing it to perfection. The following is the mode of its manufacture:—Take of shell lac, 3 parts; crystallised carbolic acid, 1 part. Heat the lac with about a third of the carbolic acid over a slow fire till the lac is completely melted; then remove from the fire and add the remainder of the acid, and stir briskly till the ingredients are thoroughly mixed. Strain through muslin, and pour into the machine for spreading plaster; and, when the liquid has thickened by cooling to a degree ascertained by experience, spread to the thickness of about one-fiftieth of an inch. Afterwards, brush the surface of the plaster lightly with a solution of gutta percha in about thirty parts of bisulphide of carbon. When the sulphide has all evaporated, the plaster may be piled in suitable lengths in a tin box without adhering, or rolled up and kept in a canister.

This case presents several features of great interest. In the first place, the appearances disclosed on the removal of the dressings on the tenth day after the accident, afford as good an illustration as could be desired of the fact that the surface of a wound is not induced to suppurate, or indeed to undergo any appreciable change by the contact of a foreign body, destitute of chemically stimulating properties. The carbolic acid with which the surface of the tin was washed, like that injected into the wound, was absorbed into the circulation before it had time to bring about those changes in the part which are the essential preliminary to suppuration. The tissues of a recent wound are incapable of forming pus, however much they may be stimulated, whether by nervous (*i. e.*, inflammatory) excitement, or by chemical irritants, such as the products of putrefaction or pungent antiseptics. It is only when they have been gradually changed under the influence of prolonged abnormal stimulation into that rudimentary form of tissue which, when we see it on the surface of a sore, we term granulations, that they are liable to produce, when still further stimulated, the still more rudimentary pus corpuscle. It is upon this that the possibility of obtaining primary union on the antiseptic system depends. The antiseptic applied to the wound in the first instance is a powerful stimulant, but it is absorbed before it has time to bring about granulation in the tissues.

In the second place, it is very satisfactory to see, although theoretically it could hardly have been doubted, that, when a wound has been effectually protected from stimulation and consequent granulation, it may, even at a late period after its infliction, be again subjected to the temporary stimulus of an antiseptic application without being made to suppurate; for a knowledge of this fact will enable us to examine the wound when we think there is a fair prospect of healing being complete, confident that, should the reverse prove to be the case, we can again employ the original mode of dressing without interfering with the process of healing by scabbing.

Thirdly, I may remark that cicatrisation without suppuration beneath a piece of tin, is a novel mode of healing by scabbing. But the ordinary scab is in so far analogous to the metallic plate, that the exudations of which it is composed having dried before they had time to putrefy, the crust is, like the metal, a neutral or unstimulating solid. Further, there is putrescible moisture beneath the scab as beneath the tin; but the mode in which the putrefactive organisms are excluded is essentially different. The scab keeps them out mechanically, by adhering firmly to the surface of the integument; the metallic plate opposes no mechanical barrier to their entrance, but is guarded by a germ poison in the surrounding lac which no less imperatively forbids their access.

Altogether, the case must be regarded as affording great encouragement for giving a further trial to this method, which seems to bring the treatment of compound fracture to something nearly approaching perfection. The lac, being impermeable to discharge, combines the properties of an external antiseptic guard with those of a permanent crust; and, as fresh carbolic acid can be supplied to it as often as may be desired without disturbing its position, the trouble and risk that attended the changing of the putty are entirely got rid of. At the same time the tin protects the raw surface from the acid with absolute certainty, while the tin and the lac constitute together so thin a layer as not to alter the contour of the limb, or interfere with the shape of splints such as would be used for simple fracture; a considerable advantage as compared with the mass constituted by a thick crust, covered with substantial putty. When the wound is large, I would advise the use of two layers of the lac plaster for the sake of additional strength, the outer one overlapping the inner by an inch or two; and the outer, like the inner, rendered adhesive, as above described, so that the two may become incorporated into one mass. Also, I would recommend that, as was done in the second dressing of the last case, the film of gutta percha should be left upon a track leading from the tin to what is to be the most dependent part of the edge of the plaster to afford free egress for sero-sanguineous discharge.

For treating the interior of the wound in compound fracture, I employed, till comparatively lately, the undiluted acid, and, as this afforded excellent results, I did not venture to change the practice without having some more substantial basis than hope to found upon. But rather more than a year ago, having observed that the injection of a saturated watery solution (one part of acid to twenty parts of water) among the fibrous tissues in a fœtid suppurating wound of the palm, completely arrested the existing putrefaction, I concluded, that if the acid so diluted sufficed to destroy the abounding putrefactive organisms which must have been present among the textures in that case, it must surely be trustworthy for compound fracture. We have accordingly employed the saturated watery solution in all the numerous cases of compound fracture that have since come under my care, and in no instance has it failed. If it answers equally well, it is obviously superior to the strong acid, since it does not produce the slightest sloughing from caustic action, and, being a less powerful irritant, causes a less copious serous effusion. Besides, it may be injected and diffused among the tissues which are the seat of extravasation with a freedom which could not be used with the acid of full strength, and it is to this circumstance that I am disposed to attribute the fact that we have obtained success at a period after the infliction of the injury which I should formerly have thought quite hopeless, in one case, for example, as late as thirty-six hours after the accident. Lastly, we avoid a disagreeable symptom which we used to observe occasionally after applying the undiluted acid freely to large wounds, viz., obstinate vomiting for about twenty-four hours, occasioned, no doubt, by imbibition of a poisonous dose into the circulation.

[*To be concluded.*]

THERAPEUTIC USES OF OXYGEN.—M. Constantin Paul sums up a paper on this subject as follows. 1. Oxygen is not a poisonous gas; and thirty *litres* of this gas in the pure state can be inhaled for several days without any accident. It is only at the end of two or three weeks that fever is produced. 2. Oxygen is a valuable resource in cases of asphyxia, especially when this is due to accidental suffocation. It may be useful in cases of strangulation, hanging, and drowning, as well as in poisoning by noxious gases or vapours. 3. Oxygen is a valuable remedy in nervous asthma. In humid asthma—*i.e.*, the catarrh which complicates emphysema—it will also be of good service, provided its use be persisted in. 4. In phthisis, oxygen has not given such good results as were expected. It produces immediate relief, and this is very valuable; but fresh exacerbations follow, more intense, perhaps, than the first. It can, then, be regarded only as a palliative. 5. In albuminuria, oxygen may become a valuable remedy, if it be found, by further observation, to cause the albumen to disappear from the urine, as was observed in a case by Eckart and in one under the author's care. In any case, the remedy should be tried. 6. The same remark is applicable to diabetes. 7. In local gangrene, if there be not obliteration of the arteries, oxygen is a sovereign remedy.—*Bulletin Génér. de Thérap.* 15 August, 1868.

CONTRIBUTIONS TO PLASTIC SURGERY.*

By MAURICE H. COLLIS, M.D.Dub., F.R.C.S.I.,
Surgeon to the Meath Hospital and County Dublin Infirmary; Examiner in Surgery to the Royal College of Surgeons in Ireland; Chairman Irish Medical Association.

I.—Vesico-Vaginal Fistula.

I purpose making a few remarks upon some improvements in this branch of surgery, which have from time to time suggested themselves, or been suggested, to me in the course of an experience now reaching over a quarter of a century.

The use of anæsthetics has given an especial stimulus to this department of surgery; but yet, as will be seen, full benefit has not been drawn from them hitherto in this country. Still, it was not until chloroform and ether had given both surgeon and patient adequate courage, that operations requiring a long period for their performance, and otherwise entailing much suffering, were undertaken to any extent.

The first branch of plastic surgery to which I now wish to draw attention, is that which deals with fistulæ connected with the vagina and the bladder or rectum. These have been treated by cautery, by suture, and by transplantation of flaps. To the various methods I have contributed one, which has proved not unsuccessful in my hands, and in those of others who have taken pains to master its details. I got the idea from Pancoast, an American surgeon, and author of a work on Operative Surgery. He describes a plan by which he treated a vesico-vaginal fistula successfully. It is briefly as follows. He pares one side of the fistula so as to make it wedge-shaped, stripping it of its mucous membrane, both on vesical and vaginal surfaces. The opposite side or margin of the fistula is split so as to form two flaps, one vesical and the other vaginal; the raw surfaces, when undisturbed, lying in contact. Between these two flaps, the raw wedge-shaped margin on the opposite side of the fistula is pushed and held by sutures. This sort of dovetailing of the flaps seemed to me an ingenious and happy method of increasing the amount of raw surface, and so, of increasing the chances of union.

I had not been long acquainted with this method, when I chanced to meet a case of vesico-vaginal fistula which seemed to me capable of cure. It was the first I had seen; for at this date (1856) they were looked upon in Dublin as incurable. At least, the success was so slight, that men had given up trying any plastic operation for their cure. If a touch of the cautery would close them, well and good; but if the size were too great for that, they were dismissed as incurable.

The method I adopted in my first case has since become known in foreign parts as Collis's method. It is, however, simply a modification and improvement on Pancoast's. I split the margins of the fistula all round to an extent of at least half an inch. This incision of the margins must always pass well through any tough cicatricial tissue, and reach sound areolar tissue. If this point be not attended to with great care, the operation will fail. Having split the margins, I now insert a sufficient number of quilled sutures (Fig. 2), and, on tying the loose ends with a moderate degree of tightness, the flaps open up, and a very large amount of raw surface is made available for union.

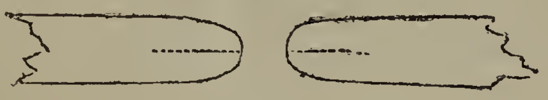

Fig. 1.

Fig. 3 shows the position of the quills and margin on the stitched or vaginal aspect.

Fig. 4 is a sectional view, showing not only the position of the parts depicted in the previous figure (3), but also the mode in which the vesical flaps adapt themselves to one another; also, the position of the quills and sutures.

This mode of treatment has succeeded well in my hands, and in those of Dr. Kidd and other friends. The result in my own practice is thirteen cases and nine cures.

The advantages of this method are—1. There is no loss of tissue, as in paring operations. 2. There is a very large amount of raw surface compared to any paring operation. 3. The flaps towards the bladder will often unite, while the vaginal flaps may fail to unite, either from suppuration or ulceration. Even when the vaginal flaps have been allowed to slough off from undue tightening of the sutures, union of the vesical portion has taken place. 4. These flaps act also as valves to prevent the access of urine to the wound.

I would only add, that the length of time I leave the sutures uncut depends on the extent and the toughness of the flap. It will vary from the third to the sixth day. I keep the bowels quiet with moderate doses of opium. I keep a catheter in the bladder for forty-eight hours; and I generally place a piece of soft sponge in the vagina to support the

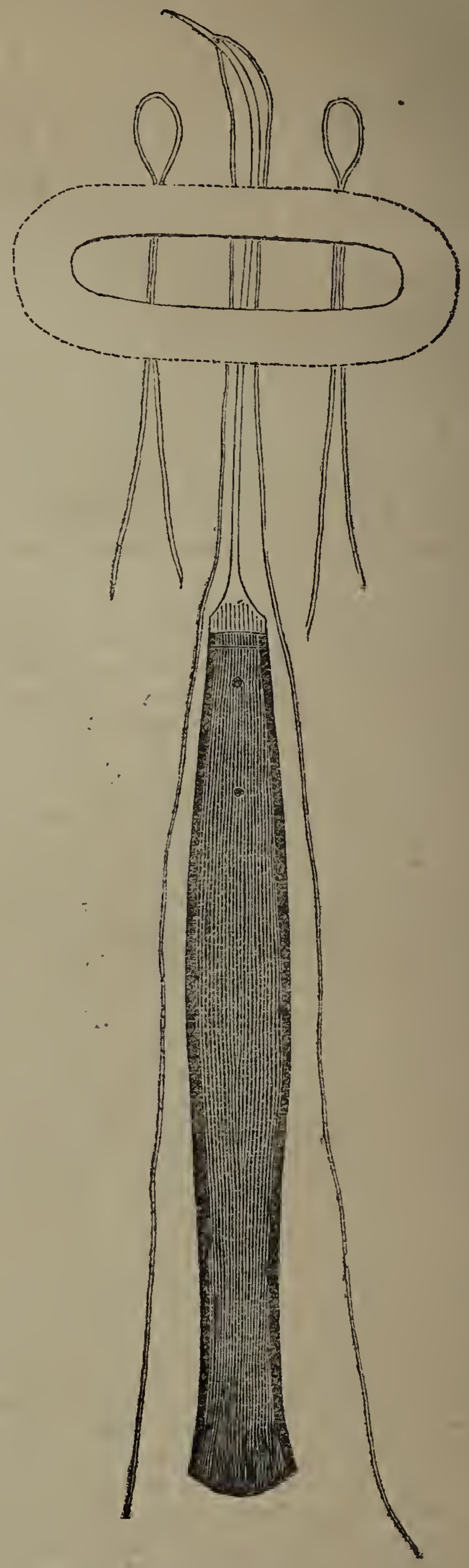

Fig. 2.—Inner dark line shows margin of fistula. Dotted line shows extent of dissection.

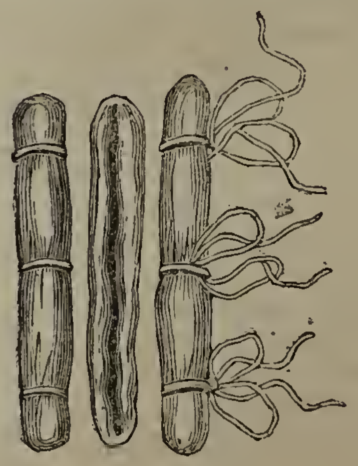

Fig. 3.

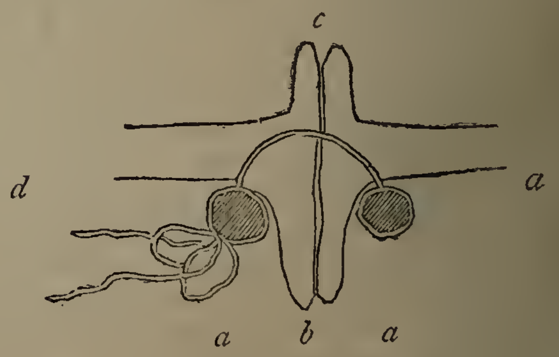

Fig. 4.—*a*. Section of quills and position of suture when tied. *b*. Vaginal flaps. *c*. Vesical flaps. *d*. Vesico-vaginal septum.

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* Read in the Surgical Section before the Annual Meeting of the British Medical Association in Oxford, August 1868.

sutures, just enough to assist in making a moderate pressure on the bladder, and keep it from much movement. I may add, that I have often resorted with success to this method when other methods had failed.

[*To be continued.*]

ANCIENT TRACES OF ANTISEPTIC TREATMENT IN MEDICINE AND SURGERY.

By GEORGE F. ELLIOTT, M.D.,
Physician to the General Infirmary, Hull.

At a time when the antiseptic treatment of both local and constitutional diseases is justly looked upon with favour, I hope to interest your readers by showing that some of our ancestors were in the habit of using and appreciating the value of antiseptic remedies, although they may not have given them with the same views of the etiology of certain diseases as are generally entertained at the present day. By antiseptic treatment in surgery, it is scarcely necessary for me to say that I allude to Mr. Lister's treatment by carbolic acid. As regards the practice of medicine, I may explain that I allude particularly to the treatment of zymotic diseases by the sulphites, as proposed some years ago by Professor Polli of Milan.

In turning over some of the many old works in our Infirmary library, I recently found a curious and interesting book, entitled *A Treatise on Alkali and Acid*, by John Colbatch, M.R.C.P.; published in London in the year 1698. This Dr. Colbatch appears to have been in practice in London at this time, and was previously on service with the army of William III at the siege of Namur; indeed, he says it was during his leisure moments on this service that he composed the treatise to which I allude. He was a man, I think, considerably in advance of his time; and he appears to have incurred a good deal of enmity for what were then unorthodox opinions; to which enmity he makes the following graphic allusion: "He that would pass the course of his life without envy, must believe what is generally believed, and speak as others do; and whoever takes upon him to do otherwise, let the success of his undertaking be what it will, the reward he is like to meet with from the generality of mankind, is to be reproached". I have said that he was in advance of his contemporaries, because he appears to have anticipated some recent conclusions as to certain properties of the blood in health and disease; for instance, he distinctly states that a volatile alkali can be obtained from the blood; also, that he believes this alkali to be increased during fevers, and that, by its excess, it breaks up the blood-corpuscles; and, looking to this alkalinity of the blood, he strongly recommends the administration of acids in fevers. Among the acids he speaks of, is one which bears particularly on the question of antiseptic treatment. I mentioned Professor Polli's recommendation of the sulphites, the active agent of which, sulphurous acid, has found a place in the *Pharmacopœia* of the present day. Now, Dr. Colbatch alludes to this preparation under the name of "gas sulphuris"; and gives directions for preparing it by, as he describes it, "impregnating water with the volatile acid steams of sulphur"; and thus he makes a compound differing only as to the manner of its preparation from the present pharmacopœial one. After enumerating many diseases in which he has found it of benefit, he thus finally sums up his opinion of it. "This medicine, given liberally in malignant fevers, has done wonders, even where people have been given over as dead. It is an excellent medicine, being taken by way of prevention in infectious seasons; and I think, if any medicine deserves that name, this doth deserve to be called the true prophylacticon." I am not prepared to go as far as our author in the way of eulogium concerning this medicine; but I may here say, that I have lately been using it in typhoid fever, and in cases of diarrhœa suspected to be due either to tainted water or unhealthy emanations, and I have reason to speak highly of it.

Appended to this *Treatise on Alkali and Acid*, was another entitled the *Novum Lumen Chirurgicum*, setting forth the virtues of a certain vulnerary powder. I regret that I have not been able to find out the composition of this (for certain reasons he says he kept it secret for a ime); but, among the other virtues he claims for it, is that of being a powerful styptic. Trivial as reference to a matter of this sort may, at irst sight, appear, it will however, I think, be granted that, in connecion with the question of antiseptic treatment, the following passage is of much interest. Speaking of a wound which had been dressed with his powder, he says: "About four days after (*i.e.*, the first application), he wound was opened again to make a fresh dressing, which we found n a very good condition, and not in the least digested, or brought to uppuration; but a thin serous matter a little tinged with redness, which suppose to be discharged out of the glands and lymphatic vessels, came way, which, when it had lain some time upon the dressings, was subject to stink; but that which came fresh out of the wound was as sweet as a rose." Now, *minus* the otto of rose part of the question, which we may pass over as a bit of pardonable enthusiasm on the part of our author, there is a remarkable similarity between what he claims to be the result of the application of this powder, and that which is attributed to the use of carbolic acid. There is no evidence as to what he supposed to be its *modus operandi;* but what I wish particularly to point out is this, it is evident that *he attributed its good effects to the prevention of suppuration.* Moreover, he elsewhere in the book ridicules the system then prevalent of keeping wounds open with tents, and dressing them with stimulating applications, in order to facilitate the expulsion of peccant matters.

Such are the foreshadowings of antiseptic treatment evident in the practice of one of our profession nearly two hundred years ago.

CASE OF TRANSVERSE FRACTURE OF THE PATELLA, WITH BONY UNION.

By D. DYCE BROWN, M.A., M.D.,
One of the Medical Officers of the Aberdeen General Dispensary, and late Assistant Professor of Materia Medica in the University of Aberdeen.

The interest of the following case lies, not in the nature of the injury, which is common enough, but in the rarity with which bony union occurs after a transverse fracture of the patella.

William Wishart, a dispensary patient, aged 40, a butcher, given to drinking habits, had been unfortunate enough previously to have had four separate fractures of the leg, two in each. On coming home on the evening of December 17th, 1867, in a state of intoxication, he fell on a stone stair upon the front of the right knee. The swelling round the right knee-joint was so great that nothing in the shape of a patella, or other part of the knee-joint, could be distinguished. There was great tenderness, with much discoloration and ecchymosis. The limb was raised gently on a pillow, arnica lotion applied, and over the latter a linseed-poultice. This treatment gave considerable ease, and assisted in the reduction of the swelling. When the swelling had sufficiently fallen to enable one to handle the limb without pain, and to distinguish the parts, it was evident that there was a transverse fracture of the patella. The state of parts was as follows. The movement of the limb, as a whole, was wonderfully good. He could bend the leg at the knee, and, with a little difficulty, could raise the limb unbent for a few inches off the pillow. When the limb lay extended, and resting on its posterior surface, hardly any depression could be felt with the finger between the fragments. On bending the knee, the depression between the fragments was about a finger's breadth; the width of the depression varying as the limb was flexed or extended. When the limb was extended, the fragments lay in such close apposition that, without at all pushing them towards each other, distinct crepitus could be made out on moving the fragments from side to side. The case was seen at this time by Dr. Alexander Ogston, who satisfied himself on the above points.

By way of treatment, I first applied two broad strips of diachylon plaster, heated in hot water so as to make them lie to the shape of the parts to which they were applied. The one was placed with its middle part pressing as firmly as possible against the inferior edge of the lower fragment; the ends being then drawn tightly up, and made to adhere to the sides of the thigh; while the other piece of strapping was put in the reverse position, its middle portion pressing as firmly as possible against the upper edge of the superior fragment, with the ends pulled tightly down, and made to adhere to the sides of the leg; the two pieces of strapping thus crossing one another in a horse-shoe shape. This appliance seemed to keep the fragments in close apposition. This being followed by no additional swelling, in two days I put a pasteboard splint behind the limb, from the middle of the thigh to near the ankle, and bandaged it from the toe upwards to the middle of the thigh, making each turn of the bandage about the knee press as much as possible on the upper and lower edges respectively of the two fragments.

After a month all but two days, the bony union seemed fairly firm. I therefore put on a gum and chalk bandage, and let him get up. In a month longer, the stiff bandage was removed, the bony union being then strong. The superior edge of the lower fragment was very slightly raised above the level of the inferior edge of the upper one, which gave, at first sight, the feeling of a slight depression still remaining. On more careful examination, however, there was evidently no depression, but merely the slight difference in level just mentioned. I read the case before the Aberdeen Medico-Chirurgical Society, and brought up the patient to be seen. Those gentlemen who saw him were satisfied that the union was bony and complete.

In this case, everything was in favour of bony union; and the comparatively small space which existed at first between the fragments showed that the aponeurotic expansion from the muscles over the bone must have been either not lacerated, or only to a slight extent.

RUPTURE OF THE BLADDER, MISTAKEN FOR OBSTRUCTION OF THE BOWEL AND OPIUM-POISONING.

By Horace Dobell, M.D., etc., Physician to the Royal Hospital for Diseases of the Chest.

The case reported by Dr. Andrews in the British Medical Journal of October 24th, under the heading "Rupture of the Bladder and Enteritis", recalled to my mind one which occurred to me some years ago. As the case may be of interest in conjunction with that of Dr. Andrews, I have extracted the following nearly *verbatim* from my case-book.

On Thursday, June 7th, 1860, I was requested by a surgeon in great haste to see Mr. R., as he thought him dying from opium administered in treatment. I learnt that, during the last thirty-six hours, the following had been given: twenty minims of tincture of opium, followed by sickness; a grain of solid opium, followed by sickness, but possibly retained; a drachm of tincture of opium in an enema, only partly retained. After a careful examination, I gave the opinion that the patient was suffering from uræmic poisoning, and would shortly die. He died half an hour afterwards. The account I obtained from the surgeon was as follows.

On Saturday night last, Mr. R. was in his usual health, sat late at home drinking gin and water with some friends, took more than usual, and was slightly intoxicated. He got up to go to bed, stumbled, and fell with his stomach on the arm of his chair. He groaned at the moment, but quickly said, "It is all right, I am not hurt;" walked into the adjoining room, and went to bed. He was asked how he was after going to bed; and he said again, "All right," and went to sleep. The bowels had acted before the fall. Next morning (Sunday), he felt ill; he had sharp pain in the umbilical region, and said that he felt he could not strain to get the bowels open; and they did not act. Some castor-oil was given, but did not act; and, after some time, he brought it up. The vomiting continued after this; and towards night, the patient, finding that he had passed no urine all day, sent again for his doctor, who passed a catheter, and drew off a very little. This was slightly tinged with blood, but so slightly that it was thought to be only due to the passage of the catheter; and the absence of urine in the bladder was supposed to be accounted for by the repeated vomiting. Another dose of castor-oil and a calomel and colocynth pill were given; but the bowels did not act. There was very little pain in the abdomen, the principal symptoms continuing to be a feeling that the patient could not strain to get a motion, and that he wanted some assistance to make the bowels act. An enema of soap and water was given, which brought away a little pale fæcal matter. A larger one was given, with similar result; neither was attended with any unusual discomfort. The patient continued constantly sick, not retching with any force, but eructating everything, even water, a few minutes after swallowing it. The sense of inability to strain disappeared after the second enema, and a very small quantity of urine was passed naturally while at stool. The catheter was used night and morning, and two or three ounces of urine removed each time, without any blood after the first time. On Wednesday, the day before death, no natural action of the bowels had occurred since the fall; the eructation of everything taken into the stomach continued. There was very little pain, and that was about the umbilicus, and rather to the right of it, and extending up towards the hypochondrium. The region of pain was slightly dull on percussion. The whole abdomen was slightly distended, but soft, and not tender, except in the region of pain; and no part of the alimentary canal was morbidly distended by either solid or gas. The breathing was very quick and thoracic; pulse feeble, 120, not sharp or hard. The patient was rather faint, but clear in intellect. He had had no sleep since the accident. He thought he could sleep but for the sickness and "fidgety sort of pain" in the bowels; but the pain was not paroxysmal, and not enough of itself to prevent sleep. It was now considered by the surgeon that some serious obstruction in the bowels had been caused by the fall; that the suppression of urine was due to the constant ejection of fluid from the stomach; and it was decided to do nothing but keep the patient quiet, give opiates, use the catheter if required by distension of the bladder, and continue enemata. It was early next morning that I was called in, half an hour before death, as stated in the commencement; when I obtained the foregoing history of the case.

Post Mortem Examination, the following morning.—The abdominal viscera were healthy. There were no signs of inflammation; and, on careful examination from the stomach to the rectum, no obstruction was found in the intestines, which were nearly empty. The cæcum was adherent to the iliac fossa by some bands of old lymph. There were no signs of recent action. The abdomen was full of very high coloured fluid, which had a very strong smell, but more peritonæal than uræmic. On passing the hand into the pelvis, in search of the bladder, none could be felt; but the finger went into a fossa at the entrance to the urethra. On careful examination, the bladder was found completely shrivelled up round the entrance to the urethra, with a rent two inches long in the anterior free portion of the fundus. The rent was quite patent. There were no signs of inflammation either in or about it, but considerable purple ecchymosis in the coats of the bladder leading from the rent.

Although suppression of urine is a constant occurrence in obstruction of the intestines high up, and to a certain extent of all other diseases attended by continued sickness; and although the concurrence of inaction of the bowels, obstinate sickness, and pain, following a twist or blow to the abdomen, might fairly lead to the suspicion of intestinal obstruction; and the detection of some amount of dulness about the right upper portion of the abdomen, and the absence of any pelvic pain, certainly complicated the diagnosis in this case; still I think that the unusual freedom from *tormina*, and the absence of any fæcal odour in the vomited matters from first to last, together with the character of the accident—viz., a blow from a prominent object on the abdomen, after sitting for some hours drinking—might have suggested a different diagnosis. And the practical hint may be taken from the case, that, in cases of suspected obstruction of the intestines, it is wise to wait for distinct *painful peristaltic action* before beginning to administer opium; and it is a good illustration of the importance, in all cases of obscurity, of *reconsidering* the whole of the circumstances, signs, and symptoms, at each visit.

CLINICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

FRACTURE OF THE SKULL, WITH ABSENCE OF SYMPTOMS.

By J. T. Hester, F.R.C.S., Hastings; late Senior Surgeon to the Radcliffe Infirmary, Oxford.

The "remarkable case of fracture of the skull, under the care of Mr. Charles Moore," at the Middlesex Hospital, reported in the Journal of October 24th, recalls one to my mind still more remarkable. I did not see the patient till after death.

A young lady, eighteen years of age, was thrown out of a carriage, which, in consequence of the horse running away, was dragged over a heap of stones. She immediately rose, and ran two miles after the carriage, being anxious to ascertain the safety of her father, who was in it. She returned home, and appeared so little the worse for the accident, that she objected to any treatment. She at last, however, submitted to be bled, that being the practice of the time (thirty years ago). On the following day, as she had a headache, a few leeches were applied. Feeling a little faint, she asked to be lifted up in the bed; and, on being so, instantly fell back dead. On the next day, I was requested to assist at the *post mortem* examination.

The skull, which was the thinnest I have ever seen (light could be seen through it), was literally split into two halves by a fracture which passed through the occipital in front and behind the foramen magnum, dividing the parietal, passing through the frontal, ethmoid, and sphenoid bones, without the slightest depression or starring in any part. I need hardly say there was no diploë. Between the dura and pia mater, there was a very considerable extravasation of blood on the upper surface of the brain, but none at its base. I was led to account for the entire want of symptoms of pressure, from the peculiar nature and extent of the fracture allowing the cranium to expand. The most extraordinary parts of the case are, that such a fracture could take place under the circumstances, and that the patient was not stunned by a fall which could occasion it.

I have no notes of the case, but write from memory; but the facts of it are indelibly impressed on my mind.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 14TH, 1868.

THE LIST OF MEMBERS.

The List of Members, which it is our agreeable duty to publish in this issue, is one of unexampled importance. We had last year the satisfaction of announcing an accession of five hundred new members, an addition to our numbers such as had never before occurred. We have this year the pleasure of intimating a still greater accession; we believe about seven hundred new members have been enrolled.

In return for the annual guinea subscribed to the Association, each subscriber now receives a weekly journal, which, by universal testimony, is admitted to be the equal, in all respects, of those which, being published by trade enterprises, are sold at the annual price of thirty shillings. This is only one material result of co-operation; but the mere act of association confers powers and privileges of the highest order upon the members of the Association. They are powerful for all good professional and social ends; they are enabled to urge forward questions of professional organisation; to help the cause of education, and to stimulate sanitary legislation; to influence the Government in the treatment of the public medical services; and to affect public opinion and legislative action on all the questions which influence medical interests, or in which the medical profession are specially qualified to advance the public good. It is difficult to overrate the vast and growing moral influence of the Association in matters of professional ethics, and in questions such as those of professional remuneration. The British Medical Association is now a great power, not only in the profession, but in the state; and, in striving to make this Journal an organ in every way worthy of it, we hope to succeed also in aiding to enlarge the bounds of the Association, until it shall be the exception for any professional man in the Three Kingdoms not to belong to it. *In this endeavour, we earnestly ask for the assistance of all our Associates. Let every one bring the subject before his neighbours and friends during this month, and forward some names of members for election.* We shall be happy to supply applicants with forms for election, or with copies of the Journal for circulation.

THE DIRECT REPRESENTATION OF THE PROFESSION IN THE MEDICAL COUNCIL: AN APPEAL TO THE PROFESSION.

The manifesto of the Committee of Council of the British Medical Association, which we last week published, urging the claims of the profession to direct representation in the Medical Council, is a document which will hold an important place amongst medical state papers. It has, we believe, been received with great satisfaction by the mass of the profession; and will undoubtedly exert an important influence in modifying the further progress of the organisation of the profession. The course which the Medical Council adopted last session was unfortunate for itself. Instead of openly facing the admitted wishes of the profession in this matter, and searching into the defects of its own composition, that body decided to give the question the go-by, and declined to take it into serious consideration. Nevertheless, it is clear that, except within the Council, there is hardly any difference of opinion on the subject of the vices of its constitution. The most crying evil of the present state of medical education and examination, is the great number and open competition of the examining bodies. The obvious effect of such competition is to lower the standard of education and diminish the severity of tests. Nominally, the numerous standards of the various examining boards are being brought up to very much the same height, for the same classes of licenses to practise. Practically, there are known to be vast differences; and, in the face of a large number of rejections at the public service examinations of licensed practitioners whose license only covers very crass professional ignorance, it cannot be pretended that the Medical Council has satisfactorily performed its duty to the public or the profession in respect to medical education. This, however, is the characteristic function which it accepts as of greatest moment, and that upon which it has occupied itself for many years, with a vast expenditure of eloquence and of money. Nor can it be said that this shortcoming is in any sense the fault of the members, or the result of any want of earnestness or ability. The nominal roll of the Medical Council and the perusal of the debates authoritatively contradict such a statement. The Medical Council is, indeed, singularly rich at this moment in men versed in educational philosophy, and anxious to promote a high standard of medical and scientific instruction. If the Medical Council has failed to take any sufficiently large grasp of the work set before it, of reorganising medical education and examination, it has been because so large a proportion of that body represent the very elements which require readjustment. They represent the static force of corporations; and no great dynamic effort can be expected from them. It must come from without; and the external forces must be felt, from which alone can be expected the necessary amalgamation of corporations, simplification of degrees, and abolition of the lowering influence of competition in the sale of diplomas. The representatives of corporations and universities represent the moderating influence; but who are they in the Medical Council who represent the impelling power? That power can come from the profession only; and from the profession not marshalled in divisions, and standing in separate sections as members of one college or another, but as registered practitioners careless of colleges or of universities, except as educational instruments; not heedful of one body or another; willing, if need be, to destroy, or, if it seem good, to build up; but, above all, returning members who shall come back to it from time to time from the Medical Council, as the present members do to their corporations, and give an account of their stewardship. The representatives of a corporation must not stand idly by, and see its revenues diminished, its *prestige* assailed, its probable numbers diminished. The representative of the profession will have no such special charge; he will look only to the welfare of the general body; to the simplification and the improvement of its organisation, and of its relations with the public. The statement, that the Medical Council was created not to protect professional but public interests, far from being an answer antagonistic to the views we express, is only another mode of advocating them. The Medical Act proposes to protect the interests of the public, first, by improving the education of the whole mass of the profession, and providing that every license shall really carry with it an unquestionable fitness to practise; and, secondly, by enabling the public to distinguish qualified persons from unqualified pretenders falsely using medical titles. It cannot be asserted that the Medical Council has yet been successful in carrying out either intention of the legislature. Medical education is in an extremely unsatisfactory state at this moment. In some practical respects, it may be doubted whether it is not even more so than it was at the time that the Medical Council was created. Medical licenses do not afford any certainty of fitness to practise; nor is it at all likely that they can be made to do so, while the regulating Council retains its present composition. The Medical Act wholly fails to enable the public to distinguish between qualified and unqualified pretenders; and the Medical Council has failed, notwithstanding strenuous efforts, to induce the Government to amend it. More than this, there is good reason to believe that the only available occasion to induce the Government to act in the matter was lost by a jealous refusal to register the Bachelor of Surgery degree of the University of London—due to the unconscious bias of corporate interests. This was subsequently rescinded, but it awoke the Government to the danger of entrusting an absolute power of any kind to a body so largely composed of elements in which particular interests could hardly fail, from time to time, to overpower the public good. It would be difficult to name any body which includes a larger proportion of men of eminent intellectual capacity and moral elevation. But it is impossible to look back upon the decennium of sittings, which, as we lately showed, have cost the profession some twenty thousand pounds, without feeling that they have accomplished marvellously little; that there is an innate source of weakness and vacillation in their composition; and that the costly combats, in which successive members have defended the interests and the reputation of their corporations, have been very often as little in the interests of the public as of the profession.

It would be wrong to omit any reference to that useful work, the *British Pharmacopœia;* but that is obviously a work for which, although the Act was required, the Council was not; and a much less ambitious machinery would, as the experience of the second edition proved, have been even more efficacious. We are equally far from ignoring the useful influence of the Crown nominees. They are apart from the influences of particular corporations, and are in a better position than other members to be freed from conscious or unconscious bias, and to take broad views conducive solely to the general good. But they want the inspiring force of popular election; they want the momentum of a great constituency; they lack the impulse of the outer twelve thousand. No one would wish to lessen or to remove the Crown nominees. But their presence is no answer to the claim of the profession to be represented in that Medical Council, which is laying down laws for the education of those who are to fill the ranks of medical practitioners, and which mulcts every one of them in a handsome registration fee, but has not yet succeeded in making registration respected or valued by the public. The appeal now lies, not to the Medical Council, which has pushed aside the appellants and closed the doors upon them, but to the legislature, to the Government, and to public opinion. The President of the Medical Council asked the President of Council of our Association whence came the demand for representation, and in what the Medical Council had failed. The answer is—without slight to the Medical Council or disregard of the eminent merits and virtues of its members—that the claim comes from the great body of our Association, which counts near four thousand members, and which is at one with the great mass of the profession on this subject; and that the Medical Council has failed to make degrees in medicine equivalent to proofs of fitness to practise; that it has not dealt with the mischievous competitions of corporations and the competition of degrees; that it has failed to secure a hearing for the profession in Parliament, and to protect the public and profession from the false pretences of unlicensed quacks. The profession claims to have a direct share in its deliberations; it asks to give its aid, to lend its impulse, to infuse a part of its own vitality into the Medical Council. It will ask this publicly and earnestly. Every man should raise his voice in his own locality, and bespeak the assistance of his own member. So many voices, making so reasonable a demand, will, we think, be heard; and the question of the reconstitution of the Medical Council, now a very costly and not altogether an efficient body, may be rapidly and advantageously transferred from Pall Mall to Downing Street or St. Stephen's.

SIR DOMINIC CORRIGAN'S CANDIDATURE.

The progress of events during the last week has tended to complicate greatly the circumstances of the election, and to disunite the profession on the subject to a very considerable degree. The great importance of the Irish Church question, and the influence which it must have upon the minds of a large body of the electors, were apparent from the first. Sir Dominic Corrigan has not felt at liberty to take a neutral part on this question; and, in the presence of his very energetic expressions of political sentiment, the fear which we expressed last week, that a large number of medical men will not look at his candidature solely from a professional standpoint, has been very fully realised; in the first instance, by the refusal of the Irish Medical Association to taken any part in his behalf; and, in the second instance, by the publication of a document which, while admitting the desirability of medical representation in Parliament, declares the inability of the subscribers to support Sir Dominic Corrigan's candidature, in consequence of the pledge which he has given on the Irish Church question. Among the names, we recognise almost if not all of the officials of the Colleges of Physicians and Surgeons, of the Medical School of the University of Dublin, and of many who have filled the chief offices in these Colleges. We meet with the names of Churchill, Porter, Macnamara, Collis, Beatty, Sinclair, Richardson, Croker, Kennedy, Barker, McClintock, Wilmot, Hargrave, Johnston, Adams, Tufnell, Labatt, Jameson, Wharton, Duncan, Benson, Morgan, Irvine, Barton, Dwyer, Quinan, Owens, Sawyer, McDowell, Hamilton, Leet, Minchin, Haughton, Smith, Moore, Hudson, Smyly, Geoghegan, Ringland, Croly, Walsh, and a host of others, equally respected, and many of them equally well known as writers and sound practitioners. Sir Dominic, on the one hand, has conscientiously avowed and manfully maintained his strong opinion on the political question of the day, and has refused to set aside that opinion to gain the votes of his medical brethren. Those who sign this document, on the other hand, feel too strongly on this great national question to set aside their convictions even for such an acknowledged professional gain as Sir Dominic's presence in the House of Commons. We could have heartily wished to see a means of common understanding, which would have secured for so eminent a medical candidate as Sir Dominic Corrigan the undivided support of his profession; but the circumstances of the moment are adverse. The fact, however, that a large proportion of the subscribers to his election-fund are stated to be men who do not profess to agree with his political opinions on the Church question, indicates the force of that professional feeling to which it is our duty firmly to appeal in his behalf.

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On January 1st last, there were 1,040,103 paupers in England and Wales; of these, 43,158 were insane—namely, males, 19,033; females, 24,125.

Mr. W. Silvester, the Mayor of Stafford, has contributed £100 to the funds of the General Infirmary, instead of giving a public dinner during his year of office.

At a Special Board of Governors of the General Hospital, Birmingham, held on November 6th, Dr. Balthazar W. Foster was elected Physician, and Mr. W. P. Goodall Surgeon, to the Hospital, to fill the vacancies occasioned by the resignations of Dr. G. F. Evans and Mr. D. W. Crompton.

The first number has appeared of a weekly record of scientific progress at home and abroad, called *Scientific Opinion*. It is the announced intention of the conductors of this journal to render it not only a focus into which is gathered the multitude of isolated facts and opinions scattered throughout the range of current literature, but also to constitute it the advocate of the cause of science and the interests of scientific men in England. The number before us is one of great and varied interest.

We observe that our able associate, Dr. Septimus Gibbon, is specially nominated by the Committee of Selection for the City Gas Examinership. Dr. Gibbon is known as an able chemist and skilled mathematician, versed in optical science, of which he gave proof at the universities and in his subsequent career. He is highly fitted for such an office; and the nomination will, we trust, be sustained by the Corporation, as it is justified by his attainments, and by the opinion of his professional brethren.

AT a meeting of the Eastbourne Local Board on Monday last, a memorial was presented from a large body of the ratepayers, complaining of the impregnation of the houses by sewer-emanations, in consequence of imperfect ventilation. Dr. Jeffery and the Rev. T. Pitman referred to the large number of fever cases which had recently occurred in Eastbourne, and advocated the adoption of charcoal ventilators. The memorial was referred for consideration to the Drainage Committee.

THE Visiting and General Purposes Committee of the Birmingham Workhouse received last week a report from a Subcommittee on Vaccination, recommending that notice be given to the present medical officers to terminate their present vaccination contracts, and that a single officer be employed to attend exclusively to vaccination. It was, howveer, thought by the Committee that it would be unfair to call on the present medical officers to resign their offices until the end of the term for which they were engaged; and the report was therefore adopted, with the exception of that part in which the officers were called on to resign.

THE INJURIES AT THE RECENT EXPLOSION IN WATERLOO-ROAD.

THE three cases which remain in St. Thomas's Hospital from the explosion in the Waterloo Road are going on favourably.

THE ROYAL FREE HOSPITAL.

WE are very glad to learn that, as one of many good consequences of our report on the Royal Free Hospital, and of the comments which it drew forth in the press generally, a Medical Committee has been formed to advise upon the professional business of the hospital. We observe, also, that a new Secretary is to be appointed; and we understand that the intention of the governors is to put into office an active person, who will directly and personally supervise the condition of the wards.

PROMOTION IN THE MEDICAL SERVICE OF INDIA.

HER Majesty's Government have determined that the regulation, that "a surgeon of less than twenty years' full-pay service may be promoted to the rank of surgeon-major for distinguished service", shall be held applicable to the Indian Medical Service. It is to be remembered that this promotion is not brevet, but substantive, and that it will carry with it the advantages of increased pay, etc., which appertain to the rank of surgeon-major. This decision has been formally communicated to the Government of India.

THE CROWN MEMBERS OF THE MEDICAL COUNCIL.

AT the Court at Windsor, Nov. 7th, 1868, present, the Queen's Most Excellent Majesty in Council, Her Majesty, by and with the advice of her Privy Council, was pleased to nominate, for the period of five years, Edmund Alexander Parkes, M.D.; Richard Quain, M.D.; Henry Wyldbore Rumsey, M.D.; Robert Christison, M.D.; and William Stokes, M.D.—to be Members of the General Council of Medical Education and Registration.

PREVENTION OF CONTAGIOUS DISEASES.

SIR PATRICK GRANT, the Governor of Malta, gives most valuable information respecting the effect of sanitary restrictions in that island, in an official letter to the Home Government, obtained at the request of Mr. Berkeley Hill, Honorary Secretary to the Association for the Prevention of Contagious Diseases. His Excellency reports that, up to 1861, much contagious disease prevailed among the troops in Malta. An ordinance was passed in that year to check it, which occasioned "an immediate diminution of these diseases to almost an unprecedented extent; and it has continued so up to the present time" (July 1868). Sir P. Grant is convinced "that large or small bodies of men should be personally examined before being granted access to an isolated community, and he will enforce a strict adherence to this well advised principle." The essential conditions of the ordinance of 1861 are: 1, regular examination twice monthly, with the power of examining any person complained of; 2, the detention of the diseased while liable to communicate their disorder. The yearly average examined in Malta has been about 100; and the examining physicians have remarked that some women are repeatedly sent to hospital, while others remain constantly healthy. The number of cases of disease, not individuals—for, as before said, oftentimes the same woman is admitted over and over again—has steadily decreased; in 1861 it was 85, in 1867 it was only 32. Corresponding diminution has attended the admissions for contagious disease among the troops. Mr. Inspector-General Paynter says that, in 1860, before the regulations were enforced, 916 men were sent to hospital; in 1861, the number dropped to 689; and in 1862, when the regulations had been enforced a year, the number fell to 340. To the present time, the annual number has been constantly under 300; this includes, also, an average of 50 men who are diseased before they land from England. The average strength of the garrison is over 5000 men; and many strangers call at the island in the course of the year. A few English camp-women who follow the regiments manage to evade the regulations, from whom much of the disease which still remains is spread. In the navy, the results of sanitary restrictions are still more complete, as sailors, being comparative strangers, cannot evade the regulations in the way the soldiers do. The average naval force in port at Malta is 3800; and the number of men who land in the year reaches 8000; but Dr. Domville reports that, during the last two years, only six cases of disease contracted in the island have been admitted into the naval hospital.

GRESHAM LECTURES.

IN the lectures at Gresham College, the Professor of Physic, Dr. E. Symes Thompson, has recently given expression to those views on general, scientific, and medical education, which have been often advocated in our columns, and of which we hold the realisation to be essential to progress. Education ought to represent the existing state of knowledge, and must be progressive. When science had no existence, and there was no modern literature to speak of, classical training was the best that could be given. Since the time of Milton, most of our great literary lights have insisted on the evil of confining the mind of youth too closely to classics. To perpetuate such a plan in these days of progress is a strange anachronism. "In an age full of modern artillery, we turn our boys out to do battle with the sword and the shield of the ancient gladiator" (Huxley). We do not want every man to be an encyclopædia—

> "A bookish blockhead, ignorantly read,
> With loads of learned lumber in his head."

But every educated man should know how to think. Thinking can only be learned by practice; and that subject is best which most stimulates thought. Contrast the zeal and avidity with which most boys throw their whole minds into natural science, with their languishing inefficiency at Greek and Latin; and we cannot doubt in which study their observation, acuteness, and accuracy are best developed; and with these (which are just the qualities useful in the business of life), a marked increase in grasp and penetration has been observed in those schools in which science has already found an entry. The elements of natural science should form an essential part of all training. The so-called "liberal" education of the day is anomalous and incomplete. The observing powers are not educated in our schools. Discursiveness is encouraged, rather than concentration. But, when facts take the place of words, truths are learned from observation, not from the master or textbook; opinions are brought to the test of experience; a boy finds he can form his own conclusions, and judge of the views of others. Notwithstanding all that has been urged for two centuries on the subject, schools will not yet accept the conclusion that they need change. Masters can only teach what they know, and in the same manner in which they learned it themselves—"a system appealing more to the seats than to the brains of the schoolboy." A teacher should be a first-rate fellow in mind, feeling, and energy, with point and heartiness intellect—not, as has been too often the case, a worn-out broken-dow man, who has failed in business and everything else he has put his han to. If the parents of children insist on the introduction of science-teaching, our schools will supply the necessary teachers. The value of such inducements as would thus be afforded by our public schools to take to science as a profession will be very great. In England, the posts now open to men of pure science are extremely few and meagre. Lectureships and examinerships are chiefly in the hands of corporations, and the loaves and fishes are appropriated by the members themselves. Scientific studies are "unfairly handicapped endowments" (Lowe), and do not pay either in or out of the universities. The value of a good central academy, where science could be taught to all comers by first-rate teachers, with such salaries as would afford encouragement to first-class men, would be immense. Professor Masson (*Macmillan*, Oct. 1867) has ably advocated the consolidation and aggregation of the higher teaching bodies of London, to form either a reformed London University or Academy of Arts and Sciences; thus avoiding the multiplicity of scientific courses of lectures at each medical school. Chemistry and botany might here be better taught than by the medical staff of hospitals. The rudiments of these sciences should be taught at all schools, and a central school of science would supply the essential requirement. If Gresham College had been managed with the breadth of view the founder intended (for Sir Thomas Gresham meant it to be the University of London), it would doubtless long since have been the required centre. Even now, by a broad-minded policy, this ancient foundation might be expanded into the central academy so loudly called for. The University of London is but an examining and degree-conferring body, and has no provision for lecturing or for education proper. Why not make these professorships the nucleus? Some subjects, like chemistry and physics, require the entire devotion of the professor, who can do nothing else; whereas, for medical teaching, we want that vigorous practical spirit brought from the outer world by the teacher to his audience—a spirit which could not be developed in the cloister atmosphere of a residential fellow. General science should be acquired at general schools, special medical training at medical schools. How far science-training in school should be acquired from voluntary attendance at lectures, and how far from disciplined and compulsory work, it is not easy to decide. Both should be combined as much as possible. Printers' ink should be eschewed, as apt to breed disgust. Botany and chemistry must be learned by the eye and ear, and, instead of putting an extra strain on the mind, serve as an excellent relaxation from verse-making and mathematics.

VERDICT OF MANSLAUGHTER AGAINST A SURGEON'S ASSISTANT.

MR. JOHN WILSON, of Pelton, Northumberland, has been found guilty of manslaughter, by a coroner's inquest on Ann Johnson, of Onston, who died in child-birth. The following is a copy of the finding of the jury. "We are of opinion that Ann Johnson died on Tuesday, Nov. 3rd, from a shock to her nervous system and convulsions, produced by a piece of membrane remaining in the womb, and by the tearing of the mouth of the womb, after childbirth, which was caused by carelessness, neglect, and ignorance on the part of John Wilson, of Pelton, and our verdict is manslaughter."

DR. HUMPHRY SANDWITH'S CANDIDATURE FOR MARYLEBONE.

SEEING that neither of the other candidates for the borough of Marylebone had expressed any opinion upon the important questions of public health, poor-law medical relief, and others affecting the interests and relations of the profession and the public, it was thought desirable that Dr. H. Sandwith should have an opportunity of expressing to the medical electors his views on these subjects. On Wednesday evening a conference was held, at which it was intimated that upwards of one hundred of the leading medical electors of the borough had, within twenty-four hours, intimated their intention of supporting Dr. Sandwith, including Dr. Walshe, Dr. Quain, Dr. Head, Dr. Maudslay, Dr. Anstie, Dr. Henry Lawson, Dr. T. H. Greene, Dr. Broadbent, Dr. Ridge, Mr. Acton, Mr. Weedon Cooke, etc. Mr. Ernest Hart was called to the chair, and, in the course of a long discussion, Dr. Sandwith announced his intention, if elected, to support the amendment of the Medical Act in such a manner as to protect medical titles. He would advocate the direct representation of the profession in the Medical Council; he thought the appointment of Poor-law medical officers should be for life; he considered their remuneration inadequate, and was strongly of opinion that drugs should be paid for separately, and he would energetically support any measure to provide superannuation for medical officers, as for others, in the poor-law employ. In respect to sanitary legislation, he was of opinion that a consolidation is needful of the government departments of health, and would desire to see a full inquiry by a government commission, preliminary to a revision of the sanitary laws. A vote of confidence was carried unanimously, and it was resolved that Dr. Humphry Sandwith's candidature was deserving of the warm and unanimous support of the medical electors of the borough on professional grounds.

PROSECUTION UNDER THE MEDICAL ACT.

AT the Petty Sessions, Worcester, on Thursday, October 29th—present, the Rev. W. F. Raymond, Rev. A. James, Sir T. E. Winnington, Bart., M.P., and Joseph Jones, Esq.—Mrs. Mary Harriette Johnson, of Mamble, charged Mr. William Whalley, of Bayton, "that he did, on the 11th day of March last, at the parish of Pensay, unlawfully, wilfully, and falsely pretend to be, and did take and use the title of a doctor of medicine, implying that he was registered under the Medical Act." Mr. Tron appeared for the complainant; and Mr. Saunders for defendant. Edward Lipscombe, Registrar of Births and Deaths for Martley District, produced a certificate of the death of Jane Morris, signed William Whalley, M.D. Mrs. Johnson said the defendant lived at Clows Top. He went there about September 2nd, 1867. He was with me eight weeks previously. He has been practising as a surgeon at Clows Top. He has "Dr. Whalley" on his door. I have seen him write, and received letters from him. The certificate produced is in his handwriting. In cross-examination, Mrs. Johnson said, when Mr. Whalley came to her, she asked for his diplomas, and he said he had left them behind. He said he was a surgeon, apothecary, and licentiate in midwifery. The *Medical Register* was produced, but the name of William Whalley, M.D., did not appear in it. Defendant was fined £5 and costs. Mr. Saunders applied for a case for the opinion of the judges, which was granted.

THE MEDICAL TEACHERS' ASSOCIATION.

THE annual meeting of the Medical Teachers' Association, for the election of officers and other members of the Council for the ensuing year; to receive the Treasurer's report; to consider the desirableness of changing the day of meeting from Monday to Friday; and to receive and consider the Report by the Council of the Association, "on the Present Obligatory Conditions of Study for the Medical Profession, and on the Constitution and Relations of Medical Schools", will be held in the Board-room of the Middlesex Hospital, on Monday, November 16th, at 8 P.M. We have already called attention to the great importance of this report; and no doubt a full meeting will be held to consider it. The following is the list of officers and other members of Council nominated for 1868-9. *President*—Sir William Jenner, Bart., M.D., D.C.L., F.R.S. *Vice-Presidents*—Campbell de Morgan, F.R.S.; W. Allen Miller, M.D., D.C.L., F.R.S. *Treasurer*—Francis Sibson, M.D., F.R.S. *Secretaries*—Robert Bentley, F.L.S.; Bernard E. Brodhurst. *Elective Members of Council*—Francis E. Anstie, M.D.; Richard Barwell; E. Headlam Greenhow, M.D.; Alexander W. Williamson, Ph.D., F.R.S. *Representative Members of Council appointed by the Schools: Charing Cross*—F. W. Headland, M.D.; A. J. Pollock, M.D. *King's College*—G. Johnson, M.D.; J. S. Wells. *London*—A. Clark, M.D.; C. F. Maunder. *Middlesex*—E. H. Greenhow, M.D.; T. W. Nunn. *St. George's*—J. W. Ogle, M.D.; T. Holmes, M.A. *St. Mary's*—C. Handfield Jones, M.D., F.R.S.; E. A. Hart. *St. Thomas's*—J. S. Bristowe, M.D.; S. Solly, F.R.S. *University College*—J. R. Reynolds, M.D.; J. Marshall, F.R.S. *Westminster*—A. Dupré, Ph.D.; C. Holthouse.

THE MEDICAL SOCIETY OF LONDON.

AT the last ordinary meeting of this Society, Mr. Thos. T. Griffith of Wrexham was proposed as a Fellow. This gentleman, in joining the Society, presented to the library the following valuable books; namely: 1. *The General Practise of Physicke*, by Christ. Wirtzung, in German—translated by Jacob Mosau; date 1617. 2. *The Breviarie of Health*, by Andrew Boord, Doctor of Physick, an Englishman; date 1587. 3. *A briefe Treatise wherein are to be found divers good and speciall helps for many Diseases*, by Walter Cary; 1587. 4. Guilielmi Harveii, *Exercit. Anatomica de Motu Cordis et Sanguinis Circulo;* 1661. 5. *Aphorismi Hippocratis*, CIC.ICCLXXV. 6. *Galeni Commentarius*, ii, MD.XXXVII. Also, an engraving of Harvey, by Houbraken, date 1739; and a mezzo-tinto portrait, three-quarters length, of Dr. Jenner.

REPORTS OF THE HEALTH OF THE NAVY.

IN spite of the many drawbacks that the medical profession in the navy labours under, there is proof, in the lately issued *Statistical Reports of the Health of the Navy for* 1865 *and* 1866, that the zeal of its officers survives. These Reports are very creditable to the service, and we trust that the Admiralty will reprint them in sufficient numbers to supply every ship in commission with a copy. Our contemporary, the *Edinburgh Medical Journal*, has called attention to this strange defect of management. "Our surprise certainly was great on learning from one naval medical officer that he thought himself fortunate in having the reversion of a copy from a friend, an M.P.; and from another, that his only chance of seeing the book that he valued highly as a guide on foreign stations, was, when at home, through the kindness of an editor of a medical periodical." On inquiring into the reason of this, we are told that the Reports of the Health of the Navy are printed solely for the information of the House of Commons. We certainly agree that much more good would be derived from their circulation on the foreign stations where the diseases reported on are seen, by which means new medical officers would be put in possession of the experience and views of their predecessors.

REPORT ON CHOLERA BY THE INDIAN GOVERNMENT.

WE have received from Dr. Murray, Inspector-General of Hospitals in India, a paper prepared by him, and containing a series of queries on Cholera, which has been sent by the Government of India to all the subordinate governments, calling on them to obtain answers from the Indian and British medical administrative officers on the subject. The questions are put more in a suggestive than in a directly interrogative form; and the replies are to be founded on the personal experience of the medical officer answering. The whole mass of material will then be submitted to Dr. Murray for report. Prepared, as it will be, by one who is eminently suited for the task, and who has done more than any other in advocating and carrying out the sanitary and precautionary measures which have saved, and will save, so many lives in India, and containing, as it will, the opinion of so many men thoroughly conversant with the disease, the report will, we doubt not, be of the greatest interest and value. As it is important that everything that is known on the subject should be placed at the disposal of the Indian Government, we shall forward the paper to the Secretary of the Epidemiological Society, in the hope that the members may be able to furnish any additional information, and to increase still more the value of the report.

SCOTLAND.

A MOVEMENT, supported by the Duke of Buccleuch, the Earl of Dalkeith, and others, is on foot to raise subscriptions towards the erection of new buildings for the Dumfriesshire and Galloway Royal Infirmary.

TWO candidates have been named for the Rectorship of Glasgow University. The Conservatives have put forward Lord Stanley; the Liberals, Mr. Robert Lowe.

AT a meeting of the General Council of Glasgow University, it was reported by the Subscription Committee that they had received, since last meeting, sums amounting to £6558; making a total of £102,508 subscribed up to this time.

THE WATER-SUPPLY OF EDINBURGH, LEITH, AND PORTOBELLO.

IT has been resolved, by the Town Councils of Edinburgh, Leith, and Portobello, to petition Parliament for permission to obtain the use of St. Mary's Loch for the water-supply of these towns. The loch is nearly forty miles distant; and the estimated cost, including the purchase of the present works, is about one million.

REPRESENTATION OF ABERDEEN AND GLASGOW UNIVERSITIES.

DR. KEITH, the Senior Surgeon to the Royal Infirmary, Aberdeen, writes to us:

"In article on Lunacy and Crime, in your paper of Saturday, the 7th current, you incidently state that Mr. Gordon is pretty sure of election for the Universities of Glasgow and Aberdeen. I have no wish to make your JOURNAL a cockpit, in which the two great political parties should fight their battles over again; but, as this statement must, I think, have been made on incorrect information, I wish to state that the impression here, at Mr. Gordon's stronghold, is, that Mr. Moncrieff is to win the day; and it is for the interest of the medical profession that he should do so. He has done more for education than any man in Scotland; and the medical profession in this country are indebted to him for the great improvements which recent legislation has conferred upon them. Mr. Moncrieff is prepared to do still more for us; and I trust the medical profession will so rally round him as to make a claim upon him to remember theirs amongst the many interests which will be forced upon his attention as our future Lord Advocate."

THE EDINBURGH UNIVERSITY CLUB.

THE quarterly dinner of this Club was held on the 11th instant, in St. James's Hall. Sir William Fergusson, Bart., occupied the chair, supported by Dr. Graham Balfour, F.R.S., and Dr. Sieveking, as croupiers. There were present thirty-nine members and twenty-four guests. Mr. Campbell Swinton, Dr. Richardson, F.R.S., and Dr. Prosser James were amongst the company as the invited guests of the Council. Professor Playfair was unfortunately unable to leave the duties of his chair in Edinburgh.

THE ROYAL INFIRMARY, ABERDEEN.

WE have received during the last week copies of correspondence relative to the introduction of homœopathy into the Royal Infirmary of Aberdeen by Dr. Reith. The circumstances connected with this controversy, and especially the deep and general interest excited by Dr. Reith's papers in the *Edinburgh Medical Journal*, impose upon us the duty of weighing well both sides of the question before pronouncing our opinion. What strikes us *primâ facie* as remarkable, is the fact that so many months should have elapsed since Dr. Reith's experiments and opinions were given to the world, before his colleagues discovered anything objectionable either in the one or the other. The subject has been brought before the governors of the Infirmary at a full meeting, and they have adjourned its consideration till a future occasion.

IRELAND.

ULSTER MEDICAL SOCIETY.

THE first meeting of this Society for the winter session was held on November 2nd, at half-past seven o'clock, in the Library, General Hospital—Dr. Cuming, President, in the chair. The President delivered an eloquent address.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

FOR the first time, the performance of operations on the dead body is being required in the examination of this body. The addition has caused no lessening of candidates, for they are above last year's average. At the preliminary examination just concluded, sixty-one out of sixty-nine candidates qualified.

THE CORRIGAN ELECTION FUND.

The medical subscription to the Corrigan Election Fund approaches £1,200, a large proportion of which has been subscribed by those opposed to his political views.

QUEEN'S COLLEGE, CORK.

Mr. Samuel Hawkes has obtained the first scholarship of this year in Medicine, after a sharp competition.

DUBLIN QUARTERLY JOURNAL OF MEDICINE.

Dr. G. H. Kidd having resigned the editorship of this valuable periodical, he has been succeeded by Dr. James Little, who for some years has been one of its most able contributors.

LYING-IN HOSPITAL, ROTUNDO, DUBLIN.

The period for which Dr. Denham was elected to the Mastership having expired, he was succeeded by Dr. George Johnston, last Friday. The emoluments are said to average £1000 yearly.

ADELAIDE HOSPITAL, DUBLIN.

The opening address was delivered by Dr. Richardson, surgeon to the hospital; and at its conclusion he delivered the following prizes; viz., Medical: Senior, Mr. Richard D. Bennett; Junior, Mr. Knaggs. Surgical: Senior, Mr. Battersby and Mr. Bennett (equal); Junior, Mr. Knaggs. Eye Surgery: First, Mr. Bradley; Second, Mr. Stone.

DEATH OF DR. STRONGE, OF DUBLIN.

We regret extremely to record that Dr. Stronge has succumbed to an attack of malignant typhus, which he is supposed to have contracted in the discharge of his professional duties. He was elected last May to the Surgeoncy of the Meath Hospital, and was deservedly most popular among his brethren. He had previously practised in Belfast.

CITY OF DUBLIN HOSPITAL.

The introductory lecture of the session was delivered on the 3rd instant by Dr. John Hawtrey Benson, after which the summer session prizes were distributed by the Lord Mayor; viz.: Surgery Prize Medals: First, Mr. John Burgoyne; Second, Mr. George Bevan; Third, Mr. William Alges. Medicine and Pathology: Senior Class Silver Medal to Mr. Alex. R. Joyce; Junior Class Silver Medal to Mr. Lewis A. Irving; and certificates were awarded to Messrs. William Finlay and Ernest Thompson.

DR. STEEVENS'S HOSPITAL, DUBLIN.

The following honours, which were awarded at the termination of the session 1867-8, were distributed by the Lord Mayor of Dublin, in the anatomical theatre of the hospital, on the 3rd instant. *Cusack Medals and Exhibitions*—Senior, T. L. Bookey, Carnew; Middle, Abraham Colles, Dublin; Junior, William Bookey, Carnew. *Surgical Clinical Prize*—Richard Swain, Kilkenny. *Midwifery Assistants*—Messrs. E. A. H. Roe and James G. Wall. *Certificates of General Attention and Proficiency at Terminal Examinations*—F. C. Adey, Thomas Bayley, C. A. Bell, Robert Jones, T. Magrath, R. F. Maguire, E. Matthews, E. A. H. Roe, James G. Wall, S. Sexton, T. H. Taaffe, T. R. Wills. *Materia Medica Lecturer's Prize*—Messrs. Bookey and McIlwee.

MEDICAL REPRESENTATION IN PARLIAMENT.

A meeting of the members of the medical profession of the town and country was held on Tuesday, in the Molesworth Place Hall, to consider the expediency of supporting the medical candidate in Dublin for the House of Commons; Dr. Lyons in the chair. Dr. R. McDonnell, F.R.S., moved, and Dr. Hynes, President of the Connaught Branch of the Irish Medical Association, seconded, the first resolution—"That, in the opinion of this meeting, it is in the highest degree desirable, on public as well as professional grounds, that a medical man of eminence, as representative of the medical profession, should be returned to the new Parliament. Professor Hayden moved, and Dr. Ashe of Warrenpoint seconded—"That this meeting has learned with great regret that the Council of the Irish Medical Association, a body for years professing its anxiety to establish professional representation in Parliament, has declined to act on the present occasion, when the opportunity presents itself of promoting the return of a medical candidate." Dr. O'Meara of Carlow then proposed, and Dr. Cruise seconded, the next resolution; namely—"That this meeting is of opinion that it is most desirable to take immediate steps to secure the return of a representative of the medical profession in Ireland." Sir D. Corrigan, having been called on by the Chairman, spoke at great length, and stated his views most explicitly on several subjects of interest to the profession. It was then moved by Dr. Fitzpatrick, and seconded by Dr. Byrne—"That this meeting, having heard the exposition of Sir D. Corrigan's views, pledges itself to use its best exertions to secure his return." Dr. Mapother moved, and Dr. Davys, Coroner, seconded—"That this meeting is of opinion that the best course to obtain superannuation for medical officers is by the introduction of a special Bill for that purpose, as suggested by Sir D. Corrigan in his address to the profession." Dr. Cryan moved, and Dr. Brady seconded, the last resolution; namely—"That the cordial thanks of this meeting be given to the country medical practitioners, who have so well supported the cause of the representation of our profession in Parliament by their liberal subscriptions." On the motion of Mr. Tyrrell, seconded by Dr. Walshe, a vote of thanks to the Chairman was unanimously passed.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: WEST SURREY AND SUSSEX DISTRICT MEETINGS.

The next meeting of the above Branch will be held at the Royal Surrey County Hospital, Guildford, on Thursday, November 19th, at 3.45 P.M. Albert Napper, Esq., in the Chair.

Dinner at the Angel Hotel, at 5.30 P.M.

Papers, etc., will be read by Mr. Sidney Jones, Mr. Albert Napper, Mr. J. H. D. Mathews, Mr. J. B. Stedman, Mr. T. M. Butler, and Mr. E. J. Bostock. John Morton, M.B., *Honorary Secretary.*

Guildford, November 7th, 1868.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

The next meeting of the above Branch will be held at the Fountain Hotel, Canterbury, on Thursday, November 26th, at 3 P.M.—Dinner at 5 P.M.

November 1868. Robert L. Bowles, *Hon. Secretary.*

SHROPSHIRE ETHICAL BRANCH: ANNUAL MEETING.

The Annual Meeting of this Branch was held at the Lion Hotel, Shrewsbury, on October 27th, at 1.30 P.M. The President, W. J. Clement, Esq., M.P., having been telegraphed for in consultation on a case of great urgency, the Vice-President, Dr. Roe, took the Chair. Twenty-five members were present, several having travelled considerable distances.

The following resolutions were unanimously passed.

Vote of Thanks.—"That the cordial thanks of the meeting be given to the late President, Vice-President, Council, and Honorary Secretaries, for their valuable services during the past year."

Election of Officers.—"That Dr. Roe be elected President, and Alfred Mathias, Esq., Vice-President, and the following gentlemen members of the Council, for the ensuing year, in the place of those who retire by rotation or otherwise: John Brown, Esq.; J. Edmunds, Esq.; J. Glover, Esq.; Robert Jones, Esq.; and J. W. Procter, Esq."

Representation of the Branch in the General Council.—"That, in accordance with the eighth general law of the British Medical Association, W. J. Clement, Esq., M.P., J. W. Roe, M.D., and Alfred Mathias, Esq., be the representatives of the Branch in the General Council for the ensuing year."

The Journal.—"That this meeting desires to record its satisfaction at the continued general improvement of the Journal of the Association under its present able editor."

The Medical Act.—"An amendment of the Medical Act being of great public as well as of professional importance, it is desirable that every support be rendered to the General Medical Council in their efforts to obtain it; and that a petition in support of the Medical Acts Amendment Bill be drawn up and signed by the President and Honorary Secretaries, and, at the proper time, presented to both Houses of Parliament; and also that a representation or memorial, embodying the amendments most essential, be made to Her Majesty's Government, and entrusted to our present worthy member, W. J. Clement, Esq., M.P., for presentation (if re-elected.")

Direct Representation in the Medical Council.—"That a memorial to Her Majesty's Government, and petitions to both Houses of Parliament, be presented by this Branch in favour of the direct representation of the medical profession in the Medical Council; and that such memorial and petitions be drawn up and signed by the President and Honorary Secretaries." Also, "That every opportunity be taken by the members of the Branch to impress upon the candidates for seats in the House of Commons during the ensuing elections, and upon members of Parliament, the great importance to the public welfare of the direct representation of the profession in the Medical Council."

Committee on Sick-Club Remuneration, Vaccination Fees, and Medical Charges.—"That a Committee, to consist of the following members, with power to add to their number, be formed, to consider and report on the subject of medical charges and vaccination fees, with the view to prepare a tariff applicable to the respective classes of society throughout the county and districts of the Branch; also to consider and report as to the best means of supporting the movement, inaugurated in Birmingham, having for its object a fair and just remuneration for medical attendance upon the members of sick-clubs and benefit-societies:—W. J. Clement, Esq., M.P.; James Bretton, Esq., Shrewsbury; Dr. Beddoes, Shrewsbury; A. G. Brookes, Esq., Shrewsbury; J. R. Humphreys, Esq., Shrewsbury; J. Bromfield, Esq., Whitchurch; W. P. Brookes, Esq., Much Wenlock; W. K. Brock, Esq., Llandrinio; Dr. Fuller, Oswestry; J. Glover, Esq., Dorrington; J. B. Gwynne, Esq., Wem; E. T. D. Harrison, Esq., Welshpool; J. Hickman, Esq., Brockton; C. H. Johnson, Esq., Shiffnal; Robert Jones, Esq., Strefford; W. W. Jones, Esq., Cleobury Mortimer; T. Morgan, Esq., Madeley; John Rider, Esq., Wellington; Dr. Roe, Ellesmere; Dr. Sandford, Market Drayton; W. Thursfield, Esq., Bridgnorth; K. Wilding, Esq., Church Stretton; and the Honorary Secretaries. Five to form a quorum."—An interesting and practical discussion succeeded the reading of the preceding resolution, in the course of which Dr. Heslop of Birmingham and several of the Branch members favoured the meeting with the results of their experience in the matter.

Thanks to the Chairman.—"That the thanks of the meeting be given to Dr. Roe for the ability and courtesy with which, in the unavoidable absence of the President, he has conducted the business of the meeting, and for his uniform efforts to uphold the honour and interests of the profession."

In consequence of the prolonged discussion on the seventh resolution, the reading of various papers and cases was necessarily deferred.

The Dinner.—At 5 P.M., between forty and fifty gentlemen sat down to an excellent dinner in the ball-room (which had been beautifully decorated for the occasion), under the presidency of W. J. Clement, Esq., M.P.; the vice-chairs being filled by Dr. Styrap and Dr. Roe. The following eminent associates, etc., honoured the President with their presence as guests of the Branch: Dr. Sibson, F.R.S., London; Dr. Falconer, Bath; Rev. W. H. Moss; Rev. J. Rigg, Shrewsbury; H. M. Clayton, Esq., Birmingham; Ernest Hart, Esq., London; Dr. Heslop, Birmingham; T. Nunneley, Esq., Leeds; J. V. Solomon, Esq., Birmingham; Dr. A. T. H. Waters, Liverpool; Dr. Wilkinson, Manchester; and T. W. Williams, Esq., Birmingham; also W. K. Brock, Esq., Llandrinio; J. Bromfield, Esq., Whitchurch; J. S. Davies, Esq., Oswestry; Dr. Fuller, Oswestry; J. B. Gwynne, Esq., Wem; J. Glover, Esq., Dorrington; F. H. Hartshorne, Esq., Broseley; J. Hickman, Esq., Brockton; C. H. Johnson, Esq., Shiffnal; A. Mathias, Esq., Bridgnorth; Dr. McClintock, Church Stretton; Dr. Meteyard, Cleobury; J. Morgan, Esq., Waters Upton; T. A. F. Scott, Esq., Knighton; Dr. Hyman, Newtown; Dr. Thursfield, Bridgnorth; R. Wilding, Esq., Church Stretton; J. G. Wilson, Esq., Wem; Dr. Andrew; Dr. Beddoes; J. Bratton, Esq. (the Mayor); A. G. Brookes, Esq.; A. P. Cartwright, Esq.: J. R. Humphreys, Esq.; F. Whitwell, Esq.; and W. O. Withers, Esq., Shrewsbury; etc. The following were unavoidably absent, as were also several country practitioners who fully intended to be present, to support the worthy President and do honour to their distinguished guests, but were unfortunately prevented by urgent professional engagements: Dr. Bell Fletcher, Birmingham; W: D. Husband, Esq., York; Dr. Parkes, Netley; Dr. Sieveking, London; G. Southam, Esq., Manchester; Dr. Stewart, London; and Dr. Stokes, Dublin.

In the evening, there was a reception at the House of Mr. Clements; and next morning Mr. Humphreys gave a champagne breakfast.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Nov. 2nd, 1868.

B. W. Richardson, M.D., F.R.S., President, in the Chair.

Mr. Alfred Cooper showed a Calculus which he had removed from the bladder of a boy, aged 12, by the lateral operation of lithotomy. The point of interest was that the boy had been in the West London Hospital for seventeen days without showing a symptom of the presence of the foreign body.

Mr. Cooper also exhibited three Polypi of the Rectum, one of which he had removed from a child, one from a lady, and one from a gentleman. He had used the ligature in all cases, and all had been mistaken for hæmorrhoids.

Mr. Henry Smith showed a Stone, weighing five and a-half ounces, which he had removed from a woman's bladder. She had suffered eight or ten years from the disease. He extracted the calculus piecemeal by an incision made through the vagina. The patient had since died.

Mr. Smith also exhibited a case of Stone from the Female Bladder in which he had performed the usual operation of lithotrity. At the second operation there was something difficulty in introducing the lithotrite; the cause of obstruction was discovered to be a fragment as large as a small walnut, which had become impacted in the urethra. This was removed by a slight incision, and the patient did well.

A discussion then followed on the question of dilating the urethra. Mr. Walter Coulson and Mr. Bryant were of opinion that rapid dilatation was seldom, if ever, followed by incontinence, whereas slow or gradual dilatation was attended by this distressing sequel.

The Medio-lateral Operation for Lithotomy. By Henry Lee, Esq.—Mr. Lee described the mode of performing the medio-lateral operation, and said it combined the advantages of all the other methods that had been recommended without many of their disadvantages, the urethra in Mr. Lee's operation was entered in the median line, which he considered ensured the success of the operation as far as the surgeon was concerned. The incision was carried round the front and left side of the rectum, so as to leave a sufficiently large external opening. The patient for this operation was placed in the ordinary position for lithotomy, and a grooved staff was introduced into the bladder; the skin of the scrotum was held moderately tight by an assistant, and an incision was made in the median line of the perinæum from before backwards; this should extend through its posterior half, terminating two or three lines in front of the anus. From this point the incision was continued for a quarter of a circle round the front and left side of the rectum. The finger of the left hand might then be put into the wound, and the rectum passed back whilst an additional touch or two with the knife separated it still further from the parts in front. The fore-finger of the left hand was now passed into the rectum, and the knife, with its back towards the bowel, was passed, at the posterior part of the central incision, into the membranous portion of the urethra. With the finger as a guide this was done with great ease and certainty. A bistoury or knife with a probe at its extremity was then passed into the same opening and made to slide along the staff into the bladder. The forceps, or any other instrument that might be used, was also introduced more directly into the bladder than in the ordinary lateral operation. The incision into the prostate gland was made from within outward; and this Mr. Lee considered an advantage. In children, a single incision with the scalpel was sufficient, but in adults, the circular part of the wound should be deepened either before or after the urethra was opened. The operation as a whole was, he thought, the simplest in conception, the easiest in execution, and the least liable to be attended or followed by any unfavourable complication, of all the operations for lithotomy. Mr. Bryant advocated the plan that had been taught of using a straight staff. He believed that almost any stone of reasonable size could be removed by the lateral method. Mr. Lee's plan might be useful in very large stones.—Mr. Walter Coulson and Mr. Teevan respectively spoke of cutting not dilating the prostate, and exhibited calculi which they had removed.—The President gave succinct history of the operation of lithotomy, and showed that, whatever operations were performed, death was in proportion to the age.—Mr. Charles Hawkins said that the mortality was greater in private than in hospital practice; the reason being, that hospital patients applied earlier for relief and were more ready to undergo the necessary operative procedure. Private patients, on the contrary, hoped on until their kidneys and bladders became diseased.—In reply, Mr. Lee stated that, doubtless, those who had had much experience in lithotomy could do the usual operation with much precision and success, but he believed that there were a very large class of surgeons who would *willingly* be sure before they commenced the operation that they should get into the bladder. If the former class preferred the ordinary lateral operation, and the latter were to adopt his (Mr. Lee's) operation, he apprehended that he should have a large majority upon his side.

After a few remarks from Mr. Gregory Smith and Mr. Mason the meeting adjourned.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

BODMIN WORKHOUSE.

Mr. Mudge, by quietly enforcing his case, and assisted by the non-interference of his professional neighbours, has had his salary raised from £58 : 15 to £80 *per annum*; and although this is below the increase he asked for, we understand that he has accepted it.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

Sir,—The enclosed form of letter has been forwarded to every member of the Association, with an earnest request that he would at once transmit it to any candidate for a seat in Parliament for the county or borough in which he may reside.

Although our members are to be found in every county in England and Wales, I have, on the part of the Council, to request that you will kindly insert it in this week's Journal, so that Poor-law medical officers who have not joined us may adopt a similar form of letter in their applications to candidates. I am, etc.,

Joseph Rogers, *President of the Association.*

33, Dean Street, Soho, November, 1868.

"November ....

"Sir,—The grievances of the Poor-law medical officers of England and Wales, upwards of three thousand in number, and having charge of more than a million and a-half of poor sick persons annually, being universally acknowledged, I am requested by the Council of the Poor-law Medical Officers' Association to inquire of you whether, in the event of your being returned to Parliament—

"1. You will endeavour to amend the constitution of the Poor-law Board, by securing the appointment thereto of medical and other members competent to devise and carry out a uniform and official system of medical relief to the sick poor?

"Whether you will support any well-devised measure that may be brought forward in Parliament to obtain justice for the medical officers and adequate remuneration for their services?

"Requesting the favour of an early reply,

"...... Esq. I am, sir, yours obediently, ..."

THE RECENT APPOINTMENTS AT THE POOR-LAW BOARD.

During the passage of the amended Poor-law Bill through the Houses of Legislature last Session, there was a tolerably general expression of opinion that it was advisable that more inspectors should be appointed, and the Select Committee of the Lords recommended that a proportion of such inspectors should be medical. This suggestion was opposed violently by Earl Devon, as the representative of the permanent obstructives at Gwydyr House; but his lordship stood alone in his antagonism. The decision of the Lords gave very general satisfaction to the public, justly scandalised by the proved laxness of lay inspectors in matters relating to the sick poor; but, as we found with the recommendation of the Select Committee of the Commons in regard to quinine, cod-liver oil, and expensive medicines, so we learn in reference to the decision of the Lords—it is distasteful to the office, and is therefore quietly ignored. The Poor-law Board evidently considers that it stands so well with the public, that it can afford to shelve the suggestions of both Houses, at least, that is the interpretation that we put upon the announcement, just made, that Earl Devon has appointed Mr. Reginald Courtenay and Mr. J. Fleming to be additional Poor-law inspectors. The names seem to us strangely familiar, and we should not be surprised to learn that they are related in some very intimate way to existing officials; the fact, however, of their being additionally announced as barristers-at-law, is, we think, an intentional flouting of public opinion.

Earl Devon has been excused many questionable things during his incumbency, in virtue of supposed amiability, or—as we prefer to put it—weakness of character. But we unhesitatingly express our opinion that these appointments are acts of gross nepotism, and, if Parliament had been sitting, would not have been made. Fortunately the inauguration of a reformed House will not be long delayed, and one of its first acts, after it settles down to work, will be, we sincerely trust, to thoroughly overhaul the Office over which an irresponsible official now reigns supreme.—*Poor Law Chronicle.*

SUPERANNUATION OF MEDICAL OFFICERS.

The following reasons for supporting a Bill for the superannuation of Poor-law and dispensary medical officers have been issued by the Irish Medical Association:—"1. Poor-law and dispensary medical officers are obliged to place their whole time, both night and day (as well as Sundays), at the disposal of the public. 2. It is just that a public officer, who has become disabled in discharge of his duty, should have a retiring allowance. 3. It is wise to substitute a fresh and active physician for one who has become old or infirm. 4. It is not subject to abuse; for a medical man will not retire while able to work, inasmuch as his retirement is the signal for the appointment of a rival in his sphere of practice." We call the attention of English medical electors to them, feeling sure that the members of our profession in England will be prompt to avail themselves of the opportunity of advocating the claims of their Irish, as of their English, medical brethren.

CORRESPONDENCE.

ANEURISM OF THE PULMONARY ARTERY AS A SOURCE OF HÆMOPTYSIS.

Sir,—I beg to thank Mr. Fearn for his letter in the Journal of last week, as it has led me to read his paper, to which it refers.

My first case of aneurism of the pulmonary artery was published in the *Medical Times and Gazette* of January 1866. I always considered it a complete novelty—the first, in order, of its kind; and it has been, I believe, so considered by others. It drew attention to the subject, and, unknown to me at the time I wrote my paper, brought to light Mr. Fearn's original case, reported in the *Lancet* so far back as the year 1841, besides leading to the discovery and publication of other cases. My colleague Dr. Quain recorded one a few months after mine appeared, and Dr. Moxon subsequently brought forward another; both of these may be seen in the *Pathological Society's Transactions*, vols. xvii and xviii.

Mr. Fearn's case, indeed, complete and important though it was, seems to have been altogether forgotten. It had slumbered for a quarter of a century in the pages of the *Lancet*, although the highly suggestive way in which it was recorded certainly claimed for it a better fate. As the first observed, however, it adds importance to my cases; whilst mine, numerically, add importance to it.

To me, and to most of us, who cannot be supposed to have been acquainted with the *Lancet* twenty-seven years, my discovery was certainly new; although I am now, thanks to Mr. Fearn, quite contented in calling it, as it was, rather a "revival" than a novelty; aneurism of the pulmonary artery having evidently acted the part of a Rip Van Winkle, and, like that worthy, led to some little bewilderment.

I am, etc., Richard Payne Cotton, M.D.

Clarges Street, Piccadilly, November 1868.

PROVINCIAL MEDICAL SCHOOLS.

Sir,—My attention has been called to a paragraph in the last number (Nov. 7th) of the British Medical Journal, in which, under the heading "Provincial Medical Schools," is stated, "the number of gentlemen pursuing their *professional* studies" at the provincial institutions. That portion of it which has reference to this school is incorrect, the number on our register for the present session being forty-three. I shall therefore feel obliged by your inserting this in your next issue.

I am, etc., Reginald Harrison, *Registrar.*

Liverpool Royal Infirmary School of Medicine, Nov. 11, 1868.

HECKSTALL SMITH TESTIMONIAL FUND.

(Second List.)

	£	s.		£	s
F. Le Gros Clark, Esq. ...	1	1	C. R. Thompson, Esq.......	1	1
Rd. Tippetts, Esq.	1	1	Henry Sterry, Esq.	1	1
Dr. Gramshaw	1	1	Jos. T. Clover, Esq..........	1	1
Ed. Westall, Esq.............	1	1	G. F. Hodgson, Esq.	0	10
Geo. Stilwell, Esq.	1	1	Dr. Christian	1	1
Ed. Burney, Esq.	1	1	Geo. Thos. Dale, Esq.	1	1
W. A. Leslie, Esq.	1	1			

OBITUARY.

THOMAS HILLIER, M.D.

We deeply regret to have to record the untimely death of this highly esteemed and accomplished physician. Dr. Hillier's health had been failing lately; and, acting under the advice of his medical friends, he was preparing to pass six months in a warm climate. A sudden shock which he received from the death of a near relative seemed greatly to affect him; and severe cerebral symptoms supervened, ending fatally.

Dr. Hillier was known not only as an able clinical student of skin-diseases and diseases of children, on which he has made many valuable publications—one quite recently—but as a highly accomplished practitioner in all branches of medicine, an earnest and enlightened sanitarian, and a man of eminently scholarlike, refined, and amiable character. He graduated as B.A. of the University of London in 1849, and M.D. in 1855. He was a Fellow of University College, and Physician to the Children's Hospital and to the skin department of University College Hospital. His unwearied labours as Medical Officer of Health of St. Pancras laid that parish under a heavy debt of gratitude to him, but ill repaid by its authorities. His untimely death has caused deep and general grief in the ranks of the profession in London.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Nov. 4th to 10th (both inclusive).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.916
Highest reading of do. (corrected and reduced), on 9th, 10 A.M.	30.103
Lowest ditto Ditto on 4th, 10 P.M.	29.635
Range of pressure during the week	00.468
Mean temperature of the air in the shade	40.2
Mean temperature of evaporation	37.7
Mean temperature of dew-point	34.5
Mean degree of humidity (saturation=100)	80.4
Mean maximum temperature of the week	46.4
Mean minimum temperature of the week	31.9
Calculated mean temperature of the week	39.1
Maximum temperature of air in shade, on 4th	54.0
Minimum temperature (protected), on 6th and 7th	25.0
Minimum temperature (exposed on grass), on 6th	19.0
Range of temperature during week	35.0
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 5th	93.8
Lowest ditto ditto on 4th	61.3
Mean amount of clouds (0—10)	3.6
Total rainfall (which fell on 4th)	0.12 inch
Mean amount of ozone (0—10)	2.6

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M	2	2	0	0	0	0	2	1	0	4.0
2 P.M	2	3	0	0	0	0	1	1	0	4.4
10 P.M	1	1	0	0	0	0	1	1	3	1.6

Mean force of wind (0—12) 3.3

The weather of the week has been fair. Atmospheric pressure, though somewhat less than last week, has been more steady. Temperature has decreased considerably, being on an average 10° F. below that of last week. Winds, which were strong and from the westward in the beginning of the week, have changed to the north and north-east, abating at the same time in force. Sharp frosts occurred during the 5th, 6th, 7th, and 8th. The general health continues good.

Kew, November 11th, 1868.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on November 10th; and, when eligible, will be admitted to the pass examination:—

F. E. Clarke, Patrick Allen, R. E. N. Bolton, George Ballantine, and S. M. Salaman (Students of Dublin); Josephus Shaw and M. A. Allen (of St. Bartholomew's Hospital); A. J. Horsey (of Kingston, Canada, and the London Hospital); J. R. Dickson (of Kingston, Canada); H. W. Page (of Cambridge and the London Hospital); William Kelsey (of the London Hospital); W. H. Paterson (of Edinburgh); G. E. K. Thorpe (of Sheffield); D. E. Griffiths (of Glasgow); J. A. Howell (of Bombay); and George Clifton (of St. Thomas's Hospital).

It is stated that eight candidates out of the twenty-four failed to acquit themselves to the satisfaction of the Court, and were consequently referred to their anatomical and physiological studies for three months. At this meeting of the Court, Mr. George Busk, F.R.S., the recently elected examiner in the vacancy occasioned by the resignation of Mr. John Flint South, took part in the examinations.

Royal Colleges of Physicians and Surgeons, Edinburgh: Double Qualification.—The following gentlemen passed their first professional examinations during the October sittings of the examiners.

Kerr, Thomas Graham, Calcutta
M'Naughton, Niel, Argyllshire
Mossop, Isaac, Whitehaven
Molloys, Oscar Frederick, Belfast
Spedding, Benjamin Henry, County Cork

The following gentlemen passed their final examinations, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

Blakely, Edmund Breakey, Banbridge
Cox, Henry A. H., Chicago
Gill, William, London
Hilles, Joseph William, London
Isaac, John Baldwin, Strokestown
Lyall, Andrew, Macduff
Misso, William Edwin, Ceylon
Murray, John, Kirkcudbrightshire
Parke, R. C., Millvin, Donaghadee
Peters, Chas. T., Dinagepore, Bengal
Roe, Wm. A. C., County Cavan
Smyth, Arthur Vereker, Tipperary
Smyth, Wm. John, Cookstown
Wilson, John Bower, Sheffield

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 5th, 1868.

Boutflower, Andrew, Strangeways, Manchester
Bulmer, Thomas Sanderson, Hackney
Little, William, Eye, near Peterborough

MEDICAL VACANCIES.

The following vacancies are declared:—

ARDEE UNION, co. Louth—Medical Officer for the Collon Dispensary District.
ANDERSON UNIVERSITY, Glasgow—Lecturer on Ophthalmic Medicine and Surgery.
AUCKLAND UNION, Durham—Medical Officer for the Whitworth (a new) District.
BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Surgeon.
BLYTHING UNION, Suffolk—Medical Officer for District No. 1 and the Workhouse.
CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square—Physician.
CHILDREN'S HOSPITAL, Birmingham—Surgeon.
ENNISCORTHY UNION, co. Wexford—Medical Officer for the Newtownbarry Dispensary District, and for the Fever Hospital.
FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, Holborn—Surgeon.
GLOUCESTERSHIRE EYE INSTITUTION, Gloucester—Assistant-Surgeon.
HAMBLEDON UNION, Surrey—Medical Officer for District of Chiddingfold.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Physician.
INSTITUTION FOR DISEASES OF CHILDREN, Pitt Street, Dublin—Physician.
LOUTH DISPENSARY, Lincolnshire—Consulting-Surgeon.
MEATH HOSPITAL, Dublin—Surgeon.
METROPOLITAN FREE HOSPITAL, Devonshire Square—House-Surgeon.
NEWPORT UNION, co. Mayo—Medical Officer for the Achill Dispensary District.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
QUEEN'S HOSPITAL, Birmingham—Physician.
ROCHESTER, CHATHAM, AND STROOD DISPENSARY--Dispenser.
ROYAL INFIRMARY, GLASGOW—Two Assistant-Physicians, a Surgeon, and Two Assistant-Surgeons, to the Dispensary Department.
ROYAL INSTITUTION OF GREAT BRITAIN—Fullerian Professor of Physiology.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ST. PANCRAS—Medical Officer of Health.
STEEVENS'S HOSPITAL, Dublin—Physician-Accoucheur and Lecturer on Midwifery.
SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.
TOXTETH PARK TOWNSHIP—Medical Officer for the Workhouse.
TRINITY COLLEGE, Dublin—Professor of Botany.
TULLAMORE UNION, King's County—Medical Officer for the Killoughey Dispensary District.
TYNEMOUTH UNION, Northumberland—Medical Offiicer for the Earsdon District.
UNIVERSITY COLLEGE HOSPITAL—Physician to the Skin Infirmary.
WESTBOURNE DISPENSARY—Visiting Medical Officer and Dispenser.
WESTMINSTER HOSPITAL—Resident House-Surgeon.
YORK—Medical Visitor of Private Lunatic Asylums for District of.

MEDICAL APPOINTMENTS.

Anderson, William, Esq., appointed House-Surgeon to the Derbyshire General Infirmary.
Carter, Albert, Esq., appointed Medical Officer of No. 1 District, Toxteth Park, Liverpool.
*Jeaffreson, Christopher, Esq., appointed Surgical Registrar to the Westminster Hospital.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Spencer Watson, "On a Case of Injury to the Knee-joint; and also a specimen of Comminuted Bones from a Gunshot-wound." Dr. Leonard Sedgwick will exhibit an improved Uterine Speculum. Mr. Alfred Cooper, a case of Carcinoma. A Ventilating Urn for the sick-room, and for the diffusion of vapour or warm air, invented by Mr. Jones, of Aylesbury, will be shewn. Mr. Thomas Hunt, "On Phases of Physic in the Present Century."—Entomological Society.

TUESDAY.—Pathological Society of London.—Anthropological Society of London.—Statistical Society.

WEDNESDAY.—Geological Society.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. J. Spence Ramskill, "On the Treatment of Rheumatic Gout by the Internal Administration of Olive Oil."—Royal Society.—Antiquarian Society.—Chemical Society.—Linnæan Society.

SATURDAY.—Association Medical Officers of Health.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

We cannot undertake to return Manuscripts not used.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

Cases for Binding the Volumes of the Journal may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

Papers of Mr. Henry Lee, Dr. Balthazar Foster, Dr. Hyde Salter, Dr. Taylor (Nottingham), Mr. Thos. Bryant, Dr. Wolfe (Glasgow), and others, are in the printer's hands, and shall have early insertion.

Soda-water.

We are glad to learn that the suggestions which we last week made as the result of the analyses which we have instituted of mineral waters, are likely to be acted on by the trade. We are informed by Mr. Hogg, of Albion Place, Hyde Park, that he now prepares soda-water containing fifteen grains of bicarbonate of soda to the bottle, for medicinal use, in accordance with the prescription of the *British Pharmacopœia*; and that medical men may, in the case of prescribing his soda-water, rely upon the given quantity of alkali being contained in each bottle.

Dr. Knight (Keswick) will find probably the information which he desires in Dr. Waring's pamphlet on *Cottage Hospitals*, published by Churchill and Sons.

Cambridge University Medical School.

Sir,—In the list of provincial medical schools, apparently from official source, given in your Journal last week, the number of students pursuing their professional studies in the Cambridge University Medical School is given at seventeen. In this there is certainly some mistake, as the number of medical students who were members of the Medical Society amounted last year to not less than forty-five. The number of those who commenced medical study in the University in that year was twenty-five. The number of entries seems, therefore, probably equal to that of any of the provincial schools, and more than half those in London.

I am, etc., Beresford N. Earle,
Late Secretary of the Cambridge University Medical Society, Trin. Coll. Camb.

Prevention of Infanticide.

Sir,—Can you inform me whether or not there is in Paris (or any other town in France), an institution, similar to that in Naples, where, in order to prevent infanticide, mothers can place their infants, without letter or recommendation of any sort, without even divulging their name or relationship to the child. I am, etc., Lex.

P.S.—Is the system of "baby-farming" carried out to the same extent in Paris as in London?

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the Journal, should arrive at the Office not later than 10 A.M. on Thursday.

F. Lucy, F.R.C.S. (Poole).—We do not feel at liberty to give any further advice on the subject, than the ordinary rules of personal responsibility will of necessity have suggested to our correspondent.

The Calendar of the Royal College of Surgeons.

Sir,—I am indebted to a friend for a sight of the new Calendar published by the College of Surgeons. It is a book excellently got up, and full of interesting matter, and such as should be in the hands of every member of the College. Till now, I was unaware of the existence of such a book; but I am told it may now be purchased for a shilling. I venture to suggest that it may be sold at the College; or supplied through the post to any one who will forward eighteen postage-stamps, which would suffice to pay the postage and for the trouble of sending it.

Hereford, Oct. 1868. I am, etc., A Country Fellow.

A Member (Liverpool).—The examinations for the Fellowship of the College will take place on the 21st instant.

Mr. Garraway (Farnham).—The infamous circulars enclosed have before been noticed. In the present state of the Medical Act, we know not how to combat the practices of these miserable spermatorrhœa quacks.

A.B.C. (Salop).—We cannot see any strong objection to complying with the wish, under the circumstances stated. Our impression is, that such an arrangement is not so very unusual as our correspondent implies.

J. L. should consult the work of the author on *Uterine Surgery* for the therapeutic details which he asks. Dr. Marion Sims is at the present moment in New York.

A Practitioner and A Subscriber will find information as to the therapeutic use of the sulphurous acid spray, in the pamphlet of Dr. Dewar of Kirkcaldy, published, we think, by Messrs. Edmonstone and Douglas, Edinburgh.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Wiltshire County Mirror, Nov. 11th; Arris's Birmingham Gazette, Nov. 7th; The Norfolk Chronicle and Norwich Gazette, Nov. 7th; The Glasgow Herald, Nov. 4th; The Dublin General Advertiser, Oct. 31st; The Staffordshire Advertiser, Nov. 7th; The Plymouth Western Morning News, Nov. 3rd; The Aberdeen Free Press; The Aberdeen Herald; The Aberdeen Journal.

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BOOKS, etc., RECEIVED.

Dr. Rigby's Obstetric Memoranda. Fourth Edition, Revised and Enlarged. By Alfred Meadows, M.D. London: 1868.

The Artificial Production of Tubercle in the Lower Animals. A Lecture delivered at the Royal College of Physicians. By Wilson Fox, M.D. London: 1868.

The A B C Sewage Process; being a Report of the Experiments hitherto made at Leicester, Tottenham, and Leamington, on the Purification and Utilisation of Sewage. Second Edition. Published by Special Request. London: 1868.

The Hundred and Thirtieth Annual Report of the State of the County Hospital at Winchester. 1868.

Medical Life in the Navy. By W. Stables, M.D. London: 1868.

Third Annual Report on the Sanitary Condition of Merthyr Tydfil for the Year 1867, with Appendix. By Thomas Jones Dyke. Merthyr Tydfil: 1868.

Army Medical Department Report for the Year 1866.

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Parr, Alfred, M.D. New Brighton
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Robinson, John, M B. Runcorn
Russell, David, M.D. Neston
Seller, John L. M.D. Tarporley
Senior, Rawson, Esq. Bowden
Smith, S. Esq. Weaverham, Northwich
Spratly, S. M.D. Rock Ferry.
Stolterfoth, Sigismund, M.D. Chester
Taylor, Edward, Esq, Birkenhead
Taylor, James, Esq. Surgeon to the Infirmary, Chester
Turner, George, M.D. Consulting Physician to the Infirmary, Stockport
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Vaughan, W. E. Esq. Crewe
Walker, George, M.D. Birkenhead
Waters, E. M.D. Physician to the Infirmary, Chester
Watson, George B. C. M.D. Chester
Weaver, John D. Esq. Surgeon to the Infirmary, Chester
Weaver, Frederick P. M.D. Frodsham
White, Archibald, M.D. New Brighton
Whitton, Samuel, L.R.C.P.Ed. Halton
Willett, James, Esq. Stretton
Williams, Charles, Esq. Northwich

CORNWALL.

Number of Members..24.
Branch..South Western.

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Barham, C. M.D. Senior Physician to the Cornwall Infirmary, Truro
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Clay, R. H. M.D. Launceston
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Montgomery, J. Barclay, M.D. Physician to the Dispensary, Penzance
Pearse, William, Esq. St. Tudye
Rosewall, G. B. Esq. St. Ives
Sargent, H. E. M.D. Lewannick, Launceston
Sellors, J. M. M.B. Gunnislake (dead)
Thompson, David, Esq. Launceston
Ward, John, Esq. Surgeon to the East Cornwall Hospital, Bodmin
West, Edward L. L.R.C.P.Ed. Launceston
Worth, Edward J. Esq. Millbrook

CUMBERLAND.

Number of Members..59.
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Barnes, Thomas, M.D. F.R.S.E. Physician to the Fever Hospital, Carlisle
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Brampton, Jonathan, Esq. Whitehaven
Brockwell, John, L.R.C.P.Ed. Cleator, Whitehaven
Brown, Robert, Esq. Surgeon to the Infirmary, Carlisle
Campbell, John A. M.D. Assistant Medical Officer of the Cumberland and Westmorland Asylum, Carlisle
Carlyle, David, M.D. Carlisle
Carrick, William, Esq. Carlisle
Clouston, Thomas S. M.D. Superintendent of the Cumberland and Westmorland Asylum, Carlisle
Dick, James, M.D. Harrington
Dickson, Joseph, M.D. Whitehaven
Dodgson, Henry, M.D. Cockermouth
Elliot, Robert, M.D. Physician to the Dispensary and Fever Hospital, Carlisle
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Hudson, Thomas W. Esq. Bootle
I'Anson, Thomas F. M.D. Surgeon to the Whitehaven and West Cumberland Infirmary, Whitehaven
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Knight, Alexander A. H. M.D. Keswick
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Lietch, D. M.D. Derwent Bank, Keswick
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Lumb, Robert, Esq. Surgeon to the Whitehaven and West Cumberland Infirmary, Whitehaven
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Tiffen, Robert, M.D. Wigton
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Troutbeck, James, M.B. Carlisle
Tweedle, John, Esq. Keswick
Walker, Robert, L.R.C.P.Ed. Surgeon to the Dispensary, Carlisle
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Borough, Frederick, Esq. Surgeon to the Dispensary, Derby
Branson, F. M.D. Baslow, Chesterfield
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Casson, J. H. Esq. Riddings, Alfreton
Clark, John, Esq. Derby (dead)
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Dolman, Arthur H. Esq. Surgeon to the General Infirmary, Derby
Eastwood, J. W. M.D. Alfreton
Evans, Samuel H. Esq. Derby
Fearn, S. W. Esq. F.G.S. Surgeon to the General Infirmary, Derby
Fentem, Thomas, Esq. Eyam
Gisborne, Henry F. Esq. Consulting Surgeon to the General Infirmary, Derby
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Ogle, William, M.D. Physician to the Infirmary, Derby
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Rhodes, James, Esq. Glossop
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Royston, John, Esq. Whitwell
Shipton, W. P. Esq. Consulting Surgeon to the Bath Charity, Bristol
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Twigge, T. N. Esq. Parwich, Ashbourne
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Webb, William, M.D. Wirksworth
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DEVONSHIRE.

Number of Members..75.
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Bell, James, Esq. Broadclyst
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Budd, Richard, M.D. Physician to the North Devon Infirmary, Barnstaple
Budd, Samuel, M.D. Physician to the Devon and Exeter Hospital, Exeter
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De la Garde, P. C. Esq. Senior Surgeon to the Devon and Exeter Hospital, and to the West of England Eye Infirmary, Exeter
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Harper, Thomas, Esq. Plymouth
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Hicks, James H. Esq. Plymouth
Hodge, Benjamin T. Esq. Surgeon to the Dispensary, Sidmouth
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James, John H. Esq. Consulting-Surgeon to the Devon and Exeter Hospital, Exeter
Kempe, Arthur, Esq. Surgeon to the Devon and Exeter Hospital, Exeter
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May, John H. S. Esq. Surgeon to the Dispensary, Plymouth
Miller, P. M.D. Consulting-Physician to the Devon and Exeter Hospital, Exeter
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Peacock, Albert L. Esq. Churchinford
Phelps, F. P. Esq. Exeter
Picken, Samuel, Esq. Plymouth
Pollard, James, Esq. Torquay
Pollard, William, jun. Esq. Surgeon to the Torbay Infirmary, Torquay
Pridham, Chas. W. L.R.C.P.Ed. Paignton
Pridham, Thomas L. Esq. Bideford
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Shapter, Thomas, M.D. Physician to the Devon and Exeter Hospital, Exeter
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Somer, James, Esq. Broadclyst
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Square, Wm. Joseph, Esq. Surgeon to the South Devon and East Cornwall Hospital, and to the Eye Infirmary, Plymouth
Swain, Paul Wm. Esq. Stoke, Devonport
Swain, William Paul, Esq. Surgeon to the Royal Albert Hospital and Eye Infirmary, Ker Street, Devonport
Thomas, Richard R. G. M.D. Tiverton
Thompson, John, M.D. Bideford
Thomson, Spencer, M.D. Ashton, Torquay
Thurgar, Benjamin B. M.D. Torquay
Toogood, I. Baruch, Esq. Surgeon to the Torbay Infirmary, Torquay
Trimmer, Francis, Esq. Okehampton
Whipple, John, Esq. Surgeon to the South Devon and East Cornwall Hospital, Plymouth

DORSETSHIRE.

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Branch..None.

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Griffin, Richard, Esq. Weymouth
Hingeston, William, Esq. Lyme Regis
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Norris, Henry E. Esq. Charmouth
Parker, Theophilus, M.D. Abbotsbury
Tarzewell, J. Esq. Sturminster Newton
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DURHAM.

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Blackett, William C. Esq. Durham
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Boyd, William, Esq. Durham
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Clarkson, Frederick G. M.D. Physician to the Hospital, Darlington (dead)
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Davis, Robert, Esq. Wrekenton
Dixon, William H. M.D. Sunderland
Donkin, Arthur S. M.D. Physician to the Infirmary, Sunderland
Douglas, M. Esq. Surgeon to the Hospital for Children, Sunderland
Douglass, George, M.D. Gateshead
Downie, George, Esq. Chester-le-Street
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Fielden, Samuel, Esq. Shildon, Darlington
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Frain, Joseph, M.D. Surgeon to the Dispensary, South Shields
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Jackson, Thomas Hayes, M.D. Surgeon to the Hospital, Darlington
Jepson, Edward Cave, Esq. Durham
Jobson, John, Esq. Bishop Auckland
Jones, F. D. M.D. Washington Station
Kelly, Walter McDonald, M.D. Crook
Laidler, Joseph, Esq. Stockton-on-Tees
Longbotham, J. Esq. Seaton Carew
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Makens, John, Esq. Middleton, Teesdale
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Munro, James, M.D. Barnard Castle
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Oliver, George, M.B. Stockton-on-Tees
Pilkington, Edward, Esq. Sunderland
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Richardson, Wm. Esq. Surgeon to the Dispensary, Stockton-on-Tees
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Thomson, J. C. M.D. Cassop, Ferry Hill
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Tyler, Edwin, Esq. Durham
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Wilson, Allan, M.D., Castle Eden
Wilson, James, Esq. Sunderland
Wood, T. O. Esq. Dunston, Gateshead

ESSEX.

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Fry, John W. Esq. Thaxted
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Hamilton, J. B. L.R.C.P.Ed. Leytonstone Road
Hare, Henry, M.D. Great Baddow
Harley, Edward, Esq. Surgeon to the Hospital, Saffron Walden
Havens, P. Esq. Wivenhoe
Jones, Alfred N. Esq. Saffron Walden
Manthorpe, Maurice L. Esq. Thorpe
Morris, D. Esq. Colchester
Nicholson, J. E. Esq. Medical Officer to the West Ham Dispensary, Stratford Green
Reynolds, R. Esq. Steeple Bumpstead
Salter, John H. Esq. Tolleshunt D'Arcy
Sanders, Charles, L.R.C.P.Ed. Chigwell
Sinclair, Duncan, Esq. Halstead
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Stear, Henry, Esq. Surgeon to the Hospital, Saffron Walden
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Waylen, Edward, Esq. Colchester
Welsh, F. F. Esq. Surgeon to the Hospital, Saffron Walden
Williams, Edward, M.D. Consulting Physician to the Essex and Colchester Hospital, Colchester
Wyman, W. S. Esq. Hatfield Broad Oak

GLOUCESTERSHIRE.

Number of Members..117.
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Beddoe, J. M.D. Physician to the Bristol Royal Infirmary, Clifton, Bristol
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Bernard, R. M. Esq. Surgeon to the Bristol Royal Infirmary, Clifton
Blagden, R. Esq. Minchinhampton
Board, Edmund C. Esq. Infirmary, Bristol
Boughton, J. H. Esq. Tewkesbury
Brittan, Frederick, M.D. Physician to the Royal Infirmary, and Lecturer on Medicine in the Medical School, Clifton, Bristol
Bryant, Samuel, Esq. Bristol
Budd, William, M.D. Consulting Physician to the Bristol Royal Infirmary, Clifton, Bristol
Burder, George F. M.D. Physician to the Bristol General Hospital, and Lecturer on Materia Medica and Therapeutics in the Medical School, Clifton, Bristol
Burleigh, Alfred, Esq. Cotham
Burroughs, J. B. Esq. Clifton, Bristol
Bush, D. Ward, M.D. Physician to the Hospital for Children, Clifton
Carr, Alexander, Esq. Totterdown, Bristol
Carter, Robert B. Esq. Stroud
Clark, Thomas E. Esq. Surgeon to the Bristol Royal Infirmary, and Lecturer

on Surgery in the Bristol Medical School, Clifton
Clarke, William M. Esq. Clifton, Bristol
Coe, R. W. Esq. Surgeon to the General Hospital, and Lecturer on Surgery in the Medical School, Bristol
Colledge, T. R. M.D. Consulting Physician to the Ophthalmic Infirmary, Cheltenham
Cook, Francis, M.D. Physician to the General Hospital, Cheltenham
Cooper, Frederick, Esq. Clifton
Cooper, William, Esq. Bristol
Corbould, George Giles, Esq. Bristol
Crocker, T. M.D. Bristol
Cross, W. Esq. Caledonia Place, Clifton
Crossman, Edward, Esq. Hambrook
Cubitt, George R. Esq. Surgeon to the Hospital, Stroud
Dalton, William, Esq. Cheltenham
Davey, James G. M.D. Northwoods, Bristol
Davies, David, Esq. Bristol
Davies, John, Esq. Surgeon-major, Surgeon to the Ophthalmic Infirmary, Cheltenham (dead)
Davies, T. H. Esq. Stapleton Road, Bristol
Day, Wm. E. L.R.C.P.Ed. Barton Hill, Bristol
Dew, Henry R. Esq. Bristol
Dobson, C. N. Esq. General Hospital, Bristol
Dowson, C. Esq. Bristol
Ellis, Robert W. Esq. Bristol
Ellis, Thomas S. Esq. Gloucester
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Fleischmann, Alfred, Esq. Cheltenham
Fox, Edward L. M.D. Physician to the Bristol Royal Infirmary, Clifton, Bristol
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Grace, H. Esq. Kingswood Hill, Bristol
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Green, Thomas, M.D. Consulting Surgeon to the Royal Infirmary, Bristol
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Hawkins, Clement J. Esq. Surgeon to the General Hospital, Cheltenham
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Highett, Charles, Esq. Bristol
Hore, Henry Augustus, Esq. Bristol
James, Joshua, Esq. Bristol
Keall, W. P. L.R.C.P.Ed. General Hospital, Bristol
Kilgour, John S. M.D. Physician to the Dispensary, Cheltenham
Knill, James, L.R.C.P.Ed. Lechlade
Lang, William, Esq. Consulting Surgeon to the General Hospital, Bristol
Lansdown, F. P. Esq. Surgeon to the General Hospital, and Lecturer on Anatomy in the Medical School, Bristol
Lawrence, John, Esq. Clifton
Leonard, Crosby, Esq. Surgeon to the Royal Infirmary, Bristol
Liddell, J. B. M.D. General Hospital, Bristol
Lloyd, E. S. Esq. Pill, near Bristol
Lucy, William, Esq. Cotham Road, Bristol
Ludlow, Ebenezer, Esq. Infirmary, Bristol
Macrorie, David, M.D. Mount Vernon, Stroud
Marshall, Henry, M.D. Surgeon to the Bristol General Hospital, and Lecturer on Forensic Medicine in the Medical School, Clifton
Martyn, Samuel, M.D. Physician to the General Hospital, and Lecturer on Medicine in the Medical School, Clifton, Bristol
Maurice, B. Esq. Redland, Bristol
Mayor, T. O. Esq. Redland, Bristol
Metford, Joseph F. Esq. Surgeon to the Clifton Dispensary, Clifton, Bristol
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Morgan, William F. Esq. Consulting Surgeon to the Royal Infirmary, Bristol
Morris, Charles William, Esq. Chipping Camden, Moreton-in-the-Marsh
Ogilvie, G. S. Esq. Merrywood Hall, Bristol (dead)
Paine, W. H. M.D. Physician to the Hospital, Stroud
Parsons, J. St. J. G. L.R.C.P.Ed. Bristol
Phelps, W. H. Esq. Bristol
Prichard, Augustin, Esq. Surgeon to the Bristol Royal Infirmary, Clifton, Bristol
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Bardsley, Sir Jas. L. M.D. Consulting Physician to the Royal Infirmary, Manchester
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(To be continued.)

CLINICAL LECTURE
ON
UTERINE LAMENESS.

Delivered in University College Hospital.

By GRAILY HEWITT, M.D., F.R.C.P.,
Professor of Midwifery in University College.

GENTLEMEN,—As science advances, new terms and new expressions are frequently necessary, either to attract attention to certain important facts or doctrines, or to represent ideas which require embodiment and a more exact symbolisation; and, if I now adopt a somewhat new term, and discuss with you what I propose to term "uterine lameness", it is with the belief that the adoption of the term will serve an useful purpose.

The word "lameness", as ordinarily used, implies a crippling, or feebleness, or paralysis of one of the lower extremities; and, in a wider sense, to convey the idea of weakness, as when we speak of a "lame excuse", a "lame argument", etc. I now, however, propose to use the word in an ordinary sense. "Uterine lameness" I define to be interference with locomotion, difficulty or pain in standing or walking, in various degrees, due to an abnormal condition of the uterus.

It is well known that inflammations of the abdominal viscera, in their acute stage, often render it physically impossible for the patient to walk at all; even passive motion of the legs gives the sufferer from peritonitis the acutest pain. In cystitis, in the acute stage of pelvic cellulitis, and in many other conditions, instances of which will readily occur to you, locomotion is difficult or extremely painful, and therefore, in one sense of the word, impossible; but not because the muscles of the legs are paralysed. There is lameness; but the power of locomotion is really unimpaired.

It is my object, on the present occasion, to direct your attention to a very interesting class of cases, in which the uterus is answerable for the lameness or the inability to walk which afflicts the patient, and in which this incapacity for exertion—"lameness", as I have termed it—is a very noticeable, though by no means the only noteworthy, feature, of the case. In the out-patient room of this hospital, the number of cases in which this uterine lameness, in one form or other, presents itself, is remarkable; and it is to me astonishing that this very grave and troublesome symptom has not received more special attention. In private practice, it is exceedingly common also.

Some forms of uterine lameness are obvious and unmistakeable enough. Such are cases in which the uterus is prolapsed, and forms a tumour altogether external to the vulva, hanging down between the thighs, and rendering locomotion, of course, painful and well-nigh impossible. These are not, however, the particular cases to which I now desire to refer. In the cases which will now engage our attention, the uterus is within the pelvis, and the "lameness" is produced in another way. The following is a typical case of one of these forms of uterine laneness.

I saw quite recently, in consultation with Dr. Macaldin, a single lady, aged 35, a governess by profession. For several years past she has been an invalid; for, though looking stout and well otherwise, she has been unable to walk more than a few steps without producing great discomfort. Frequently she is obliged to leave the dinner-table and recline, owing to pain produced by the erect posture; and for a long time she has been quite unable to follow her occupation. The sensation of discomfort on exertion is, in fact, so extreme as to preclude active motion. Believing the uterus in fault, Dr. Macaldin requested me to examine her. The accompanying diagram (Fig. 1) exhibits the condition of the uterus. It was found anteflexed, very low down in the pelvis, and the fundus pressing forwards and downwards to an extreme degree.

In this case, the upright posture, increasing still further the dislocation of the uterus, gave rise to more pain. It is not difficult to understand why this dislocation of the uterus should give pain, the whole relations of the organ being altered, and the uterus itself the seat of flexion. Such a position of the uterus I have always found associated with pain on locomotion, varying in degree in different cases, with uterine lameness, in fact. I have had under my observation, at various times, a very large number of cases in which the disorder of which the foregoing case is a type existed, and invariably evincing the same relation as regards cause and effect. Frequently, anteflexion exists without much anteversion; and, when this is the case, a cursory examination reveals little, the os uteri being nearly in its proper place. But, in such cases, the body of the uterus is readily felt through the anterior vaginal wall by means of the finger; and a further examination reveals the true nature of the case. Trifling anteversion is a natural condition; but what I am now speaking of is something far beyond this in degree. The flexion is often greater than in the particular case above related.

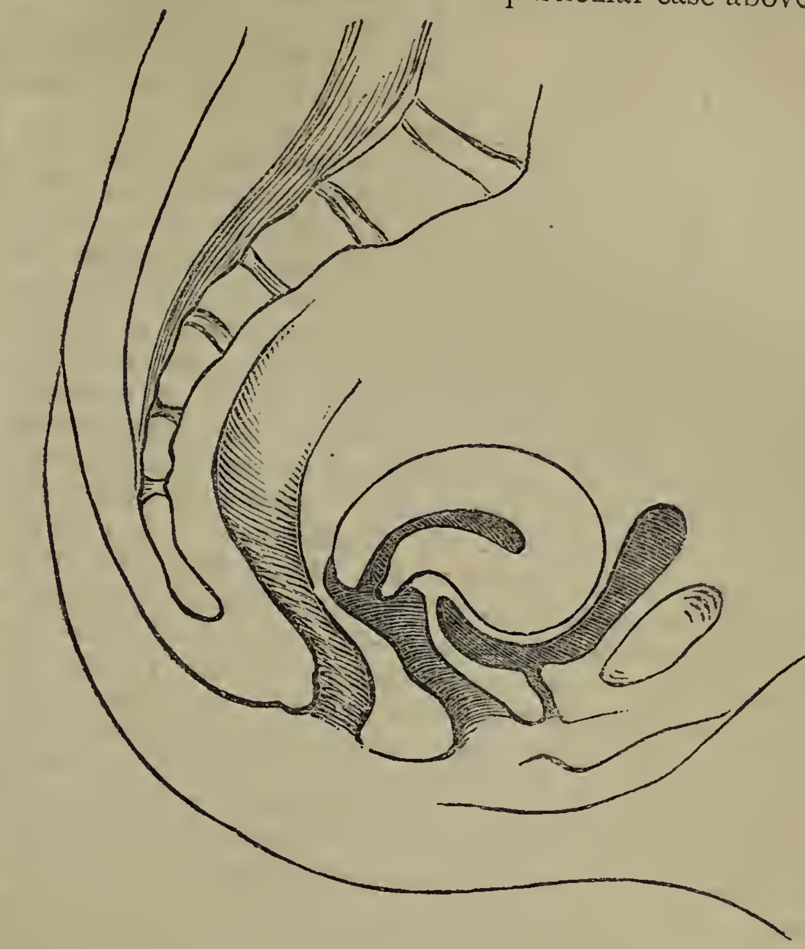

Fig. 1.

An extreme degree of uterine lameness was present in the following case, associated with anteversion of a marked form.

A young lady, aged 24, from the West of England, was sent to me by my friend Professor Wilson Fox. She had been ill for a year and a half, suffering from almost constant pain in the back and in the inguinal regions. Locomotion was productive of great aggravation of this pain. It appeared that, previously to the commencement of this illness, she had been much occupied in nursing a sick relative; and, in doing so, underwent much exertion. The uterus in this case was found completely anteverted, the organ lying parallel with the vagina, and the os uteri so high up that it was very difficult to reach it with the finger. (See Fig. 2.) The general health was much affected, and the whole system shaken and weakened. Insomnia, frequent nausea, and general want of appetite, were also noteworthy symptoms.

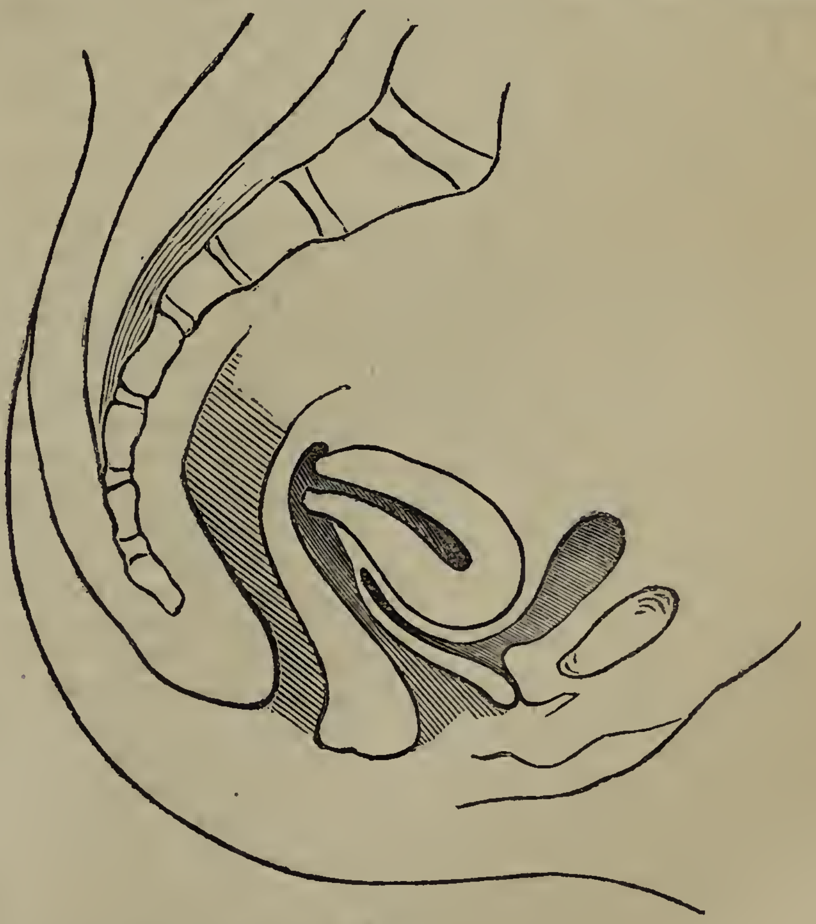

Fig. 2.

Many other cases of a similar nature to the two foregoing have been under my care, but time does not admit of their enumeration. Of this form of uterine lameness we have frequent instances in the out-patient department; and not uncommonly, as you have seen, the condition of the uterus is foretold from the symptoms. The lameness associated with anteflexion or anteversion is by no means the only symptom, but it is a very constant one. Dysmenorrhœa, menorrhagia, tendency to abortion, sterility, these are symptoms more or less frequently observed also; but, in the worst cases, the "lameness" is certainly the most prominent and troublesome symptom.

In the foregoing remarks, I have alluded to a class of cases which is the more important, as I believe they are in practice frequently overlooked, and the symptoms misinterpreted; the cases being regarded as instances of weakness, or hysteria, or chronic inflammation of the uterus. This vagueness of nosology must, however, give place to more rational and definite views on the subject. Anteflexion and anteversion of the uterus are not uncommon, and they are capable of occasioning long continued and most troublesome suffering. I say nothing at this moment of the "weakness" which may lead to these displacements, not because I think nothing of it, but because I do not in practice find that the symptoms I have described exist unassociated with what I regard as the effect of the weakness, viz., the displacement. A relaxed, subinflammatory, enlarged condition of the uterus, often, and it may be always, precedes and predisposes to the displacement; but it is the displacement which occasions the pain, and gives rise to the lameness.

I propose, in the next place, to call your attention to another class of cases in which uterine lameness exists. These are cases in which the uterus is flexed *backwards*, and the fundus is to be felt behind the upper part of the vagina. Here the lameness is, as a rule, more decided, and more constant, and more intense, than in the case of anteflexion; and this is not difficult of explanation, when we reflect that anatomically, as Dr. Savage well points out, the fundus of the uterus can be dislocated further in the backward than in the anterior direction. The lameness in marked cases of retroflexion is of the most intense degree; the slightest motion gives pain; walking is, not impossible, but so painful that it is practically given up; and this state of things may go on for years unrelieved, and, indeed, increasing in severity, if the proper remedies are not had recourse to. The symptoms are not always so intense, but they are generally of the same kind. I have generally observed that the pain spoken of extends down the back of the thighs, and more so on one side than on the other, in this form of uterine lameness; and, indeed, sometimes it is altogether limited to this one position. Motion on level ground is often tolerated to a certain degree, but walking up or down stairs gives intolerable pain. In certain cases (of which my friend Professor Priestley mentioned an interesting case at a recent meeting of the Obstetrical Society), there arises, after a time, paraplegia; the muscles of the legs lose their power, and the patient is not only unwilling, but unable, to walk. Here the paraplegia is probably a reflex phenomenon, but it may be connected with persistent disuse of the muscles.

Let me cite one or two cases as types of this form of uterine lameness.

A young lady, aged 22, whom I saw with Mr. E. Baker some time since, unaccustomed to pedestrian exercise, took certain long walks in a mountainous district. She returned home ill, and became gradually unable to walk without severe pain. When I saw her, she had been confined to her couch for some months. The uterus was found to be retroflexed, as represented in the accompanying drawing. (See Fig. 3.)

The same drawing will stand equally well as a representation of another very similar case. A young lady, single, the daughter of a clergyman, consulted me for lameness. She was unable to walk without assistance, owing to extreme pain in the left inguinal region, and extending down the left thigh. The lameness had been increasing in severity of late; but she had been unable to walk without pain for a year previous to my seeing her. I found the uterus retroflexed, and bent a little to the left side, so that the fundus was inclined towards the great sacro-sciatic notch in the left side. The uterus and adjacent parts were in an exceedingly tender condition. Inquiry elicited the fact that, thirteen months ago, while travelling in a railway-carriage, an accident occurred, and the carriage she was in was "turned up on end". A severe shake was the only apparent result; but within a month afterwards she became gradually very ill, and the pain above described commenced.

I have seen a few other cases of a similar nature where acute retroflexion had been evidently produced by a severe strain, or other mechanical cause, in young unmarried women; the interference with locomotion being the most noticeable symptom.

But uterine lameness from retroflexion of the uterus is most frequently witnessed in married women; pregnancy and the process of parturition, involving as it does considerable enlargement of the uterus, predisposes most powerfully to the occurrence of this displacement and distortion of the organ. Hardly a day passes, but we see, in the out-patients' room of this hospital, cases of this nature. Undue exertion too soon after labour is the most common exciting cause; but it may arise in a variety of ways. Chronic suffering, of which inaptitude for exertion of any kind forms a very considerable element, is witnessed in these cases.

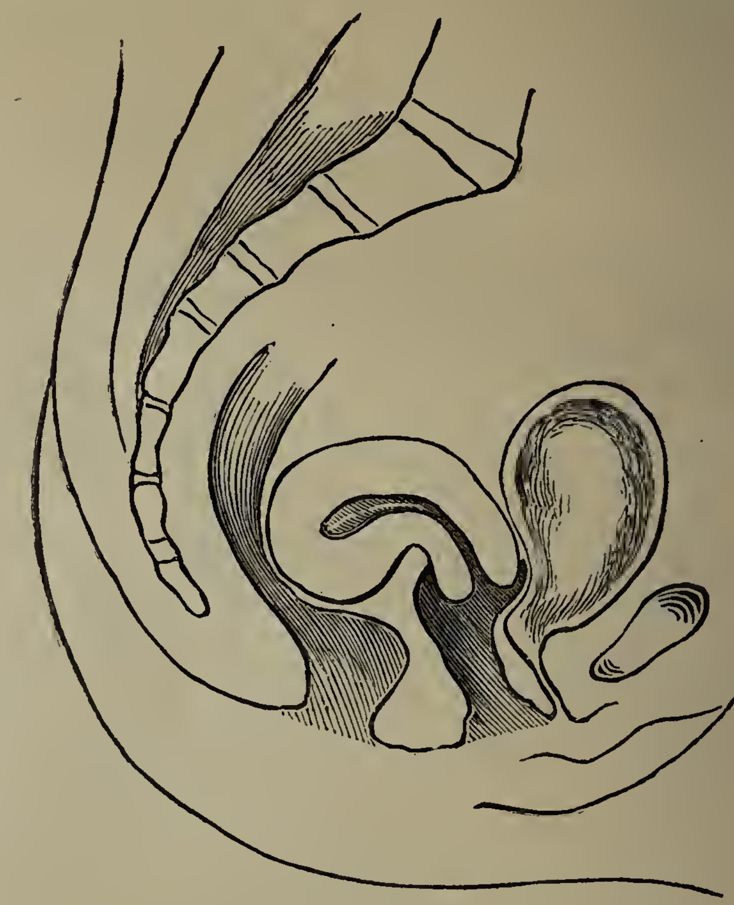

Fig. 3.

That the lameness is the result of the displacement is incontestably proved by the fact that the power of locomotion is always increased by restoring the uterus to its proper shape. In recent cases, the restoration in this respect is complete; but, in more chronic cases, the cure is more difficult, and the lameness more gradually disappears. These chronic cases of retroflexion are generally associated with an exceedingly tender condition of the fundus uteri, which can be felt by the finger behind the vagina, and the whole organ is in a state of congestion, or, as it may be termed, chronic inflammation. I am in the habit of terming this condition of the uterus in some of these cases one of "strangulation"; and such, indeed, it is, for the flexion of the organ may be so sharp and acute, that the circulation in the body or fundus of the uterus is materially obstructed; the effect being such as would be produced by placing a ligature round the uterus at its middle part. This it is which, in my opinion, gives rise to that extremely sensitive, tender condition of the fundus. It is certainly the fact, also, that the tenderness is very generally limited to the fundus, the os uteri being mostly painless to the touch. I have been very much assailed on account of a doctrine I have lately broached, that Dr. Gooch had these cases of retroflexion under his observation when he was describing what he termed the "irritable uterus". Such, however, I am convinced is the fact; and for me the "irritable uterus" means retroflexion of the organ. The inability to move about was a prominent feature of the cases alluded to by Dr. Gooch, and it is certainly the most prominent one in cases of uterine retroflexion.

There are other conditions of the uterus which may occasion lameness, and which must next be alluded to. In the foregoing cases, the uterus has been supposed to be altered as regards its shape by what may be termed an intrinsic cause. But we now and then find the uterus pulled over in this or that direction by the presence of fibroid growths. Thus, a fibroid tumour growing in the outer part of the wall of the uterus, on its anterior or posterior aspect, will have the effect of inclining the organ in one or the other direction, and thus there may ensue impairment of locomotive power. It is the result of my observation, however, that, unless the uterus be at the same time considerably bent, the discomfort due to these tumours, so far as locomotion is concerned—is ordinarily comparatively trifling.

It would be foreign to my object on the present occasion to consider how the various ailments above described are to be cured. That will form matter for consideration on a future occasion. My desire at this moment is, to impress upon you what has forced itself on me as a wide and comprehensive and true conclusion in regard to uterine disorders, that, when you meet with a case in which there is impairment of locomotive power, associated with uterine symptoms, the probability is very strong that, on careful examination, decided flexion and mechanical distortion of the uterus will be found to exist.

Let it not be supposed for a moment, that I deny the presence in many of such cases of other, and it may be important, changes in the state of the uterus, aggravating and increasing, as they often do, the original mischief; but my experience has taught me that they are, for the most part, secondary, not only in effect, but in importance. And it is, I believe, substantially true that, in nine cases out of ten, "uterine lameness" is due to flexion and analogous displacements of the organ.

Lastly, I would not have it supposed that I disregard the ovary in regard to the question of lameness. I have met with several cases in which difficulty in locomotion was connected with ovaritis in various forms and degrees; but, compared with uterine lameness, ovarian lameness is, I believe, comparatively rare.

ON THE USE OF ETHER AND ETHERISED COD-LIVER OIL IN THE TREATMENT OF PHTHISIS.*

By BALTHAZAR W. FOSTER, M.D., M.R.C.P.Lond.,
Professor of Medicine in Queen's College; Physician to the General Hospital, Birmingham; etc.

MODERN research is daily making it more certain that, under the term phthisis, we have hitherto grouped together a number of pathological conditions which differ essentially in their finer features. But, although the microscope and the scalpel have, for some time past, been busy in defining the distinctive characters of these different pathological conditions, the work is as yet so far unfinished, that, for convenience sake, we still include under the term phthisis many cases which the more accurate pathology and the more exact diagnosis of the future will enable us to differentiate. In this wide sense I use the term phthisis in this paper; and I have the less scruple in so using it, because I believe the diseases comprehended under this term have, as one of their earliest conditions—almost, I might say, as their essential primary phenomenon—a perverted nutrition, from which, as the *fons et origo mali*, all the later phenomena proceed. Errors of nutrition form the starting point in so many diseases, that it is not improbable we shall have to investigate the earlier phases of these nutritive disorders with more penetrating scrutiny, before we discover the subtle causes which determine the varied results of inflammatory cell-growth—to cite an extreme instance, to learn why in one case cancer and in another tubercle is produced.

The disorders of digestion, associated with pulmonary tubercle, have long been known to the profession, but it is only of late years that they have attracted special attention. Numerous independent inquiries have all ended by pointing to the difficulty of assimilating fat as the constant characteristic of the dyspepsia of phthisis; and statistical observations tell that, in at least 75 per cent. of consumptive patients, this defective assimilation occurs. Adding this fact to others, such as the early and rapid disappearance of the fat stored in the tissues, the development of the inability to digest fat, antecedent to the local lesions, and the marked improvement observed in patients when the digestion of fatty matter is restored, we have, I think, evidence strong enough, in the absence of any more precise indications, to demand that our first efforts should be directed to improve this state of defective assimilating power. Some years ago, Mr. Jonathan Hutchinson, writing on this subject said, "Exceptions undoubtedly do occur, but, as a general rule, it might probably be safely laid down that the severity of the tubercular dyscrasia is measured by the difficulty with which cod-liver oil is borne. The need for that remedy is mostly in exactly inverse ratio to the facility with which it is digested."

The greatest step made for many years in the treatment of consumptive patients was the introduction of cod-liver oil; and Dr. Hughes Bennett, to whom we owe this great boon, expressly states "that the great obstacles the practitioner has to contend with are the dyspeptic symptoms." In cod-liver oil was found a form of fat which could, in many cases, be digested even by the impaired organs of consumptives; but the next step, viz., the search after some means of augmenting the secretions which are specially devoted to the digestion of fatty matters, has been hitherto neglected or unsuccessful. To pour oil into a patient's stomach, without at the same time taking measures to ensure its digestion, has always appeared to me a crude kind of therapeutics. Its simplicity has, it would seem, recommended it to the routinist; for there is probably no single remedy used in any disease with so little preliminary inquiry into the conditions favourable to its action. Experimental physiology has taught us that the only fluids in the body which have the power of acting upon fat, so as to render it fit for absorption, are the secretions of the pancreas and the duodenal glands. To these secretions therefore, we must look for assistance in the treatment of phthisical patients by cod-liver oil, for on the action of these glands must the assimilation of the remedy depend. And such healthy action can scarcely be supposed to co-exist with the inability to digest fat, which is so frequent in the disease under notice. As Bernard has shewn, the chief of these glands (the pancreas) is most sensitive to nervous influences, ceasing to form a healthy secretion from very slight irritation, and even from emotional influences. This fact, taken together with our knowledge of the peculiar character of the dyspepsia of phthisis, justifies the assumption that the pancreatic secretion is disturbed. Not long since, Dr. Dobell, holding these views, made some experiments with pancreatic emulsions of fat and pancreatine, which supported this interpretation of the phenomena, and shewed that fat when emulsified is more readily digested than in any other form. In this paper I have, however, to propose a mode of treatment which should, I think, in all cases precede the use of such remedies as pancreatic emulsion, because it aims at remedying the disorder, not by artificially complementing the defective secretion, but by stimulating the glands to renew their healthy action. Instead of throwing into the system a substance which may be yet formed in physiological quantities, it endeavours to promote the normal flow of pancreatic juice.

The drug which gives us this power is *Ether*, and I now propose to lay before the meeting the evidence of its physiological action, and afterwards to speak of its therapeutical effects. I had long sought, and sought in vain, for some means of acting on the pancreas in the treatment of phthisis, till one day, two or three years ago, when reading Claude Bernard's elaborate investigations on the properties of pancreatic juice, I found the long looked for clue; stated, indeed, so simply, and brought out in successive observations and experiments so clearly, that it has ever since been a matter of surprise to me that no previous reader should have seen the importance of the facts to practical medicine. In the following extracts, I lay before you the evidence of our greatest living physiologist on the mode of stimulating the secretions of the pancreas. The first passage which arrested my attention was the following, which occurs in Bernard's *Leçons de Physiologie Expérimentale appliquée à la Médecine*, tome ii, p. 226. "The nervous influences which directly excite the secretion of the pancreas are much more difficult to determine than those which act on the salivary glands. In a dog, with a tube fixed in the pancreatic duct, I have galvanised the solar ganglion of the great sympathetic without a result, clearly shewing any modification of this secretion. *But I have seen ether introduced into the stomach determine soon afterwards a considerable flow of pancreatic juice.*" This statement was so clear and unmistakable, that I at once proceeded to search in Bernard's other works for its confirmation. From his *Leçons sur les Effets des Substances Toxiques et Médicamenteuses*, Leçon 29, p. 426, I extract the following: "I would remind you only of the influence of ether on the intestinal secretions. Ether is reduced to a vapour when introduced into the stomach, and may rupture it.* When, however, this accident does not occur, then may be noticed a vascular congestion of all the digestive tracts, but this congestion never attains to inflammation. At the same time, the secretions are rendered active and the rapidity of absorption is notably augmented. These last effects suffice to establish the non-inflammatory character of the congestion of the mucous membrane, for it is known that on an inflamed surface the secretions are dried up and absorption becomes more difficult....... The turgescence of the mucous membrane of the intestine, as well as the liquids secreted, present the same characters when produced by ether as when they are caused by their normal excitant—food. In comparing the pancreas of an animal, opened fasting, with that of an animal opened during the process of digestion, a great difference of colour, due to the difference of vascularity, is observed. After the administration of ether the pancreas becomes red and turgescent, as it is during digestion, and its secretory function is proportionally increased by the afflux of blood. I have accordingly been able to avail myself of this procedure to obtain pancreatic juice. Normally, this fluid discharges by drops more or less infrequent, but when a little ether is given to an animal having a pancreatic fistula, this discharge is seen to become more abundant, without the secreted liquid having lost any of its physico-chemical characters." Demonstrating these facts to his class, the Professor continues: "Here is a rabbit, upon which we will show you the increased secretion under the influence of ether. The pancreatic duct is laid bare, and into it there is introduced a small silver tube. The intestines of the animal are red and very vascular, and contain ether in vapour. The tube introduced into the pancreatic duct plainly gives passage to a very active flow of pancreatic juice, while under ordinary conditions the liquid only flows out drop by drop with an activity much less." In another place (p. 422) summing up the results of his experiments, and alluding first to the effects of ether in promoting absorption of fatty matters, he says:—"Finally, in our experiments, the injection of the lacteals is due to the abundance of the pancreatic secretion, and to the extremely fine state of division of the fatty matters which occurs in the intestine. It is due, also, to *the absorbing power having been augmented by the ether.* This activity of absorption has been observed in the case of several poisons. We have already mentioned that the combination of ether with poisonous doses of strychnia and nicotine produced death more rapidly in the animals on which we experimented. The action of ether introduced into the digestive organs is, therefore:—1. To stimulate all the intestinal surface. 2. To stimulate the secretions which are poured into the intestine. 3. To modify and decidedly increase the absorbing power." In a short passage (page 428), at the end of the experiments referred to above, the following passage occurs:—"Ether increases the absorption of fatty matter, which it places at once in a state of fine division, and in contact with a more abundant secretion of pancreatic juice. In this way it produces a very marked white injection of the lacteals."

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* Read in the Medical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

* This can only occur in those lower animals which have not the power of regurgitation.

If necessary, I might multiply these extracts still more, but enough has, I think, already been quoted from the works of our first experimental physiologist to teach us the physiological action of ether. This action is twofold: (1) it stimulates the pancreas and glands of duodenum to pour out their secretions freely, and (2), at the same time, it facilitates the absorption of those very substances which these secretions are designed to digest. In other words, ether not only obtains for us the secretions required to digest fats, but promotes the absorption of these fats when digested. Can any physiological action be more clear, or any experimental proof be more satisfactory for the end we have in view?

[*To be concluded.*]

THE RELATION OF THE SECRETION OF PHOSPHORIC ACID TO TEMPERATURE IN CERTAIN CONDITIONS OF THE NERVOUS SYSTEM.*

By E. L. FOX, M.D., Clifton.

In making careful observations on the temperature of the human body in health and disease, the question must constantly occur to every one: "Of what is this temperature the index?" We may assume that in the body the development of heat depends upon chemical agency; and many observations are being continually made by analysis of the excreta to connect the higher grades of temperature with increased secretion, or increased waste of tissue. It cannot be measured by the amount of carbonic acid excreted, as high temperature and increased number of respirations only exceptionally bear any direct relation to each other; nor can it be measured by the amount of urea excreted, since this varies according to the nature of the food; since, too, it is very doubtful whether the amount of urea is any measure of chemical change in nitrogenous tissues; and since temperature may fall at the time of large excretion of urea, as after the first few days of pneumonia, and may remain just the same with very variable amount of urea excreted, as in typhoid fever.

Another fact against the view that temperature of the body is an index of chemical change as measured by the excreta, is seen in the instances of chorea and diabetes mellitus. It is rare in either of these affections that the thermometer will much exceed 99 deg. Fahr., and yet in both the waste is considerable, and in diabetes may be excessively rapid and striking. In the face of these difficulties Claude Bernard long ago proposed the theory that animal heat was not due to combustion in the tissues, but to an acceleration of the passage of the blood through the tissues; and founded his opinion on the effects of galvanism of glands, and of division of the sympathetic nerve. Against this view, however, it may be stated that in many diseases temperature bears no relation to pulse, as in the first week of typhoid, in the last stage of typhoid in old people, in erysipelas, in remissions of temperature in acute phthisis, and in cerebro-spinal meningitis. Besides which, the fact that in some cases on record the temperature has become considerably elevated after death, proves that Bernard's theory fails to explain all phenomena on this subject.

Accepting, however, the theory that animal heat depends on chemical change within the body, and having no further expectation that excreted products will be found indices of its degree, we believe that the truth of the matter was expressed long ago by Grove in his essay on the Correlation of Forces:—"It may, however, be asked, what becomes of force when motion is arrested or impeded by the counter-motion of another body? This is generally believed to produce rest, or entire destruction of motion, and consequent annihilation of force; so, indeed, it may, as regards the motion of the masses; but a new force, or new character of force, now ensues, the exponent of which, instead of visible motion, is heat. I venture to regard the heat which results from friction or percussion as a continuation of the force which was previously associated with the moving body, and which, when this impinges on another body, ceasing to exist as gross palpable motion continues to exist as heat." And Donders says, in a terse sentence: "It is not sufficient to deduce only the heat developed from metamorphosis of matter; but, in addition, some other force—say work—must have its cause therein; and only when neither electricity, nor light—developed in some animals—nor mechanical power, which proceeds from all, was lost externally; when, therefore, all were changed wholly into heat, could the quantity of heat developed correspond to the oxidation of the organic matters."

If all the results, therefore, of the oxidation of organic matters could be collected and measured, they would be indices, not of heat only, but of force—force that may partially take the shape, so to speak, of heat, but may be expressed in some other form.

Force in the human body is shown mainly in work and in heat; and this work may be mechanical or intellectual, according to the nature of the chemical metamorphosis. In a word, whilst wholly deprecating all materialistic views, intellectual work is as much a result of chemical agencies, as any secretion. In the endeavour to illustrate this point I have taken a series of cases in which there has been some abnormality of the nervous system, and have first calculated the amount of phosphoric acid passed in the twenty-four hours. Although the tabulated results refer only to the urine, it may be allowed that, speaking generally, they include about four-fifths of the phosphoric acid excreted. The cases are taken somewhat at random from those ordinarily admitted into hospital. They are divided into those in which noisy delirium was a prominent symptom; those in which there was low delirium; and, lastly, those in which there was some nervous lesion without delirium.

FIRST SERIES.—IN WHICH NOISY DELIRIUM OCCURRED.

Highest Temp.	*Disease.*	*PO^5 in Urine in 24 hrs.*
$98\frac{2}{5}$	Morbus Brightii	30 grains
$98\frac{2}{5}$	Epilepsy from Alcohol	61
$98\frac{2}{5}$	Epilepsy	43·5
104	Typhoid Perforation	45·9
$102\frac{5}{5}$	Puerperal Mania	90
$100\frac{2}{5}$	Puerperal Mania	96
$98\frac{2}{5}$	Chronic Meningitis	43·5

SECOND SERIES.—IN WHICH LOW DELIRIUM OCCURRED.

102	Acute Tubercle of Peritoneum and Intestines: Diarrhœa	32.5
102	Typhoid	78
$98\frac{2}{5}$	Delirium Tremens	12
103	Delirium Tremens and Pneumonia [In Pneumonia, phosphoric acid is generally diminished]	96
102	Bright's Disease and Pneumonia	56.8
(No record)	Softening of Central Parts of Brain; Granular Kidneys; Tubercular Lungs	32·5

THIRD SERIES.—IN WHICH NO DELIRIUM OCCURRED.

$98\frac{2}{5}$	Slight Hemiplegia and Paralysis Agitans	34·5
$98\frac{2}{3}$	Fatuous Condition after prolonged Bathing	90
$98\frac{2}{5}$	Concussion after fall in Epileptic Fit	32.8
$100\frac{4}{5}$	Hemiplegia and Cerebral Softening	90
$98\frac{2}{5}$	Same case, later on	69.9
99	Chorea	74·5
98	Chorea, with Delusions	52
101	Traumatic Tetanus	35
102	Phthisis, with Delusions	59·9

Now, how does this temperature correspond to these excretions of phosphoric acid? In the first series, in which the PO^5 varied from 30 grains to 96 *per diem*, the temperature was not higher than that of health, except in the case of typhoid fever, and in puerperal mania in which, on one day, the thermometer stood at $102\frac{2}{5}$. In the second series the temperature was high in several cases, because the low delirium was simply an adjunct to acute diseases, pneumonia, acute tubercle, and typhoid fever. In the case of delirium tremens, in which only 12 grains of PO^5, were passed in the 24 hours, the temperature was $98\frac{2}{3}$. In the third series, in which no delirium existed, the temperature was normal, except in the acute stage of cerebral softening when it was 100_{1}; in chorea, 99; in traumatic tetanus, 101; and in phthisis, with extreme emaciation, in which it was 102 deg., with but slight increase of PO^5, of which it may be remarked that Beneke says that in all cases of tuberculosis with emaciation, the earthy phosphates are increased. Competent observers have decided that mental excitement and intellectual exertion increase the amount of urinary water, increase also the urea, chlorine, sulphuric and phosphoric acids, notably the latter, and lessen the amount of uric acid. Yet, in the six cases of our first series, the PO^5 was only decreased in two of the cases of low delirium, in which we can hardly speak either of mental excitement or intellectual exertion; increase of PO^5 occurred in three cases, one of which was delirium tremens; whilst of those in which no delirium existed, there was great increase of PO^5 in the case of fatuity, great increase in the case of hemiplegia, with acute cerebral softening, with the mind quite clear and calm, and considerable increase in the chorea; whilst in the case of phthisis the increase was small, although delusions of a most horrible character haunted the patient night and day, and made life a burden to her.

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* Read in the Medical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

It should be remarked that most of these cases were being fed on rather a low diet, including about twelve ounces of bread, one pint of fairly strong beef-tea, and about a pint of milk. The exceptions were the cases of phthisis and chorea, in which a meat diet was taken. Except the child suffering from traumatic tetanus, all the patients were adults. These observations tend to show that although a high temperature in cases in which delirium is a symptom, seems generally accompanied by an increased secretion of PO^5, we yet may have a great increase in the excretion of this substance without any exaltation of temperature.

In some cases, as in puerperal mania, the excretion of PO^5 may be an index of the delirium, *plus* the heat; whilst in others the PO^5 may be largely increased without any exaltation of temperature, without any delirium, or, indeed, as in the case of fatuity, without evidence of the existence of any mental function. Whether, however, this state of fatuity is a condition in which all mental function is in abeyance, or whether it is not, sometimes, at least, a condition of mental activity, in which the connection between thoughts and their external expression is broken through shock or disease, is beyond our present purpose. It is, therefore, probable, that the amount of PO^5 excreted bears no certain relation to the character of the delirium, except this, that in delirium, accompanied by hyperæmia of brain, as in acute mania, or the acute delirium of French authors, there is an increase in the amount of PO^5. In all other cases the relation seems wanting, although probably Dr. Bence Jones's observations on the diminution of PO^5 in delirium tremens, express a general, though not an universal truth; whilst the elevation of temperature depends upon such a vast number of complicated chemical actions—chemical actions that, under other circumstances, might produce work mechanical, or of some other kind, that any attempt to connect it with the excretion of one particular substance absolutely fails by experiment.

A PECULIAR FORM OF SCARLATINA.

By N. HECKFORD, Esq.,
Surgeon to the East London Children's Hospital.

I THINK it important to draw the attention of the members of our Association to my experience of a peculiar form of scarlatina lately prevalent in the eastern districts of London. In connection with the East London Children's Hospital, I have recently had under my care numerous cases which presented the following marked peculiarities. There was usually little or no febrile disturbance, often not sufficient to induce the mother to keep the child in bed. The rash was either altogether absent, or so slight, that no history of it could be obtained. The tongue did not exhibit its characteristic appearance. There was at first no accompanying sore throat; the submaxillary glands almost invariably inflamed, and, as a rule, the inflammation terminated in suppuration or sloughing. Indeed, it was for these "swellings in the throat" that the patients were often brought, the premonitory symptoms having been so slight as to escape notice. This condition was occasionally followed by a sort of diffluent diphtheritic exudation, which exceptionally ended in ulceration of the fauces. At a later period, and especially in fatal cases, a rash appeared over the trunk and extremities resembling a purplish roseola. The mortality was excessively high. The record of the following chain of cases, being in-patients of the hospital, will aptly illustrate the insidious and marked character of this form of scarlatina.

CASE I.—Six weeks before admission, a boy, aged three years, living in a small street in which scarlatina was rife, was attacked with what was thought to be febricula; there was no sore throat or rash; the submaxillary glands inflamed and sloughed; the inflammation eventually greatly subsided, and matters promised well, but two deep sinuses, discharging a thin sanious pus remained. One night, at the end of this time, profuse venous hæmorrhage took place. Pressure by means of a compress saturated with a solution of perchloride of iron, arrested the bleeding for two days, when it recurred, and again also on the fifth day. By this time the child had become quite blanched, and delirium traumaticum manifested itself. At this juncture I laid open the sinuses into one opening, and at the bottom of the wound, which was deep and sloughy, I found the blood issuing from a large vein, either the internal jugular or the internal maxillary. The jet was equal in size to a pigeon's quill. I determined to ligature the common carotid; but, being at the moment single-handed, I tightly plugged the wound with cotton-wool soaked in the perchloride, and directed manual pressure to be kept up. Soon afterwards, Mr. Buxton Shillitoe saw the case with me. The hæmorrhage having been completely checked, we resolved to give digital pressure a trial. This was continued without intermission for sixteen days. On the third a few drops of blood escaped, but on no other occasion. The plug was renewed every second or third day. Not long afterwards, the boy was discharged cured.

CASE II.—Three days after the admission of the above case, a strumous child, in the same ward, had an attack of typical scarlatina, sore throat, rash, "strawberry" tongue, etc. It died of dropsy and albuminuria.

CASE III.—Before the symptoms in the second case had unequivocally declared themselves, and the coming evil not being suspected, a boy, aged 8 years, was cut for stone by Mr. Shillitoe. Forty-eight hours after the operation it was evident that he, too, had scarlatina. He had high fever and a rash, but no sore throat. He made a most satisfactory recovery.

CASE IV.—A boy next to the above, also suffering from stone, but waiting for operation, went through a well-marked form of the disease.

CASE V.—A girl, aged five years, admitted for infantile paralysis of one leg, was apparently doing very well. For two or three days her appetite fell off, but she soon seemed to regain her usual status. However, as her face looked somewhat puffy, her urine was examined, and found to be highly albuminous. On the evening of the day this was discovered, having eaten her meals heartily, she vomited soon after going to bed. This was followed by urgent dyspnœa and sudden death. At the *post mortem* examination, both pleuræ and the pericardium were found filled with fluid.

CASE VI.—A stout healthy-looking girl (having hydatid of the liver), who, in common with the preceding case, had not been obliged to keep her bed for a single hour, was attacked with sudden and severe albuminuria. The only premonition was loss of appetite for a few days. She did not have dropsy, and is now well, excepting as regards her liver.

CASE VII.—This was a similar one to the two former, but the albumen was not copious.

OBSTETRIC MEMORANDA.

LACERATION OF VAGINA.

By A. B. STEELE, Esq., Lecturer on Midwifery, Liverpool Royal Infirmary School of Medicine.

I WAS summoned by a midwife to a woman, the mother of several children, who had been in labour for a few hours, all apparently going on well until just before I was sent for, when the pains ceased suddenly, and were replaced by a continuous sharp lancinating pain in the abdomen, the patient at the same time becoming very faint and sick, leading the midwife to suspect that rupture of the uterus had taken place. There was no unusual hæmorrhage. I found the woman in a state of incipient collapse; and, on examination *per vaginam*, the head low in the pelvis. I at once applied the forceps and delivered a living child in a few minutes and with very slight traction; the placenta followed immediately, with no more than the ordinary amount of discharge. On introducing my hand after delivery was completed, the uterus was found intact and moderately contracted; but in the situation of the posterior *cul-de-sac* of the vagina, was a rent large enough to admit easily the hand, which was readily passed along the posterior surface of the body of the uterus, and the convolutions of the intestines could be distinctly felt. The patient was carefully watched, opium was given freely, with stimulants, until reaction was established; and she gradually recovered without a bad symptom. The woman had been ill treated by her drunken husband, who, about a fortnight before labour came on, had kicked her violently in the back, which may possibly have caused the injury, although it is singular that so long an interval should elapse before the mischief manifested itself. The facility with which the forceps were used, and still more conclusively the pre-existence of symptoms of serious lesion before their application, show that the injury did not occur during delivery.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 21ST, 1868.

FINANCIAL NOTICE.

MEMBERS WHO HAVE NOT YET PAID THEIR ANNUAL SUBSCRIPTIONS FOR THE CURRENT YEAR 1868, ARE REMINDED THAT THE WHOLE YEAR'S SUBSCRIPTION OF ONE GUINEA BECAME DUE IN JANUARY LAST, AND THE SPECIAL HALF-YEAR'S SUBSCRIPTION OF HALF-A-GUINEA IN JULY LAST. DURING THIS INTERVAL, THE JOURNAL HAS BEEN SUPPLIED WEEKLY TO MEMBERS, AND THE POSTAGE PAID. IT IS RESPECTFULLY REQUESTED THAT THE SUBSCRIPTIONS DUE BE TRANSMITTED WITHOUT DELAY TO THE LOCAL SECRETARIES, OR TO T. WATKIN WILLIAMS, ESQ., GENERAL SECRETARY, 13, NEWHALL STREET, BIRMINGHAM.

MEDICAL POLITICS.

We believe that a very good effect has been produced by the address issued by the Committee of Council and the Oxford Committee of the Association, which we lately printed, urging the Branches and members of the Association to press members seeking election to promise support in obtaining direct representation in the Medical Council; and this effect is likely to be translated into vigorous collective and individual effort. The Birmingham and Midland Counties Branch has passed the following resolution. "That this meeting cordially approves of the course taken by the Committee of Council, and by the Committee appointed at the Oxford Meeting, towards securing the direct representation of the profession in the General Medical Council; and this meeting urges upon the members of the Branch to give their earnest support to the movement." Mr. Clayton of Birmingham, moreover, has obtained favourable responses to communications which he has made to several of the borough and county candidates on the subject. Dr. T. Joyce of Rolvenden forwards to us similarly favourable responses on the part of Mr. Hart Dyke and Lord Holmesdale. The Metropolitan Counties Branch Council have met this week in order to take action upon the subject.

At a meeting of the Committee of the Sydenham District Medical Society, held on Tuesday, November 10th, it was unanimously resolved that a deputation from the Society be appointed to call upon each of the candidates for the representation in Parliament of West Kent and East Surrey, and solicit from them answers to the following questions. 1. Will you, if returned to Parliament, vote in favour of any measure which would have for its object the more direct representation of the profession in the General Medical Council, by enacting that a certain proportion of the members of the Council shall be elected by the direct suffrage of registered medical practitioners? 2. Will you, if returned to Parliament, vote in favour of any measure which would have for its object an improvement in position and an increase in emolument of the medical officers of the army and navy? 3. Will you, if returned to Parliament, endeavour to improve the constitution of the Poor-law Board, by promoting the appointment of members competent to devise and carry out a more uniform, adequate, and efficient system of medical relief to the sick poor? 4. Will you, if returned to Parliament, vote in favour of any measure which would secure for the Poor-law medical officers of the United Kingdom an improvement in position, adequate remuneration, and retiring pensions, to those who are superannuated or disabled in the service? To each of the above questions, an affirmative answer has been cordially given by the candidates (Conservative) for West Kent, Mr. C. H. Mills and Mr. J. G. Talbot.

THE GENERAL MEDICAL COUNCIL AND MEDICAL EDUCATION.

Some important business, in respect to educational matters especially, has been delegated to the Branches of the General Medical Council, and as this is the time at which they are in course of meeting, it may be well to review it. Among the resolutions in the Minutes (vol. vi, p. 259) is one to the effect that it be remitted to the Branch Councils to consider and report how far it would conduce to a more efficient and satisfactory system of conducting the examination of students in preliminary education, if a Board were appointed by the General Medical Council, or by each Branch Council, to arrange and conduct, under their supervision, these examinations; and that, should the Branch Councils approve of such a system, they be requested to indicate any difficulties which may stand in the way, and the method by which they would propose to carry it out. The reports to be transmitted to the Executive Committee at least one month before the next Session of the Council.

Elsewhere it is further resolved that the Branch Councils be requested to make arrangements for visiting and reporting on such preliminary examinations as have not already been visited, and regarding which it may appear to them desirable to procure information. That the reports made on these examinations be transmitted in the usual manner to the Executive Committee for the consideration of the General Council at their next Session. And, again, by another resolution, the Branch Councils are instructed to consider and report how far it be desirable to add some knowledge of the elements of logic to the preliminary examination of the medical student, and, if considered desirable, how it could best be carried out.

In carrying out these resolutions the Branch Councils will, no doubt, steadily hold in view the desirability of enforcing the existing standard of preliminary education and examination. That would, we believe, be greatly advanced by the establishment of a common Board of Arts examination, instead of leaving each medical corporation to carry out at its own sweet will a system of arts examinations which is, in many instances, notoriously of a very low and insufficient standard.

HEALTH OF THE NAVY.

No. I.

The Statistical Report of the Health of the Navy for the year 1866 has just been published. The volume has assumed dimensions considerably larger than those of any of its predecessors, and appears proportionately full of valuable and interesting information, highly creditable to the professional attainments and scientific knowledge of the members of that department of the public service from whose labours it has been compiled. This volume is not distributed to the members of the service, as is the army blue-book; but it contains matter of imperial interest, which ought not to be left entombed.

The statistical nomenclature introduced by the Registrar-General for the returns of the civil population, and adopted in the army since 1859, has never been employed in the navy; so that accurate comparison as to the prevalence of the various classes of disease in the two services cannot very well be made. This difficulty, however, will soon cease to exist, as the new nomenclature of disease lately published by the Royal College of Physicians of London is to be employed in both army and navy from January 1st, 1869.

It is gratifying to find that, although diseases of a very fatal character were epidemic on most of the stations on which vessels of the Royal

Navy were employed during 1866, there has been, compared with the preceding year, a reduction in the ratio of cases entered on the sick-list and of deaths. There was a trifling increase in the ratio of invaliding. The total force of the service afloat was 49,475; but, in estimating the number of cases placed on the sick-list, it is taken at 48,775—a reduction of 700 men being made for the gun-boats in China and elsewhere, which, for want of accommodation, carried no medical officer, and from which, in consequence, no reliable return of cases could be obtained. The full force is taken in computing the invaliding and death rates. The following table, compiled from the returns, shows the results for 1866, as compared with the preceding year.

	Ratio per 1000.	Corresponding with preceding year. Decrease per 1000.	Corresponding with preceding year. Increase per 1000.
Cases of disease or injury	64,064	1313.4	54.8
Deaths: From disease	323	7.9	1.1
From wounds, injuries, and drowning	116	2.3	
Invalided	1698	34.3	— 1.4
	2207	44.5	·3

Each case was, on an average, 14.3 days under treatment; and the total days' sickness, divided amongst the total force, gave an average of 18.5 days' sickness to each man. In 1865, the average was 17.5.

The number of cases of disease and injury per man on the Home Station was .9; on the Mediterranean, 1.4; North America and West Indies, 1.4; South-East Coast of America, 1.5; Pacific, 1.7; West Coast of Africa, 2; Cape of Good Hope and East Indies, 1.8; China, 1.4; Australia, 1.4; and in the Irregular Force, 1.5—making an average of 1.3 for the total force, which is the same as obtained in the preceding year.

The lowest sick-rate was on the Home Station, the mean daily sick being 42.2; the highest was on the West Coast of Africa, where the mean daily sick amounted to 72.1. The average sick-rate of the total force was 50.7 per 1000; in 1865, it was 53.3.

As compared with the preceding year, the only stations in which there was a reduction in the ratio of invaliding were North America and the West Indies, and the West Coast of Africa. The greatest reduction—4.4 per 1000—occurred on the former station; and the greatest increase—9.4 per 1000—on the ratio of invaliding, on the Cape of Good Hope and East Indies Station. The lowest rate of invaliding was on the Australian Station, where it amounted to 24.4 per 1000. The highest was on the West Coast of Africa, and was 79.7 per 1000. On the Home Station, the ratio was 26.1 per 1000.

An increase in the death-rate occurred on the Home Station of .9 per 1000; on the Pacific, of 1.5 per 1000; on the Cape of Good Hope and East Indies Station, 6 per 1000; Australia, 4.3 per 1000; and in the Irregular Force, 2 per 1000. The largest increase was in the Cape of Good Hope and East Indies, and was entirely attributable to two epidemics which occurred in the *Octavia*, of small-pox in March, of which there occurred 165 cases and 6 deaths during the year; and of fever in July, August, and September, of which there were 339 cases, 166 being classed as febricula, and 173 as remittent fever, of which some assumed the typhoid character; of the latter, 8 proved fatal. The details of these epidemics, by Surgeon Doyle M. Shaw, are of great interest, and will be more fully noticed hereafter. The death-rate on the Home Station from disease alone was 6.4 per 1000, and from violence 1.6; on the Mediterranean Station, from disease 4.1, from violence 1.2; North America and the West Indies, from disease 6.8, from violence 3.3; South-East Coast of America, from disease 6.6, from violence 1.6; Pacific, from disease 5.8, from violence 2.9; West Coast of Africa, from disease 23.2, from violence 2.8; Cape of Good Hope and East Indies, from disease 16.7, from violence 4.3; China, from disease 14.7, from violence 4.1; Australia, from disease 9.3, from violence 5.6; and in the Irregular Force, from disease 6.6, from violence 2.3.

As compared with the preceding year, there was a reduction in the death-rate on the Mediterranean Station of 2.8 per 1000; on the North American and West Indian Station, 2.4; South East Coast of America, 3.1; West Coast of Africa, 22.1; and China, 4.3.

Two thousand nine hundred and ninety-five cases of continued and remittent fever were treated, being in the ratio of 61.4 per 1000 of mean force, and showing a decrease of 17.1 per 1000, as compared with the preceding year. Of these, 60 (or 1.2 per 1000) were invalided, and 48 (or .9 per 1000) died; being 12.2 per cent. of the deaths from disease, or 9.4 per cent. of the deaths from all causes. The West Coast of Africa, as usual, gives the highest admission-rate from these causes—308.9 per 1000; the deaths having been 2.9 per 1000. The Cape of Good Hope and East Indies gave admissions 229.1, and deaths 4.8, per 1000, being the highest death-rate from these causes. The mortality, however, was almost entirely confined to one ship, the *Octavia*.

There were 41 cases of yellow fever, 34 of which terminated fatally: 11 cases and 9 deaths on the North American and West Indian Station, and 30 cases, causing 25 deaths, on the West Coast of Africa, where it was almost entirely confined to one vessel, the *Bristol*. It is considered more than probable, from the fact of the mortality being out of all proportion with what is ordinarily known as the death-rate in yellow fever, that many other cases of a febrile nature, which occurred in the vessels in which yellow fever appeared, were in reality only modifications of that fever; and that only those cases which proved fatal, or nearly so, were returned under the heading of the more deadly disease.

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Dr. Walter William Miller has been elected Mayor of Eye for the fifth time.

Dr. Embleton has been reelected as the representative of the University of Durham in the General Medical Council.

At the meeting of the Medical Society of London, on Monday evening next, Dr. Kelburne King, of Hull, will read a paper on Carbolic Acid and the Antiseptic Treatment in Surgery.

Dr. T. Henry Greene is appointed to do the duties of the officership of Health for St. Pancras until the end of April next; and meantime it is, we believe, possible, that some changes in the duties and emoluments of the office may be made by a committee of the Guardians.

The second annual meeting of the St. Andrew's Medical Graduates Association is announced for Thursday, December 3rd. The President will open the proceedings with an oration, and in the evening there will be a dinner at Willis's Rooms.

We are requested by the Publishers of the *Quarterly Journal of Microscopical Science* to state that that Journal will continue to be published as usual by the Messrs. Churchill, and edited by Dr. Lankester and Mr. E. Ray Lankester. The only change consequent upon Dr. Lankester and Professor Busk ceasing to edit the Transactions of the Royal Microscopical Society, will be that the Transactions of that Society will not be published separately in the pages of the Journal.

THE MEDICAL TEACHERS' ASSOCIATION.

The first meeting of this Association for the present session was held on Monday evening in the Board-room of the Middlesex Hospital; John Simon, Esq., F.R.S., in the chair. The officers proposed, of whom we gave a list last week, were unanimously elected. The Council presented a long Report, drawn up in accordance with instructions given at a general meeting of the Association on March 23rd, on the present obligatory conditions of study for the medical profession, and on the constitution and relations of medical schools. A portion of it only was discussed, and its further consideration was adjourned to an early date; it being understood that it should be referred back to the Council with such suggestion as might arise in the course of discussion. At the close of the proceedings, Mr. Charles Hawkins proposed a vote of thanks to the late President, Mr. Simon, for the care, discretion, assiduity, and ability, with which he had performed the duties of his office. The resolution was carried by acclamation, and was briefly acknowledged by Mr. Simon.

THE ROYAL SOCIETY.

THE following is the list of Fellows of this Society nominated for the different offices and seats in the Council on the 30th instant; namely, *President*—Lieut.-General Edward Sabine. *Treasurer*—Dr. W. A. Miller. *Secretaries*—Dr. W. Sharpey and Professor G. G. Stokes. *Foreign Secretary*—Professor W. H. Miller. *Other Members of the Council*—Mr. F. A. Abel; *Sir B. C. Brodie, Bart.;* Dr. W. B. Carpenter; Mr. J. Lockhart Clarke; *Mr. Frederick Currey; Mr. Warren de la Rue; Sir William Fergusson, Bart.*; *Mr. W. H. Flower;* Capt. Douglas Galton; Mr. J. P. Gassiott; *Mr. John Hawkshaw; Mr. John Marshall; Mr. Joseph Prestwich; Captain G. H. Richards; Mr. Archibald Smith;* and Lieutenant-Colonel Alexander Strange. Those gentlemen whose names appear in *italics* were not members of the last Council.

THE MEDICAL CLUB.

AN adjourned General Meeting was held at the Club on Friday, November 13th, 1868, Sir William Fergusson, Bart., in the chair. The following Report of the Committee and the New and Amended Rules were unanimously adopted.—"The Committee report, that as the Club was originally started on the express understanding that the members should not be liable for any debts incurred in carrying it on, they are advised that this principle cannot be departed from without entirely changing the constitution of the club, and they strongly recommend that no alterations should be made in this respect." *New and Amended Rules.*—1. A general meeting of the members shall be held at the club house, on the second Wednesday in October in every year. Any member having a proposition to make at the said meeting, must send in the same, signed, to the Honorary Secretary, twenty-one days prior to the day on which the meeting is announced to be held, so that due notice thereof may be given. 2. The Committee may, whenever they think fit, and they shall, upon a requisition made in writing by not less than ten members, convene an extraordinary general meeting. 3. Any requisition made by the members shall express the object of the meeting proposed to be called, and shall be left at the Club-house, addressed to the Honorary Secretary. 4. Upon receipt of such requisition the Committee shall forthwith proceed to convene an extraordinary general meeting, to be held at the Club-house. If they do not proceed to convene the same within twenty-one days from the date of the requisition, the requisitionists or any other members, amounting to the required number, may themselves convene an extraordinary general meeting. 5. Seven days' notice at the least, specifying the day and hour of holding any such extraordinary meeting, and the nature of the business to be transacted thereat, shall be given to each member by circular sent through the post, and such notice shall be deemed to have been given when posted. 6. The Committee shall consist of eighteen members. The present members shall continue in office until the next general meeting. At the next and every subsequent general meeting, one-third of the members of the Committee for the time being shall retire in rotation, but be eligible for re-election. At the first meeting after their election the Committee shall appoint one of their number as Chairman. 7. The members at the general meeting shall elect by ballot a like number of persons to fill up the vacancies caused by such retirement as aforesaid. 8. Any casual vacancy occurring in the Committee may be filled up by the remaining members thereof if they so think fit, but any person so chosen shall retain his office so long only as the vacating Committeeman would have retained the same if no vacancy had occured. 9. The Committee shall have power from time to time to make such bye-laws as shall appear to them necessary for the good government of the Club, the same to be confirmed at the next general meeting. To enable the Committee to make arrangements for the continuance of the Club without increasing the subscriptions of the original members or rendering them liable for any debts that might be incurred in carrying it on, it was decided to establish a guarantee fund for the next two years to meet any excess of expenditure over income that might arise. A list of the subscribers to the guarantee fund was presented, and included 125 names, representing about £300.—Several members expressed a confident opinion in the continued success and prosperity of the Club. It was unanimously resolved to make it in every respect worthy of the profession, and as soon as possible to put it upon a much more enlarged basis, either on the principle of the ordinary committee clubs or under the provisions of the Joint Stock Companies Act. A vote of thanks to the Chairman was carried by acclamation.

COLLEGE OF SURGEONS.

THE new regulations with regard to the examination of candidates for the membership of the Royal College of Surgeons came into effect on the 14th instant. A paper on Medicine, as well as the usual one on Surgery, was set, containing two questions on diseases, and one on the composition and doses of some of the ordinary drugs in the *British Pharmacopœia*. At present it is not essential for a candidate to take up both papers, but he may postpone the examination in medicine to any future time; unless, however, he take up both subjects, he cannot receive the diploma to practise, nor call himself a member, if he be not previously qualified in medicine. It is at present, perhaps, hardly fair to expect men to go up in both subjects at the same time, as some of the candidates may not be prepared sufficiently; but it will much enhance the value of the diploma, if next year the Council should make it compulsory to be examined in medicine as well as surgery at the same time, as the amount of knowledge expected is not great, and many who can just manage to pass by dividing the examination, would fail if required to take up the whole. The real value of a diploma must depend, not on making the path easy to travel, but by supplying a fair test, and expecting the candidate to come up to it.

HAIR AND HAIR DYES.

THE attention which we called some time since to the new and perfect black hair dye which Dr. Mc'Call Anderson lately incidentally hit upon, produced a long series of commentaries from accomplished dermatologists and others, well qualified to speak on the not uninteresting subject. Mr. Erasmus Wilson, a leader amongst the professors of dermatology, now enters upon and discusses the whole question in a series of very interesting observations in the *Journal of Cutaneous Medicine.* He observes, that the hair owes its property of dyeing to its porosity; which is evidently greater than its physiological structure would lead us to infer. Another of its properties, namely, the presence of sulphur in its constitution, renders it prone to darken under the use of certain mineral substances; for example, lead and mercury, whose compounds with sulphur are black. Thus if a weak solution of lead or mercury be brushed into the hair, a certain quantity of the solution will penetrate the hair, and a dark colour will be produced in consequence of the formation of a sulphuret of lead or sulphuret of mercury. The depth of the shade of colour will depend upon the quantity of sulphur present in the hair, and as red hair and light-coloured hair contains more sulphur than dark hair, the result will in that case be comparatively greater. But where the amount of sulphur is too minute to produce the dye, science suggests the means of introducing more sulphur, as is illustrated, by a reversal of the process, in the following quotation from a paper by Dr. M'Call Anderson on ekzema marginatum. "During the treatment I accidentally discovered what promises to be the most perfect black dye for the hair which has been seen. After having used the bichloride lotion for some weeks, I changed it for the lotion of hyposulphite of soda; and the morning after the first application, the hair of the part which before was bright red, had become nearly black. One or two more applications rendered it jet-black, while neither the skin nor the clothing was stained. I saw this patient a couple of weeks later, and there was not the least deterioration of colour; although, of course, as the hair grows the new portions will possess the normal tint." The reason of the escape of the epidermis, while the hair was so thoroughly dyed, is that it contains no sulphur. Mr. Balmanno Squire, in a commentary on the above process, observes that if instead of the hyposulphite of soda one of the more common mordants be employed—say, for example, the sulphide of ammonium, "instead of a black, a bright red colour will result. The *modus operandi* of Dr. Anderson's dye is this. The hyposulphurous acid, on being liberated from the soda, decomposes into sulphurous acid and sulphur. The sulphurous acid reduces the bichloride of mercury to the chloride, and the sulphur converts the chloride into (black) sulphide. The effect of sulphide of ammonium on bichloride of mercury is to produce the (red) bisulphide which is the common vermilion of commerce." Another commentator on "hair dyes" observes that, with the barbers the "sheet-anchor appears to be lead and lime." And again it is recommended to "first wash the hair with a solution (ten grains to the ounce) of nitrate of silver; then use a weak solution of pyrogallic acid, and wash." An interesting article on the subject, from the pen of an able chemical writer, Dr. Scoffern, may be found in the May number of *Belgravia*, under the head of "Cosmetics for the Hair." Dr. Scoffern reminds us that the Persians employ indigo to procure a blue-black dye, and the Turks and Egyptians a "pasty writing-ink," composed of pyrogallic acid in combination with a native ore of iron, while in the West the chief constituents of hair-dyes are metallic bodies and walnut-juice. The metals chiefly in use as "capillary chromatics" are silver, lead, and arsenic; while others applicable to a similar purpose are gold, bismuth, iron, copper, cadmium, titanium, uranium, and molybdenum. Lead, in its crudest form, is represented by the leaden comb; but as the process by this means is slow, a compound of oxide of lead or litharge, with lime, and made into a paste with water, is more commonly employed. This is smeared on the hair at night, the evolved gases being imprisoned by an oil-silk cap, and in the morning the dried paste is brushed out, and the hair refreshed with pomatum. Or, if a so-called brown, a "smothered" or "fusty black" be required, the paste should be mixed with milk instead of water. The night is preferable for these remedies, because the hair is supposed to exhale more sulphur at this period than during the day. These preparations remind us of a lotion in common use at the present time, consisting of a drachm of acetate of lead with twice the quantity of sulphur to half a pint of water. The nitrate of silver is another common form of dye, but is open to the objection of staining the skin, and, in fact, everything it touches, and also of becoming iridescent on exposure to light, producing, as Dr. Scoffern observes, a "chromatic play of tints," which is very undesirable. Bismuth presents the same characteristics as lead, but is not much used; and when iron is employed to produce a black tink, it requires for its mordants either the pyrogallic acid or the hydrosulphate of ammonia. Brown is produced by the chloride of gold alone, as also by a solution of sulphate of copper with a mordant of the prussiate of potash (ferrocyanide of potassium); and titanium, uranium, and molybdenum, judged by their chemical behaviour, would give rise to similar results. The "golden yellow colour," so much in fashion of late, is produced by a solution of arsenic with a mordant of the hydrosulphate of ammonia. And cadmium would probably give rise to a similar result. In the case of dyeing the lighter tints, however, it becomes necessary to submit the hair to a process of bleaching, which is commonly effected by a solution of one or other of the alkalies, by chlorine, by the chloride of soda or lime, or by sulphurous acid, bisulphate of magnesia or lime, or peroxide of hydrogen. In general, the dyes requiring mordants do not stain the epidermis.

TOYS FOR WORKHOUSE CHILDREN.

MR. SUMMERS HUTCHINSON has generously sent two large cases of toys, of the value of between £6 and £7, for the amusement of the children in the Farnham Workhouse. We know of many a workhouse in which the children have no toys whatever; and in one which we lately visited, even if they get hold of a few physic bottles or patchwork to play with (as they do occasionally), they are taken away, and the poor children are left to amuse themselves as best they can, within the four walls of a small playground when the weather is fine, and at other times in their ward, where they are not allowed to romp and make a noise. Amusement is as necessary as food and clothing for children; the want of it stunts both body and mind. The subject affords scope for inquiry; and if it should be found that a few toys would relieve the monotonous and cheerless existence of pauper children, numbers of people would be found to imitate the example we have mentioned.

THE BLACK HOLE OF CALCUTTA.

IT is said that the Black Hole of Calcutta has been at length discovered. No one has hitherto been able to ascertain the exact position of the dungeon where so many of our countrymen perished in 1756. Conjecture pointed to a spot in the southern curtain of the old fort of Calcutta, which is now being pulled down; and here a space, the exact counterpart of the Hole, has been discovered by Dr. Norman Chevers, who has been on the outlook for the place for some years.

UNIVERSITY OF LONDON ELECTION.

IN a half-finished room in the new University building, the members of Convocation met on November 17th, and returned Mr. Lowe as their first representative in the Reformed Parliament. The Vice-Chancellor (Mr. Grote), who acted as the returning officer, made a few remarks on the history and present position of the University, and congratulated the members on this the first occasion of exercising the franchise. Dr. Carpenter then read that part of the Act of Parliament which related to University elections, and the notice which convened the meeting. Mr. Julian Goldsmid, M.P., proposed, and Dr. Quain seconded, the nomination of the Right Hon. R. Lowe as a member to serve in the ensuing Parliament. No other candidate being proposed, the Vice-Chancellor declared Mr. Lowe to be duly elected, amidst loud cheering. Mr. Lowe then came forward, all the graduates rising to their feet, and thanked those present for the honour they had done him. Referring, at first, to the circumstances under which he came forward, he entered then into detail on the political aspect of affairs, and, in an eloquent speech which lasted more than an hour, gave his views on the more important questions of the day, dealing chiefly with the subjects of education, reform, the Irish Church, and political morality. There are at present about 1186 graduates on the list of Convocation; but this by no means includes all those who have taken their degree, as many have not paid their fee.

MURDEROUS ASSAULT UPON A MEDICAL MAN.

A PATIENT of Dr. Hunter of Lynn, named Colman, a young man, aged 22, very much emaciated, being under the delusion that Dr. Hunter had been administering poison which was eating away his vitals, went to Dr. Hunter's house on Friday in last week, and attacked him with a poker, striking him on the head several times, causing fearful wounds, and bending the poker almost double. He then sprang through the window, smashing both framework and glass, and ran off, but was soon secured.

SCOTLAND.

AT a large and influential meeting of the medical practitioners of Ayrshire, held at Ayr on Thursday, the 12th instant; Dr. Gray, of Irvine, in the chair, it was proposed by Dr. MacDonald, of Ayr, seconded by Dr. Campbell, of Maybole, and resolved unanimously, that an association be formed, under the name of the Ayrshire Medical Association.

THE election of Lord Rector of the University of Glasgow took place on Monday. Lord Stanley had a majority of 15 over Mr. Robert Lowe; but as the "nations" were, however, equally divided, the casting vote will have to be given by the Chancellor, the Duke of Montrose, who, it is believed will decide in favour of Lord Stanley. Would that the absurdity of voting by "nations" were swept away.

A CORRESPONDENCE is published by Mr. Campbell Swinton's committee, in which Dr. Richardson denies the accuracy of a statement published in a contemporary, that to Dr. Lyon Playfair's exertions was due the franchise of the medical graduates of St. Andrew's. Dr. Richardson claims it for the Graduates' Association, of which he is the President.

THE election of Lord Rector for the University of Edinburgh took place on Saturday, November 14th. Mr. Moncreiff was returned by a majority of 182 votes. There were at first three candidates put forward—Mr. Moncreiff, Mr. Lowe, and Mr. Ruskin. Mr. Lowe had declined to oppose Mr. Moncreiff, and his name was withdrawn early in the day. At the close, Mr. Moncreiff had 607 votes, and Mr. Ruskin 425.

NOMINATION FOR THE UNIVERSITIES OF ABERDEEN AND GLASGOW.

MR. MONCREIFF and Mr. Gordon were nominated on Thursday for the Universities of Aberdeen and Glasgow. A poll was demanded.

THE LORD PROVOSTSHIP OF EDINBURGH.

MR. CHAMBERS has, we are happy to state, consented to hold the office of Lord Provost a second time. This decision is, we doubt not, largely due to the influentially represented wish of the medical men of Edinburgh, to which we lately alluded.

UNIVERSITY OF ABERDEEN.

AT a meeting of Registration Appeal Court held on November 14th, about sixty appellants were refused admission to the register, it having been ruled that the words "regular attendance on the course of study for four complete sessions" in the University Act implied that the full curriculum must be attended, and not one class for each session.

UNIVERSITY OF ABERDEEN.

DR. PIRRIE, Professor of Surgery, has, we believe, intimated his intention of awarding a prize of ten guineas to the best senior, and also to the best junior, student in his class during the present session. These are quite irrespective of University prizes or certificates.

UNIVERSITY OF ST. ANDREW'S.

MR. JAMES CLERK MAXWELL, M.A. Cantab., F.R.SS.L. and E., formerly Professor of Natural Philosophy in Marischal College, Aberdeen, and Kings' College, London, is a candidate for the Principalship of the United College in the University of St. Andrews, about to become vacant by the resignation of Principal Forbes. Professor J. C. Shairp is also a candidate for the office.

WORKING MEN REPRESENTATIVES AT THE ROYAL INFIRMARY, ABERDEEN.

THE *Aberdeen Free Press* says that the Committee of Management are ready to recommend for election as managers during the ensuing year any three representatives the working men may appoint, in virtue of donations from their body to the hospital funds. This liberal and just measure is, we are sure, calculated to increase in every way the interest taken by the working classes in an institution to which they owe so much.

EDINBURGH AND ST. ANDREW'S UNIVERSITIES.

THE nomination of candidates took place on Tuesday, November 17th; Professor Christison, Acting Vice-Chancellor, presiding. Professor Syme proposed Dr. Lyon Playfair. The University, in claiming a candidate, had never asserted any right to interfere with politics; but desired to have in Parliament a person intimately acquainted and connected with their interests, and capable of affording a full communication between the University and the Government. Addressing himself to the medical part of the constituency, he observed that Dr. Lyon Playfair had passed through a complete medical education; had long been associated with medical men in the discharge of public duty; and that for the last ten years he had been a member of the Medical Faculty of the University. He had been diverted into chemical pursuits by the eminent ability he had shown in this department of medical study. He had received a large share of the confidence of successive Governments, who had repeatedly appointed him on sanitary and scientific commissions.—Professor Tulloch seconded the nomination.—Sir John M'Neill proposed Mr. Campbell Swinton. Of the men who had not had it in their power, by official position, to promote the success of the movement to obtain for them the franchise, he knew no man who had laboured so hard or so successfully.—Professor Shairp, of St. Andrew's, seconded the nomination of Mr. Swinton. He said: "To my medical friends, I would say that it was at Mr. Swinton's suggestion that the present Government accorded to all M.D.s not only the franchise, but all the privileges of members of the University Council. [*Cheers, and cries of "No, no.*] I know it was. [*Laughter, and a voice "No".*] It was. [*Renewed laughter and cheers.*]"—The Vice-Chancellor then said that, by Act of Parliament, he was not required to ask a show of hands on this question; and a poll having been demanded, he appointed it to take place—for the electors of Edinburgh University, in the Upper Hall of the University; and for the electors of St. Andrew's University, in the United College Hall, on Monday, November 30th, between eight in the morning and four in the afternoon, and on the four following days between the same hours. He also intimated that voting could be made either by the voter appearing at the polling place in person, or by voting-papers issued or to be issued by the agents appointed to act for the candidates. On the motion of Sir John M'Neill, a vote of thanks was given to the Vice-Chancellor for his conduct in the chair; and the proceedings terminated.

IRELAND.

MEDICAL POLITICIANS.

IN a recent number of this JOURNAL, we noted the change of the past reticence of our profession as regarded public affairs, and especially as regarded politics. At a public meeting of the liberal party, held in Dublin a few days ago, Dr. Lyons and Dr. Robert McDonnell were among the prominent speakers; while, at a public meeting of the conservative party on the 12th instant, Dr. Duncan and Dr. Beatty were not only prominent and able speakers, but were two out of the four honorary secretaries who convened the assembly.

ELECTORS OF TRINITY COLLEGE, DUBLIN.

UNDER the new Reform Act, as we before stated, every Doctor, Master, Fellow, ex-Fellow, Scholar, and ex-Scholar, is entitled to vote without any registration fee as heretofore. Considerable disappointment has, however, been experienced by numbers of gentlemen thus qualified not being able to vote, notwithstanding the repeal of this registration-fee clause. They were not aware that, although they might register at any time, yet they could not vote unless registered two months beforehand. The existence of the clause to this effect in the new Act was not generally known until now, and the consequence is that the voters have remained pretty much as under the old law. Each elector can vote by a paper, as at Oxford and Cambridge.

DUBLIN UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.

THE inaugural meeting of this Society for the present session, which was to have taken place in Trinity College on the 13th instant, was peremptorily and suddenly postponed *sine die* by the Board, who, at the same time, dealt like measures to the College Historical and to the College Theological Societies. These prohibitions were believed to be necessary in order to avoid political demonstrations at this crisis. Prohibitions of this kind have not occurred in Trinity College for many years.

SIR PATRICK DUN'S HOSPITAL.

AT a recent meeting of the Board of Governors a resolution was passed expressing deep regret at the death of Henry Courtenay, Esq., who had long been a most efficient and munificent member of the governing body of this institution. At the same meeting it was determined to test the practical interest in medical matters professed by the various candidates for the representation of the University of Dublin, with which this hospital is connected, by requesting them to contribute to its funds. The performance of Mrs. Joseph Robinson's new cantata for the benefit of this hospital, to which we recently adverted, will take place in the Exhibition Building on the 22nd of December, under the direction of Mr. Joseph Robinson.

ABSTRACTS OF INTRODUCTORY ADDRESSES DELIVERED AT THE DUBLIN MEDICAL SCHOOLS.

SESSION 1868-69.

SIR PATRICK DUN'S HOSPITAL.

DR. MOORE, King's Professor of the Practice of Physic, on the Foundation of Sir Patrick Dun, delivered the Opening Clinical Lecture at the Hospital, on November 2nd.

After some preliminary observations, Dr. Moore alluded to the study of medicine at the bed-side, where the student was called upon to observe accurately and patiently. He must simultaneously reason and collect facts; and if he was to advance, the habit of diligence and system, acquired when a student, coupled with a reverence for truth, must be the means of his promotion. It was in the wards of the hospital that theory was applied to disease, with the praiseworthy view of giving its greatest amount of relief to the patient. Practical knowledge implied close observation of the workings of nature, and, hence, time was required for its attainment. Judgment and patience were especially requisite for the knowledge and treatment of chronic diseases, hence the study of acute diseases was more fascinating to students.

Seeing a great number of cases daily was a mistake; a few should be studied carefully and accurately. The want of *accurate* observation originally, from ill-directed clinical teaching, increased with years; time rendering a loose and careless mode of observing only more inveterate. The student who slurs over what he may deem "trifling points" in a case, cannot arrive at truth. It is the man who weighs these "little things" who eventually reflects credit on himself and on the profession he has adopted. These apparently "trifling things" passed over by the careless, when carefully weighed and cultivated by the more thoughtful and observant, may prove of inestimable diagnostic value. For example, any, however "trifling," alteration in the muscles of expression; any slight difference in the size of the pupils; any, however faint, increase of temperature of half the head, might escape the notice of the inaccurate, whilst it is needless to add, such apparently "trifling symptoms" detected by the accurate and close observer, might be the means of establishing the chain of diagnosis of one of the most latent and insidious maladies in the whole range of medicine.

Clinical instruction was most valuable, as well to the beginner as to the more advanced student; it taught him to interrogate for himself, to learn from direct observation, in short, to "swim without corks". Direct and accurate observation led to independent and sound judgment. The wiser the student, the less he trusted to collateral aids; the stethoscope, laryngoscope, endoscope, sphygmograph, etc., were valuable as adjuncts, but beginners should be taught to take the widest range of observation, thus anticipating, as far as possible, the use of these appliances. Again, the more knowledge the student becomes possessed of, the more cautious and guarded he became, and more tolerant of others; "ignorance," "absolutism," and the "superlative degree," went hand in hand. Dr. Moore then detailed the duties which devolved upon clinical Professors, in directing the student how he should best set about his work; he dwelt upon the important position of clinical clerk; he advised the students not to absent themselves, even for a day, from the wards, as the thread of observation was thus necessarily snapped: he told them how to watch and report cases, and implored them to learn for learning sake, not for the mere passing an examination. Dr. Moore next referred to the place in which they were assembled; it was the "Hospital" of the "School of Physic" in Ireland, visited daily, at 9 A.M., by the physicians and surgeons, for clinical instruction; in addition, the Dispensary presented the widest range for observing accidents and emergencies, situated, as the hospital was, in the vicinity of the docks and large manufactories. The Governors give annually a silver medal to the student who shall pass the best examinations on the medical cases treated in the hospital during the year; and a silver medal to the student who shall pass the best examination on the surgical cases treated in the hospital during the year. Sir P. Dun's maternity, under the mastership of the King's Professor of Midwifery, afforded students every facility for the study of practical midwifery; thus an opportunity of obtaining a sound "practical knowledge" of his profession was placed before the student in a ring fence. The wards and corridors of such an Institution should inspire reverence. The respectful demeanour of the student in the dwelling of the sick reflected his better nature; the quiet though manly bearing, the kind word, the uncovered head, were not unobserved or unappreciated by the suffering, who would submit to any reasonable amount of personal examination when quietly conducted. In conclusion, Dr. Moore warned them that frequently their best directed efforts would prove ineffectual, and that the last enemy would be unsuccessfully encountered; but, even under such circumstances, they could assist in smoothing "the path through the dark valley", till that goal was reached "where the wicked cease from troubling and the weary are at rest."

MATER MISERICORDIÆ HOSPITAL.

DR. HUGHES commenced a course of Clinical Lectures on the 10th instant, and in the Address to the students he said—With enlightened benevolence and large-hearted charity, a young gentleman, lately deceased, bequeathed the munificent sum of £3,000 for the use of this hospital without any conditions whatever. But not content with this large endowment, he sought the means of enlarging the sphere of its utility beyond its immediate locality; and, after due inquiry and thoughtful consideration, he selected you, gentlemen, as the agents to assist in giving effect to his philanthropic views. He realised the fact that this great national institution has a double mission to accomplish. In the first place to minister to the sick poor within its walls; in the next to send forth a class of well educated practitioners who should, by the successful practice of that healing art which it taught them, reflect credit upon the hospital, and thus extend its benefits through the country at large. To aid the former he left the larger sum I have already mentioned; to promote the latter be bequeathed the lesser but still very considerable sum of £1,000, the interest of which is to be annually applied to stimulate you in the acquirement of practical knowledge in your profession. Our benefactor seemed to look upon you as the depositories of the character of this great hospital, as the missionaries who were to diffuse the blessings of an enlightened science and educated skill amongst our afflicted brethren at home and abroad; and he wished you to go forth in your calling armed with that which (humanly speaking) can alone ensure success—a sound practical knowledge of the profession you have chosen. For this purpose he established "a prize fund" to be annually competed for by all who are desirous to achieve credit in their studentship, and thus win success in after life; as it has been proved over and over again that those amongst you who make the best use of their time here—who employ themselves not in looking on or walking through our wards, but in observing and recording what is taking place, uniformly attain that success which you all desire. And now, gentlemen, you will naturally ask who is he who so nobly felt and thought for his fellows? Is he of our profession, whose pride is to have done so much for the medical charities of Dublin, or of the public who might have done so much more. Mark Leonard belonged to the public and to a family well-known and respected in this country, and more especially in this district. He was a member of the eminent commercial firm of Leonard and Co., of Liverpool and Dublin, brother of our most respected fellow citizens, Mr. Leonard, of Rutland Square, and Mr. Thomas Leonard, of Blessington Street. He died at the comparatively early age of 35 years, deeply regretted by all who knew him, and having left abundant proofs of his attachment to religion, of his benevolence, and of his kind-heartedness. Of these, however, it is not my province to speak here. I can only refer to what he has done for this hospital, and in doing so it but just to state that to him and to his name will ever attach the credit of having been the first (so far as I know) outside our profession who founded a permanent endowment for the promotion of medical education in the hospitals of this city, and thus practically recognised its importance and its influence on the well being of the public. Through life Mr. Leonard jealously maintained the highest character for unblemished honour and spotless integrity (an inheritance of his family), and possessed in a remarkable degree those social qualities which endeared him to a wide circle of relatives and friends; while to his dependents and the poor he was ever a considerate and generous benefactor. I can speak of him with some knowledge of his character, for it was my sad duty to attend him during a long and painful illness—to witness his sufferings, and to be the instrument in alleviating them not unfrequently, and I now feel a melancholy pleasure in paying a tribute to his memory, and bearing witness that those characteristics which marked him through life—namely, an enlarged and generous mind, a brave yet tender heart, and a considerate feeling for others, did not change to the end. Mr. Leonard always felt the warmest interest in this hospital, and frequently made inquiries as to its progress and efficiency. He has given substantial proof of the estimation in which he held it as a curative institution. But looking at it from an educational point of view it seems to me he served it beyond present calculation by establishing "the Leonard Prize Fund," an act than which none could be better devised for the encouragement of clinical medicine and the extension of the usefulness of the institution.

REPORT

ON THE

MINERAL WATERS OF COMMERCE:

WITH ANALYSES AND COMMENTS.

III.—SELTZER- AND POTASS-WATERS.

ARTIFICIAL Seltzer-water has become an article of considerable importance as a beverage, and also, to some extent, as a medicine. It is intended to be an imitation of certain natural mineral waters, and is made according to the data furnished by the chemical analysis of natural mineral waters. A distinguished pharmaceutist, to whom we applied for information on this subject, tells us that he makes his Seltzer-water by dissolving certain quantities of sulphate of soda, chloride of sodium, phosphate of soda, carbonate of soda, and sulphate of magnesia, in good London water, as supplied by one of the Thames Companies, and saturating the solution with carbonic acid under pressure. No doubt, the relative proportions of those various salts will have much to do with the palatableness of the Seltzer-water; but, considered medicinally, we think, the chief points of interest are: the degree of alkalinity, the total amount of neutral salts, and the organic character of the water, and to these we shall confine ourselves in this report.

	Grains per gallon.		Parts per million. Index to org. nitrogenous matter.	
	Neutral salts.	Alkalinity: neutral carbonate of soda.	Free, NH_3.	Albuminoid, NH_3.
Struve's Brighton seltzer-water; from Bell's, 338, Oxford Street	209	95.5	0.03	0.10
Seltzer-water; from Messrs. Blake, Sandford, and Blake	158	117.	0.005	0.15
Seltzer-water; from Messrs. Hooper, 7, Pall Mall	153	80	0.02	0.16
To which we append—				
London water-supply, New River Co., Nov. 10, 1868	—	—	0.02	0.08

For greater convenience, we give the results of the analysis also in another form; viz., as contents of a bottle of Seltzer-water. About as much Seltzer-water is put by the maker into a bottle as in the instance of soda-water; viz., about half a pint.

A bottle of Seltzer-water contains:

	Neutral salts.	Carbonate of soda.		Bicarbonate of soda.
Struve's Brighton Seltzer	13 grains	6 grains	or	9 grains.
Blake's supercarbonated Seltzer	$9\frac{7}{8}$,,	$7\frac{3}{8}$,,		11 ,,
Hooper's Seltzer	$9\frac{1}{2}$,,	5 ,,		$7\frac{1}{2}$,,

Commercial Seltzer-water, as exemplified by these different specimens from the best makers, is, therefore, a mild saline drink, not so alkaline as the soda-water prescribed by the *Pharmacopœia* (viz., 15 grains of bicarbonate per bottle), but rather more so than the ordinary soda-water of commerce.

	Grains per gallon.		Parts per million.	
	Neutral salts.	Alkalinity; neutral carb. of potash.	Free NH_3.	Albuminoid, NH_3.
Potass-water, from Messrs. Corry and Co.	41.6	193.2	0.025	0.10
Potass-water, from Messrs. Blake, Sandford, and Blake	43.6	179.4	0.00	0.08
Lithia-water, from Messrs. Blake, Sandford, and Blake (5 grains per bottle)	16.4	(carbonate of lithia) 66.6	—	0.16

In the case of the lithia-water, the neutral salts are simply the ordinary contents of London water; the potash-water, however, seems to have received some slight addition of neutral salts. Expressed in contents of the bottle:

	Bicarbonate of potash.	Bicarbonate of soda.
Potass-water; Corry and Co.	$17\frac{1}{2}$ grains, equivalent to	$14\frac{3}{4}$ grains.
Potass-water; Blake, Sandford, and Blake	$16\frac{1}{4}$ grains, equivalent to	$13\frac{5}{8}$ grains.
	Carbonate of lithia.	
Lithia-water; Blake, Sandford, and Blake	$4\frac{1}{4}$ grains, equivalent to	$9\frac{1}{2}$ grains.

It will be observed that we have given the quantity of bicarbonate of soda equivalent to the carbonates of potash or of lithia actually present in the water. This has been done in order to facilitate comparison. From the numbers, it will be seen that, in real alkalinity, the strongest potass-water does not exceed the soda-water of the *Pharmacopœia.*

The data respecting the organic condition of these waters require a few words of explanation. They were obtained by the ammonia-process of Messrs. Wanklyn, Chapman, and Smith, which has been often referred to in this JOURNAL. It will be seen, on examining the tabular statements, that those values are referred to the million parts of water. They are parts per million, not grains per gallon. Every one part of "albuminoid ammonia", means ten parts of organic nitrogenous matter. Therefore—to take the first analysis in this report—1,000,000 parts of Struve's Seltzer contains one part of organic nitrogenous matter.

It has been shown that average London water, such as is supplied by the Thames and New River Companies, yields from 0.05 to 0.08 parts of albuminoid ammonia per million, and contains, therefore, 0.5 to 0.8 parts of organic nitrogenous matter per million.

The organic state of none of the samples of artificial mineral water described in this report can be said to be very satisfactory. The best that can be said of any of these waters is, that it is no worse than New River water at its worst. On making inquiry, we have learnt that some of the Seltzer water, which gives high numbers, was made with ordinary London water. It would seem, therefore, that either the saline constituents of Seltzer water are favourable to the growth of organic matter, or that some of the salts employed are not very pure. A manufacturer has suggested to us that perhaps the bay salt which is used is the source of the extra organic matter. All this, however, points to the urgent necessity of paying increased attention to have extremely pure water—*i. e.*, water extremely free from organic matter. The preliminary application of the Clark softening process to water designed for use in making artificial mineral waters could hardly fail to be a great improvement, inasmuch as it has been shown to be a most efficient means of depriving water of organic impurity. That the Clark process is practicable, has been abundantly proved. It is in work at Caterham, in Kent, for the softening of the water supplied for general consumption. *A fortiori*, therefore, it would be practicable to apply it for a limited use, as for the preparation of the comparatively small quantity of water used in such a manufacture as that of Seltzer water

MESSRS. ROUGHSEDGE and SUMMERS, the well-known soda-water-makers of Bristol, have sent us some of their soda-water for examination. It contains 172.3 grains of salts per gallon. Of this, 87.5 grains are neutral carbonate of soda. In the water, of course, the alkali (which appears in the dried residue got on evaporating a measured quantity of the water to dryness in the state of neutral carbonate) exists as bicarbonate. The quantity of bicarbonate of soda in a bottle is $8\frac{1}{4}$ grains. Like the water of Messrs. Webb, which is just now very popular at the West End, it contains a good deal of common salt. Its organic character is better than that of most artificial mineral water we have examined, but still is not perfect. It is very highly charged with carbonic acid gas. We have not met with any soda-water which is more highly charged with this gas. It is very good soda-water, fully as alkaline as is suitable for use as a beverage.

[In the paragraph (Nov. 7th) entitled "Soda-water at the Clubs", there is a clerical error: "4 per cent." was written by mistake for "four grains per bottle".]

UNIVERSITY OF LONDON.

AT an Examination like that for the M.B. degree at the University of London, a candidate for honours in medicine should be expected to meet any test which can fairly be applied, but it should be given with special reference to his practical knowledge. It has often been remarked that those who are distinguished in their University career have failed to make a name in after life; one reason is that men are apt to relax in their energies when they have taken their degree, and look upon it as a goal, instead of making it a stimulus for a greater exertion. Another reason is that the highest reward is often given to those who acquire their knowledge merely from books, and not from their practical acquaintance with disease. For the last few years, the questions set at the M.B. examination have been singularly well chosen, and those given for the Honours Examination have been of such a nature as to require from the candidate a thorough knowledge of clinical and *post mortem* work. This year, however, two questions in the Afternoon Paper for Honours in Medicine were ill-adapted for the purpose; one was on the subject of Cerebro-Spinal Meningitis, a disease which most probably not a single candidate has seen, and about which his information must be from books only; the other question was with regard to the ascertained facts concerning the Hereditary Transmission of disease; now, here, practical knowledge was of little or no service, as the answer must be sought for chiefly in the blue books and statistics, and not at the bedside of the patient. The Scholarship in Medicine should be the reward for earnest and hard work in the wards, as well as book work, and it will fail in its purpose, if it make men spend their time in preparing for it in the studio or library.

THE GENERAL ELECTION: MEDICAL MEMBERS.

So far, the election returns show a slight increase to the very small number of members of the medical profession who have found seats in a Parliament likely to be largely occupied with sanitary and social legislation. Mr. Clement is returned for Shrewsbury; and Dr. Brewer, the Chairman of the Metropolitan Asylums' Board, has found a seat for Colchester. He has a long and practical acquaintance with the question of Poor-law relief; but has hitherto been disposed to play the part which Colonel Hogg filled in the last Parliament. Mr. Vanderbyl is again returned for Bridgwater. Mr. Lowe is likely to show an active interest in many subjects of medical and educational legislation, in which he has always taken an enlightened interest. Mr. Watkin Williams, who passed through a medical training in early life, and who is for the first time seated in Parliament, has always retained some valuable associations with the medical profession; and is, we think, to be counted on for a clear appreciation of the value of arguments dealing with sanitary and medico-political subjects. Sir Dominic Corrigan has not been successful at Dublin; nor has Mr. Smee at Rochester. Dr. Brady's seat is, we believe, secure.

ASSOCIATION INTELLIGENCE.

NORTHERN BRANCH.

A SPECIAL MEETING of the members of the above Branch will be held in the Library of the Newcastle Infirmary, on Wednesday, November 25th, at 2 P.M., to consider an address from the Committee of Council of the Association respecting the Direct Representation of the Profession in the General Medical Council.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, November 14th, 1868.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of the above Branch will be held at the Fountain Hotel, Canterbury, on Thursday, November 26th, at 3 P.M.—Dinner at 5 P.M.

November 1868. ROBERT L. BOWLES, *Hon. Secretary.*

METROPOLITAN COUNTIES BRANCH: SPECIAL MEETING.

A SPECIAL GENERAL MEETING of the Metropolitan Counties Branch will be held at 37, Soho Square, on Tuesday, December 8th, at 4 P.M., to take into consideration the subject of the Direct Representation of the Profession in the Medical Council. (See BRITISH MEDICAL JOURNAL, November 7, page 506.)

A. P. STEWART, M.D.
ALEXANDER HENRY, M.D. } *Honorary Secretaries.*

London, November 17th, 1868.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

THE second meeting took place on November 10th, at Maidstone; HENRY W. JOY, Esq., in the chair.

The Next Meeting was appointed for March 5th, 1869, at Gravesend, and Charles J. Pinching, Esq., was chosen chairman.

New Members.—The following were elected members of the Association, subject to the rules respecting confirmation at the annual Branch meeting. 1. Henry Cecil Smith, Esq., Maidstone; 2. Hutchins Williams, Esq., Aylesford; 3. John Sutton Sams, Esq., Eltham Road, Lee, Kent.

Medico-Ethical Committee.—Dr. GRAMSHAW brought forward a proposition, which was carried by the casting vote of the chairman, as follows. "That a Permanent Medico-Ethical Committee be appointed, constituted of four members of the district from different localities. Should the Committee deem it desirable, they shall be at liberty to refer any case to the Council of the Branch."

Communications.—The following communications were read.

1. Rupture of the Liver and Stomach by a Fall. By W. Hoar, Esq.

2. Herpes Frontalis. By M. A. Adams, Esq. Mr. Adams also exhibited to the meeting two cases of Arrested Lens.

3. Death three days after Forceps-Delivery, attributed to Embolism. By G. H. Furber, Esq.

4. Section of the Ciliary Nerve in Sympathetic Ophthalmia. By J. Z. Laurence, Esq.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE twenty-ninth meeting was held at the Ship Hotel, Farnham, on September 10th. After the ordinary business of the meeting, the following papers were read.

Mr. GARRAWAY.—A case in which Premature Labour was induced under peculiar difficulties by the Injection of Water into the Uterus.

Dr. BOWES related some cases of Sunstroke, and gave the details of a *post mortem* examination of a fatal case.

Mr. BARTON related a case of Tetanus successfully treated by Calabar Bean.

Mr. SPONG exhibited several specimens of the true Oyster-Spat, and made some remarks thereon.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE first ordinary meeting of this Branch was held at the Royal Hotel, Bristol, on October 29th; R. N. STONE, Esq., President, in the Chair. Total attendance, sixty.

New Members.—Edward Martin, Esq., of Weston-super-Mare, proposed by Mr. Prichard, and seconded by Mr. Steele; and T. O. Mayor, Esq., of Redland, proposed by Mr. Prichard, and seconded by Dr. Swayne,—were elected members of the Association and of this Branch.

Papers.—Dr. SWAYNE read the second of a series of papers on the Use of Obstetric Instruments, dwelling principally on the value of the vectis and the forceps. Considerable discussion followed, relative to the early application of the forceps in protracted labour, in which Messrs. H. Grace, F. P. Lansdown, Collins, Hinton, Prichard, Atchley, Tibbits, Mason, and D. Davies, took part.—Mr. GRACE had attended 3,500 cases of midwifery. Though in early practice greatly prejudiced against the forceps by a case in which they were used closing very badly, he had lately learned to set a very high value on their timely use.—Mr. COLLINS was favourable to their use, but felt that, when they were applied early, flooding was apt to ensue.—Mr. HINTON thought the early use of forceps very desirable, and spoke of the importunities of patients for their application when labour is tedious. Flooding might be avoided by delivering the head slowly, and allowing the uterus to contract on the body.—Dr. BRABAZON dwelt on the necessity of providing against rupture of the perinæum; there being fear of this occurring in ordinary natural labour, but much greater fear when the forceps were used.—Mr. PRICHARD mentioned two bad cases of ruptured perinæum on which he had operated, both having occurred with the use of forceps.—Mr. ATCHLEY spoke of the wisdom of combining the administration of ergot with the application of the forceps.—Mr. TIBBITS mentioned two cases of ruptured perinæum which had lately come under his notice, both occurring with the use of forceps.—Mr. MASON felt that forceps should be used when nature could not finish the case. The operator should use traction when pains occur, and wait for the head to pass the perinæum.—Dr. SWAYNE, in reply, stated that he had, during the last ten years, taken up the more frequent use of forceps. As a general rule, he waited two hours to see if the head was moveable, provided the woman was in a favourable condition. The use of the forceps was not so safe to the child as an ordinary not very tedious labour. When the cord was round the neck, the forceps were likely to squeeze it against the neck. He did not like to compress much, from fear of injuring the eyeball, disfiguring the head, or leaving marks. He felt that danger to the perinæum of the mothers ought not to exist. The accoucheur should work with pains when there were any; and when the patient was exhausted, work without pains, leaving the case to nature when the head was on the perinæum, and even removing the forceps if the part were tense. Laceration of the perineum was more frequent after the use of the forceps than in unaided labour. Dr. Swayne had never met with a bad case of ruptured peninæum, or of bad hæmorrhage after using forceps. He recommended that Ergot should never be given in first labours if possible.

Mr. STEELE exhibited two Monsters, whose births he had attended this year. The first was an instance of enormous aqueous distension of the whole areolar tissue of the body, also of the abdominal cavity and bladder. The kidneys were greatly hypertrophied, and a spot of tubercle on the peritoneum showed the strumous origin of the malady depending on hereditary transmission from the father, who had suffered from chronic phthisis for several years. The second monster was a very well marked case of sessile encephalocele of very large size which protruded through an opening of the size of half-a-crown, occupying the place of the occipital protuberance. The cavity of the skull was very small, the forehead running horizontally from the eyebrows. The encephalocele exactly similar to an enormous chignon; its anterior half was covered with hair, the posterior by their membranous tissue on the point of sloughing at its apex; and the cavity was filled with softened brain mingled with blood. The child lived twelve hours.—Dr. Swayne, Mr. Davies, Mr. Board, and others made remarks upon the specimens.

Mr. HINTON read a case of Dangerous Syncope which had occurred in his practice. Mr. Collins, Mr. Bartrum, Dr. Swayne, Mr. Atchley, Dr. Brabazon, and Dr. Davy took part in a discussion which followed.

Medical Courts of Appeal.—The Report of the Special Committee on the subject of Medical Courts of Appeal was read. Discussion commenced upon it, but as it consisted of several clauses, arrived at with much trouble on the part of the Committee, it was suggested by Dr. Falconer, and resolved, that, in order to afford a full opportunity of considering the Report of the Committee, that the Report be printed and circulated with the notices of the next ordinary meeting of the branch.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 4TH, 1868.

JOHN HALL DAVIS, M.D., President, in the Chair.

MR. HECKFORD exhibited the Generative Organs of a Child aged ten months, in which the Vagina was enormously Dilated and occupied by Villous Growths of a medullary character. The rectum, bladder, and urethra were normal. The os uteri opened into the upper wall of the vaginal sac. The disease had lasted for about four months, and the child died shortly after its admission into the East London Children's Hospital.

Dr. MEADOWS exhibited some Medicated Pessaries which he believed to be more efficacious than those made with the cocoa-butter. The uncertainty in the action of the pessaries in ordinary use he believed to depend mainly on the fact, that the vagina did not absorb fats, and that the medicinal ingredients in the pessaries being coated passed away from the vagina without being absorbed. At his suggestion, Messrs. Bell and Co. had made some pessaries in which the basis was soft soap made into a mass either with powdered althæa, or with starch, or with bees-wax. In either of these forms, the ingredients were easily absorbed by the vagina; and the strength of the pessary could be much diminished.

The PRESIDENT exhibited an Intrauterine Fibroid Tumour which he had recently removed from a maiden lady, aged fifty. Symptoms of uterine disorder had existed for upwards of seven years. The abdominal tumour reached nearly to the navel, was uniform and symmetrical. It was adherent to the uterus anteriorly and laterally, and it was strongly and widely attached to the fundus posteriorly. After due preliminary measures, the lower third of the growth was amputated by the single wire *écraseur*. The remainder was then cut into, and portions excised with curved scissors. On the fourth day the devitalised remnant was thrown off entire, leaving the uterus quite empty. The entire tumour weighed eighteen ounces. The patient had done well.

Dr. GRAILY HEWITT exhibited a series of Uterine Pessaries which he had for some time employed. First, a series of oval rings, a modification of Hodge's Pessary, of various sizes, for the treatment of retroflexion and prolapsus. Secondly, a series of pessaries of various sizes, and of novel construction, for the treatment of anteversion and flexion. These were made from a ring bent into a peculiar form, and were termed by the inventor "cradle" pessaries. For two years he had made use of these with very satisfactory results. Thirdly, a series of stem-pessaries, also of novel construction. The stem, of ebonite, an inch and a half long, was supported in its place by an oval shaped basis of gutta percha. These he had used in the more obstinate cases of anteflexion and for dysmenorrhœa, or sterility therewith associated, and also in certain cases of retroflexion. The various instruments exhibited were constructed on the principle of using the vagina as the basis of support.

The discussion on the Papers of Dr. TILT and Dr. MEADOWS, adjourned from the October meeting, was then resumed by

Dr. ROUTH, who said that, if he understood Dr. Tilt's paper accurately, it went to prove that the disease called irritable uterus by Gooch was very infrequent. Abnormal complications existed in many of these cases, but the amount of complication often bore no relation to the amount of pain endured. As to the etiology of displacement, there were three varieties:—1, produced by inflammatory or other complications of surrounding parts; 2, the congenital; 3, the acquired. Anteversion he believed to be more common than generally supposed, but fortunately often quiescent. The normal position of a child's uterus, and also in early puberty, was one of anteversion; and in later life, a fat omentum, heavy and loaded intestines, etc., might readily induce this flexion, quite apart from inflammatory disorder of the uterus itself. In a healthy pelvis and healthy ligaments retroflexion was impossible; the round ligaments, and the ligaments of Douglas were both especially relaxed; the lateral less so; so that the organ was disposed to fall. Until congestion or inflammation was subdued by treatment, no permanent good could result from the use of instruments.

Dr. SAVAGE said, that this antagonism between practitioners so eminent as Dr. Hewitt and Dr. Meadows plainly showed that opinion about uterine displacements was unsettled. He thought that a reconsideration of the normal relations of the female pelvic organs with the pelvis might do something towards a more creditable uniformity of opinion. The utero-pelvic areolar tissue, which enclosed the pelvic organs, had properties eminently fibro-elastic (muscular also in many parts of it). If, in the dead body, the cervix was drawn forward with a vulsellum, the strain began with the utero-sacral portion where it divides to give passage to the rectum; then it passed on to the broad ligaments. If these were cut through, the uterus came down about an inch; it was necessary to divide the pelvic areolar tissue before a notable displacement could be effected. If a weight was attached to the vulsellum, the body in the sitting position, the weight must be heavy and the time long before the uterus would appear at the vulva. On cutting through the broad ligaments close to the womb, the organ fell helplessly in all directions. He believed there was always some prolapsus with retroversion. Owing to the presence of the rectum and bladder the cellular attachments of the vagina were limited to its sides, and this was why the vagina contracted not as a cylinder but as a flat tube; the upper half being fixed, dilatation and contraction for the most part affected the lower half only, which must fall or rise in their to-and-fro relation with the former. No pessary, one excepted, could do much more than keep the womb out of the vagina. Pessaries eased the strain on the areolar tissue, which began forthwith to regain its healthy tone. Aggravated cases of prolapsus of long standing were again and again held up, permanently reduced after the perineal operation; but should this tissue have lost its elasticity, the best artificial perinæum would be sure to give way. Hodge's was the best pessary, because in shape it corresponded with that of the contracted vagina.

Dr. BRAXTON HICKS suggested that, between the two extreme views propounded, a large amount of intermediate truth existed. He considered that, for practical purposes, cases of retroflexion were to be devided into four classes. In the first class were cases of congenital retroflexion where no pain had existed previously; and those in which, the flexion having occurred a long time before, all pain had completely gone off. In the second class, the retroflexion was *in transitu*, the supporting tissues were not yet fully stretched, so that, when any straining or quick action of the body ensued, the parts were put on the stretch, and pain produced. In the third class were those cases where, to the retroflexion, a state of congestion, hypertrophy, and tenderness, more or less severe, were added. If these cases were handled roughly *per vaginam*, or with the sound, no doubt much mischief might ensue; but if the uterus could be replaced by the postural mode, or even by the sound gently used, then the uterus, being free from concussion against the sacrum, and the tension being taken off the ligaments, great relief would be obtained. The organ could be kept in position by Hodge's pessary. In the fourth class were all those cases where the uterus was reflected, and either tied down by adhesions, weighed or pushed down by heavy tumours, or with a very tender ovary, etc., where the use of mechanical support would generally produce distress rather than relief.

Dr. BARNES believed that simple retroflexion was a cause of real and serious distress in many cases. Congenital retroflexion was more frequent than it was supposed to be by Drs. Routh and Hicks. Cases of severe suffering in single women due to it had come under his care. It was certain that inflammation, or other disease of the uterus, was not necessary to the production of retroflexion. A most common cause was childbirth or abortion. In many cases where he had been called in to treat secondary puerperal hæmorrhage he found retroflexion, and when the retroflexion was relieved the hæmorrhage commonly stopped. After labour, if involution were retarded, and the patient got up too soon, the uterus was apt to roll backwards, and, if not rectified at the time, the retroflexion became chronic, and various disorders ensued. To restore the body of the uterus to its place Hodge's pessaries answered admirably. Hodge's pessary could often be used advantageously, whilst there was inflammatory complication. By supporting the uterus in its due relations, the hyperæmic condition of the body was relieved by the freedom afforded for the return of the blood from the engorged vessels. It was by no means illogical to treat the epiphenomena, the consequences of the disease, first. In most combinations in medicine we were compelled to treat the secondary complications. Indeed, it was only by observing and removing them, that, in many cases, we were enabled to trace back and to discover the primary disorder.

Dr. **Squire** protested against the use of the hysterotome as a means of depletion in these cases; ovarian irritation, also, would subside under other remedies than bleeding and blistering, if the use of alcohol were prohibited. Involution of the uterus was greatly aided by lactation, and retarded by alcohol, the use of which ought to be limited where lactation is not carried on.

Dr. **Priestley** said that he recollected the time when uterine flexions were denied a place in uterine pathology by some authorities, and even now eminent practitioners were not in accord as to their frequency and importance; indeed, he was informed by Dr. Greenhalgh that so eminent a teacher as Dr. Churchill of Dublin had never as yet met with anteflexion in the unimpregnated uterus. He concurred with Dr. Barnes, in reference to the frequency and severity of the local symptoms sometimes associated with retroflexion as their direct cause. He would, indeed testify that within his experience retroflexion of the unimpregnated uterus had been productive of very grave symptoms. Uncontrollable chronic vomiting had, in some cases, been a prominent feature. In another case of acute retroflexion of the uterus, the patient had for years been suffering from what appeared to be progressive paraplegia, until she lost almost entirely the power of walking. The use of a Hodges' pessary gave great relief; the patient began soon to walk little by little, and was now gradually regaining the use of her limbs. In a lecture published some years ago, he had pointed out that the cause of the attendant suffering was often to be found in the condition of the ovaries. In the cases where the results were felt in distant organs, pressure caused by the displacement could not account for the symptoms, but they were probably due to reflex effects upon the nervous system. He had no hesitation in recognising the classification suggested by Dr. Hicks. In treatment he pursued an eclectic course, dealing with each case in accordance with its own peculiar features. With respect to depletion, as an occasional treatment, he preferred that moderate amount which would be just sufficient to relieve the congestion present rather than the frequently repeated and larger bleedings alluded to in the discussion; and he could not regard depletion alone as a remedy for the displacement. In conclusion, he could bear willing testimony to the value of Hodges' pessary in suitable cases.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, Nov. 3rd, 1868.

Sir Henry Thompson in the Chair.

A report was read from the Committee on Morbid Growths, on Mr. **Birkett's** case of Fibroplastic Tumour.

Mr. **Heath** showed a case of Medullary Cancer of the anterior part of the Tongue which he had removed by means of the *écraseur*. It was referred to the Morbid Growth Committee.

Mr. **Heath** also exhibited a very extensive Tumour involving the Cranium and upper part of the Face and its cavities, taken from a female, aged 24, who had died in University College Hospital. The tumour had commenced originally in the right orbit, when it and the eyeball on that side were removed by Sir W. Fergusson. The patient made a good recovery, and remained well seven years. It returned in the same position, and was again removed by Sir William Fergusson. It, however, appeared a third time, and in eighteen months reached an enormous size; the left eye protruded greatly, and was turned outwards; the sight, however, was good. There were no cerebral symptoms until a month before her death, when she was seized with an epileptic fit. She died rather suddenly, but quietly. The tumour was found to involve the cavity of the cranium and the upper part of the face intimately. No medullary disease was found, the tumour being apparently of a semi-fibroid semi-lipomatous character.—The case was referred to the Committee on Morbid Growths.—Mr. **Holmes** referred to a similar case which had been in St. George's Hospital, and in which the growth was greater; the whole cranial cavity, with the exception of the part for the anterior convolutions, being filled up.—Mr. **Hulke** spoke of the inutility of merely excising, as was done twice in the first case, tumours such as these. Greater success resulted when the part was also treated with caustic or the hot iron.

Dr. **Church** showed a Stomach and Duodenum in a Mammillated State from a patient who suffered and died with general anæmia, dyspepsia, vomiting, and slight purpura. The stomach and upper part of the duodenum presented the appearance similar to small-pox pustules, and were lobulated. The glands of the cæcum and its valve were somewhat prominent.

Dr. **Church** also brought forward a case of Aneurism of a branch of the Pulmonary Artery, which suddenly caused death.

Mr. **Holmes** showed a fine specimen of Fibrous Tumour of the Testicle from a man aged 51, who had suffered thirty years from its presence and gradual growth. When removed, it was found unattached to the testicle, and the cord passed up behind it; it appeared to be invested with tunica vaginalis. It presented microscopically a fibrous structure, except in one spot where the tumour had softened.—Mr. **Heath** had exhibited a large tumour of this kind in which the tunica vaginalis was involved.

Dr. **Bastian** showed a double Aneurism in the Middle Cerebral Artery; the right one, of the size of a small pea, pervious; the other filled with thrombus, and of the same size. There was softening around both. The patient suffered from hemiplegia and mental paralysis. At the autopsy, the liver was found hard and granular, and old and recent embolic deposits were found in the spleen and kidneys.

Dr. **Bastian** showed the Cerebral Hemispheres from a case where there was a notch-like depression in the right posterior lobe.

Dr. **Murchison** showed an obscure Abdominal Tumour taken from a scrofulous patient who had died in the Middlesex Hospital. He had been seized about two months before with pain in the abdomen and vomiting, followed in a month by swelling. Seven days later, œdema of the legs supervened. He rapidly emaciated, and suffered from profuse night-sweats. There was no diarrhœa or hæmoptysis. When admitted, there were signs of fluid in the abdomen apparently shut off to the left side; there was also tenderness, but no fever, the temperature being 98; urine normal. There was dulness over the base of both lungs. He died in convulsions. After death, a small quantity of turbid fluid was found in the abdomen and in both pleuræ. The walls of the intestine, commencing beyond the pylorus and extending along the duodenum to part of the jejunum, were enormously thickened, some parts being as much as two inches; there were also isolated patches in the other parts of the intestine, and almost all the abdominal glands were similarly affected. The juice of all was like cancer. There were similar deposits in the kidney, liver, portal canal, heart, in the parietes of the abdomen, and in the diaphragm. Microscopically, the fluid in the pleuræ and abdomen was found full of oil, but no cancer-cells were found either in the fluid or in the new deposit, which consisted of a nuclear mass like the early stage of tubercle or fibroid degeneration. There was no obstruction to the thoracic duct. There was an old cicatrix in the groin, which might possibly favour the idea that the growth was syphilitic.—Dr. **Bastian** remarked on the great interest of the case, and the importance of diagnosing internal syphilitic growths.—Dr. **Moxon** said there were only two cases of syphiloma of the kidney on record; these growths were not vascular, as in Dr. Murchison's. He thought the distribution of the growths more like peritoneal cancer.—Mr. **Hulke** said vascularity went for nothing; he had seen syphiloma very vascular.—Dr. **Murchison** disagreed with Dr. Moxon that the growths were vascular, and he did not say they were syphilitic.—The **President** said that the presence of the cicatrix in the groin was in favour of his not having suffered from syphilis.—Referred to Committee on Morbid Growths.

Mr. W. F. **Clarke** showed a Sebaceous Cyst of the Prepuce.

Mr. **Spencer Watson** brought forward a patient with Blood-Cyst of the Thyroid. The original cyst, of large size, had been succeeded by several smaller ones, occupying nearly the same position in the left anterior triangle of the neck. The treatment had consisted in passing setons through the cysts and leaving them in for several weeks, at the same time injecting the cavity with a solution of perchloride of iron. The physical characters and microscopical appearances of the fluid from the cysts showed that they consisted essentially of the altered and hypertrophied vesicles of the gland itself.

Mr. **Watson** also showed a case of Disease of the Testicle, which came on with swelling eighteen months after an injury to the right testicle. It was removed by Sir William Fergusson, but recurred two years afterwards, when a solid sarcomatous growth was found in the substance of the gland, and two cysts in the epididymis. In the centre of the sarcomatous mass, a yellow cheesy deposit resembling tubercle or dried pus was found. The question requiring solution was whether this new growth had resulted from the organisation of a blood-clot, or from inflammatory exudation.

Dr. **Squarey** exhibited for Dr. **Green** a specimen showing a Varicose state of the Veins of the Ileum.

Dr. **Thomas Ballard** showed a small Exostosis which had been removed from the head of the Tibia.

HARVEIAN SOCIETY OF LONDON.

October 15th, 1868.

W. F. Cleveland, M.D., Vice-President, in the Chair.

Five new members were proposed for election.

Mr. **J. Z. Laurence** brought under the notice of the Society a case of Sympathetic Ophthalmia, in which he had substituted Section of the Ciliary Nerves of the primarily affected eye for its removal.

Heat-stroke.—Dr. **Handfield Jones** read a paper on Heat-stroke (Insolation), giving a sketch of the symptoms, morbid anatomy, sequelæ, etiology, pathology, pathological affinities, and treatment of the disease. Several cases were related in illustration of the less severe forms of the malady occurring in England. The view taken with respect to the pathology was, that the phenomena were simply extreme results of the ordinary enfeebling and relaxing influence of heat acting upon different nervous centres; the intellectual, the cardiac, the sensory, the motor, and the vaso-motor being affected in different degrees in different instances. It was pointed out at the same time that, even on the same nervous centre, the influence of heat did not always act exactly in the same way, so as to give rise to the same phenomena. Although it was no doubt true that the symptoms were all indicative of depression and weakening of nerve-force, and belonged to the same pathological order, yet there were considerable differences among them. Thus, in some individuals, we have stupor, languor, apathy, drowsiness, numbness, and partial paralysis; in others, insomnia, hyperexcitability, anxiety, delirium, convulsions, tremors, pain. The great elevation of temperature approximates the malady closely to fever, and differentiates it from carbonic acid poisoning. Some remarkable observations of Dr. H. Weber were cited, showing that mechanical injury to certain nerve-centres is capable of inducing excessive blood-heat and pulmonary engorgement—in fact, a condition analogous in the symptoms during life, and in the *post mortem* appearances, to what is observed in cases of heat-stroke. Under the head of associated pathology, a notable affinity is traced between heat-stroke on the one hand, and summer fever, roseola æstiva, ordinary summer diarrhœa, English cholera, and certain cases of bronchitis, on the other. The strange multiformity of the sequelæ was pointed out, as well as their remarkable persistency. The indications of treatment were stated to be the restoration of nerve-power, the maintenance of the action of the heart, and the removal of congestion.—Dr. E. Symes Thompson, Mr. Curgenven, Dr. Broadbent, Mr. Owen, Dr. Cleveland, and Mr. J. Z. Laurence, afterwards took part in the discussion; and Dr. Handfield Jones briefly replied.

CORRESPONDENCE.

EXTIRPATION OF THE LACRYMAL GLAND FOR THE CURE OF EPIPHORA.

Sir,—I thought that I was justified in stating, that the extirpation of the lacrymal gland for the cure of epiphora required further investigation. The circumstance of the suggestion having been revived by such an eminent ophthalmologist as Mr. J. Z. Laurence entitled it to consideration. But, from the letter of Mr. Laurence, in the Journal of October 10th, it would appear that I am mistaken. The positive manner in which he discusses the subject, and the authorities whom he cites as his followers, seem to indicate that the operation has already passed its period of trial into the category of well received classic facts, and does scarcely admit of "re-discussion". So be it. I shall, therefore, waive the question as to the formidable character of the operation, being assured by Mr. Laurence that "the operation is not a formidable one, as I imagined; for it only demands that due knowledge of the anatomy of the parts, and that care in its performance, which most surgical operations do." And in this Mr. Laurence can certainly speak from experience, as he extirpated more glands since 1866 than all the living surgeons together. I may, however, be permitted to state some of the facts which seem to militate against the admissibility of such an operation "systematically."

1. In experimenting upon animals, we find that the removal of the lacrymal gland does not sensibly diminish the secretion of tears. In my experiments upon rabbits, I found that the conjunctiva and cornea were not only moist, but, on irritating it with a probe, the conjunctival *cul-de-sac* became full of tears. To this, Mr. Laurence objects that the "moisture is not from tears". What name does he give to that moisture, then? If fluid, no matter what its name be, is secreted after the removal of the gland, then it follows that the operation will not cure epiphora. Speaking of these experiments, I may say that I have performed courses of vivisections under the great master, Claude Bernard, and I am in the habit of resorting to them as often as I want to establish or test a physiological fact. I am fully sensible of the fallacies which surround all physiological experiments, and it is my study to avoid such. I would, therefore, have thanked Mr. Laurence if he had pointed out where I left an open door for fallacies, instead of confining himself to the bare assertion that my experiments are fallacious without producing any proof; for, in all the strong statements which, I presume, have been intended as proof, I can discover only the *ipse dixit*, which is very unsatisfactory in such discussions. There is one suggestion, however, which Mr. Laurence does make; viz., "To verify the continuity or not of the lacrymal secretion, we should establish a permanent fistula of the lacrymal gland in animals, and note the result." But would not such an experiment be the essence of fallacy? Could we reason from the secretion of a gland in a morbid condition—in a state of constant irritation—to its normal action?

The fact that, after the removal of the gland in the human subject, "tears were secreted in such quantities as to flow down the cheek", is no "loose statement" of mine, but is recorded by Harpin in the *Annales d'Oculistique*, tom. ix, p. 159. David's three cases, where, after the extirpation of the gland, "the eyes were as moist as the other, and capable of weeping as if the lacrymal gland had been present", is no loose statement either; but are recorded in the *Medical Gazette*, 1829, p. 528, from *Journal de Médecine Pratique*, Bordeaux. A case by O'Beirne* points in the same direction.

Indeed, the influence of the lacrymal gland upon the secretion of tears is so uncertain, that Martini went even so far as to deny that the gland had any share in the secretion of that fluid. What seems to countenance that view is that, whilst the removal of the gland does not diminish the tears, the disease of the conjunctiva, which has worn off its epithelial cells and papillæ, gives rise to dryness of the eyeball, and to the formation of a panniform membrane over the cornea. This is particularly the case with patients coming from Egypt, of whom I had seen a good number; also some from the West Indies.

Mr. Laurence confuses the discussion by employing the term "tears" in a double sense; first, as meaning the secretion of the lacrymal gland only; and secondly, as implying the whole secretion found on the face of the conjunctiva. This latter is the ordinary meaning of the word; it is in this sense that I have used it; and, in this sense, the tears (that is, the whole secretion) are, as Mr. Laurence admits, furnished partly by the gland and partly by the conjunctiva. The value of the operation as a remedial measure will, therefore, depend mainly on whether it is the gland or the conjunctiva that is most usually at fault in the hypersecretion producing epiphora. This will be best determined by clinical observation; and I, therefore, proceed to remark

2. As far as my clinical observations go, it appears to me that the gland but very rarely determines the hypersecretion of tears. When this hypersecretion is really present, it seems to me to be chiefly caused by hyperæsthesia of the conjunctiva, occurring either alone or with ozæna,† constituting a very troublesome class of cases, which frequently resist all treatment. Will extirpation of the gland do in such cases? I should be inclined to try it as soon as I can understand upon what principle it is practised. But, in the great majority of cases, the epiphora is caused, not by hypersecretion, but simply by mechanical obstruction, as stricture of the canal, disease of the sac and nasal duct. Those do well without the removal of the gland. I have just lately succeeded in two such desperate cases, by patient use of the bougie and syringe. One was a boy sent by Dr. Steel from Montrose, in whose case the epiphora was of some years' standing, complicated with purulent secretion of the sac, who was completely cured after a month's treatment; and the other case was that of a child, sent by my friend Dr. Greig of Fyvie, in whom it was complicated with congenital fistula lacrymalis, purulent sac, and closure of the lower canaliculus. The fistula closed, and the cure was complete in three weeks.

I am, etc., J. R. Wolfe, M.D., F.R.C.S.E.

Glasgow, October 1868.

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* In my former paper, instead of Daniel O'Brian, read Daniel O'Beirne.

† My friend Dr. A. D. Davidson succeeded in the case of one patient of the Aberdeen Ophthalmic Institution, to rid her both of the ozæna and epiphora by syringing the nostrils with a solution of carbolic acid.

TEALE'S MODE OF AMPUTATION: MR. WHARTON'S MODIFICATION.

Sir,—I have read with much interest Mr. Teale's letter, as published in the last number of the Journal. His main objection to the modification of "Teale's Amputation", as proposed in the previous number of the Journal, consists in the following: that, "if the posterior tissues be divided opposite the point selected for sawing through the bone, they immediately retract to a point higher up, and thus leave the posterior surface of the bone projecting and denuded of soft tissues." I am far from denying the force of this quotation; but, at the same time, am of opinion that this result can be guarded against, at least to a considerable extent, if not entirely, by having the posterior tissues forcibly retracted before their division, so that, when the bone shall have been divided, their cut surface shall, at all events, be on a plane corresponding to it. But, should my opinion in this respect be erroneous, and that retraction should occur notwithstanding, it must be remembered that there is apparently an abundant supply of soft tissue in the anterior flap to compensate for this drawback. I wish, however, to be understood as alluding only to experiment on the dead body.

In connexion with this subject, it would be well to take into account the consideration how far the retraction may be impeded by the non-separation of the soft tissues posteriorly from the bone. Should Mr. Teale consider these views unimportant, there still remains the alternative of dividing the tissues on a lower plane, so as to meet Mr. Teale's objection; my object being not so much to save the necessity of a posterior flap, as to prevent any unnecessary sacrifice of bone, which, in the thigh, is of vital importance. True, an objection may here be raised, that tendinous structures will in this case form a portion of the stump. I do not, however, think there is much force in this difficulty, because their removal is very easily effected. Mr. Jessop, in his communication, which follows upon Mr. Teale's, has rightly described the length and breadth of the anterior flap; but I do not think he has, in other respects, rightly read the paragraph to which he alludes. No doubt, it is headed "Improved Mode of Amputation", for which I believe I am not answerable; but this is immaterial, as the following words, "But an improvement has been suggested," etc., prove that it was not intended at present to designate my proposal as an *improvement*. The italics are Mr. Jessop's. Indeed, the last clause of Mr. Jessop's letter clearly shows that my proposal was altogether of a suggestive, and not of a positive, character. The greater part of Mr. Jessop's letter is occupied with a defence of "Teale's amputation", and with quotations from the book of that truly eminent surgeon; but, with all respect, this is not the question. An improvement has been suggested; and to this point I am anxious to direct the attention of surgeons. I disclaim altogether any desire to detract from Mr. Teale's universally acknowledged renown, and hope Mr. Jessop will give me credit for this statement. I trust I do not misinterpret Mr. Jessop by expressing my belief that all his objections to my proposal are based on, and involved in, the retraction of the soft tissues posteriorly after their division. But, as I have already declared my views on this subject, I need not refer to them again. Neither have I any answer to make to Mr. Jessop's prediction. Time can alone decide whether he shall be classed among the true or the false prophets.

I am, etc., J. H. Wharton.

Dublin, November 1868.

MEDICAL GRIEVANCES AND PARLIAMENTARY CANDIDATES.

Sir,—In one of my lectures on Public Health, delivered in the Royal College of Surgeons last summer, I directed public attention to the grievances under which the Irish Poor-law medical officers suffer. I have written upon this subject to two or three of my friends, who are candidates for Parliamentary honours; and I have received from one of them—Mr. Purcell, Q.C.—the enclosed very satisfactory reply. I sincerely hope that, in the interests of the medical profession, Sir Dominic Corrigan, the eloquent upholder of their rights, may be returned to Parliament by some constituency; but, in the meantime, it would be well to obtain promises from Parliamentary candidates, that they would, if elected, aid in removing the disabilities of which the medical branch of the civil service so justly complain.

I am, etc.,

Dublin, October 1868. Charles A. Cameron.

The following is Mr. Purcell's reply.

"71, Harcourt Street, October 22nd, 1868.

"My dear Cameron,—I entirely concur with you in the view which you take of the Poor-law medical officers' claim to a superannuation allowance. I cannot see in what way their case is to be distinguished from that of officers of other departments of the public service. Having, as you are aware, four sons in the medical profession, three of whom are in the public service, I naturally feel a deep interest in the welfare of that profession. I have, therefore, no hesitation, in reply to your inquiry, in stating that, should I be elected to represent the University, I shall specially devote myself to the interests of the profession, and to the removal of those grievances of which its members have so justly a right to complain. You are at liberty to make what use you please of this communication.

"Yours very sincerely,

"Theobald Andrew Purcell.

"Charles A. Cameron, M.D."

MEDICAL CHARITIES.

Sir,—An incorrect report of my remarks, in closing the discussion on Medical Charities at the recent Social Science Congress, has appeared in the British Medical Journal of October 24th. I am made to say, in effect, that any successful system of medical aid to the poor must be based upon mutual assurance. Certainly, I never uttered anything which ignored so completely all the great public eleemosynary and legal provisions of medical relief in this country. What I did say was nearly as follows.

"If any *self-supporting* provisions of medical aid to the poor were to succeed, it must be based upon sound principles of mutual assurance. Now, in all the plans which have been brought before us to-day, I have not heard the slightest approach to such principles. The so-called 'provident' system, as it has now been put before us by several gentlemen is not really a provident, but mainly a *charitable*, system, under the guise of a self-supporting or provident title."

It is the more important that I should not be misunderstood on this point, as I find that the Birmingham discussion is to form part of the subject for conversation at the house of an accomplished physician in London on an early occasion.

I take this opportunity of referring your readers to a more thorough examination of this question of "provident" dispensaries, in my *Essays on State Medicine;* namely, at pp. 158-162 (historical); at pp. 256-259, *et seq.* (administrative); and in the Appendix, p. 414, where I attempt to lay down the principles on which mutual assurance might be applied to a self-provision of medical attendance by the working classes.

I am, etc., H. W. Rumsey.

Cheltenham, November 1868.

OBITUARY.

RALPH FORBES LEITH, M.D.

Died on Saturday morning, the 22nd of August, at Bel Air House, Carriacou, after six days' painful illness, Dr. Ralph Forbes Leith, health-officer of Carriacou, leaving a young widow and many relatives and sorrowing friends to deplore his loss. Dr. Leith, by his kind heart and affectionate manner, had endeared himself to all in Carriacou, where he has proved a most warm-hearted, thoughtful, and faithful attendant on the sick and dying; and his early death is deeply lamented by all.—From *St. George's Chronicle and Gazette.*

EDWARD SCHOLFIELD, M.D.

We much regret to have to announce the death of Dr. Scholfield, who practised as a physician at Doncaster for forty years, and who deservedly stood at the head of his profession in that town and neighbourhood. He was a magistrate for the county and borough, filled several important public appointments, and was held in such esteem, not only by his medical brethren, but by the public at large, that his loss is deeply felt, and a void is created, difficult, if not impossible, to fill up. Dr. Scholfield was noted for his benevolence, his disinterestedness, his kind disposition and urbanity of manner, and he was ever ready to aid with his counsel and advice all those who stood in need of it. Amongst his professional *confrères,* the writer of these few lines has every reason to speak of him in the highest terms for his devoted attention and kindly sympathy at a time of the deepest domestic affliction. His funeral was such an one as has rarely been witnessed in Doncaster. All business was suspended; the mayor and corporation, with the medical and other members of the learned professions, and perhaps every tradesman in the town paid the last tribute of respect by following his remains to the tomb. To perpetuate the name and good deeds of this lamented physician, a memorial is in process of being instituted, which is likely to assume the form of a "Scholfield Convalescent Fund," in connection with the Doncaster Infirmary, such being considered most in accordance with the feelings of the deceased gentleman.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Nov. 11th to 17th (both inclusive).

Taken at Kew, by Dr. Treutler, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	30.345
Highest reading of do. (corrected and reduced), on 13th, 10 A.M.	30.659
Lowest ditto Ditto on 11th, 10 A.M.	30.192
Range of pressure during the week	00.467
Mean temperature of the air in the shade	42.9
Mean temperature of evaporation	41.0
Mean temperature of dew-point	40.8
Mean degree of humidity (saturation=100)	85.0
Mean maximum temperature of the week	45.3
Mean minimum temperature of the week	39.1
Calculated mean temperature of the week	42.2
Maximum temperature of air in shade, on 12th	47.0
Minimum temperature (protected), on 16th	28.8
Minimum temperature (exposed on grass), on 16th	22.8
Range of temperature during week	24.2
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 15th	62.5
Lowest ditto ditto on 17th	47.2
Mean amount of clouds (0—10)	9.0
Total rainfall (which fell on 17th)	0.22 inch
Mean amount of ozone (0—10)	1.1

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	1	4	1	0	0	0	0	0	1	2.0
2 P.M.	2	4	1	0	0	0	0	0	0	2.3
10 P.M.	1	3	1	0	0	0	0	0	2	1.1

Mean force of wind (0—12) 1.5

The weather of the week has been for the most part dull and gloomy. Atmospheric pressure increased to an unusual extent during the week, attaining its maximum on the 13th—30.659. Since then it has been fluctuating, but within very moderate limits. The mean height of the barometer has been nearly half an inch (.429) above that of the week before. Temperature has again increased slightly, and has been more uniform. Winds have been light, and have ranged altogether between the north and east. The sky has been almost constantly and completely obscured by clouds. The general health is good.

Kew, November 18th, 1868.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on Nov. 17th:—

Baines, Albert Henry, Leicester (Guy's)
Barkas, William James, Newcastle-upon-Tyne (Newcastle School)
Bell, John Albert, L.S.A., Rochester (St. Thomas's)
Buckley, Samuel, Royton, Lancashire (Manchester School)
Carr, John, L.S.A., Scarborough (Guy's)
Giles, John, L.S.A., Beaconsfield (St. Bartholomew's)
Goodhart, James Frederick, L.R.C.P.Lond., Brighton (Guy's)
Hill, John de Vere, Liverpool (Liverpool School)
Jones, John Thomas, L.S.A., Llanfyllin, Montgomeryshire (Guy's)
Lawson, Archibald, M.D. New York, Halifax, Nova Scotia (King's College and New York Schools)
Moseley, Litchfield Jones, New Kent Road (Guy's)
Nettleship, Edward, L.S.A., Kettering (King's College)
Norton, John Alexander (Bristol School)
Ravenhill, Thomas Holmes, Stonehouse, Gloucestershire (Birmingham School)
Rigg, Charles Frederic, Wigan (Manchester School)
Skinner, S., M.B.Aberd., Upper Bedford Place (Aberdeen and Bristol Schools)
Southam, John Binns, Manchester (Manchester School)
Vialls, Edmund, Peckham, Surrey (London)
Wintle, Henry, Bristol (Bristol School)
Woods, George Arthur, L.S.A., Southport (Liverpool and St. Bartholomew's)

It is stated that three candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their hospital studies for six months.

Admitted members on Nov. 18th:—

Evans, Thomas Walter, L.S.A., Llanymawddwy, Merionethshire (Guy's)
Field, Albert F., L.R.C.P.Edin. & L.S.A., Canterbury (St. Bartholomew's)
Fox, James Thorniley, L.S.A., Manchester (Manchester School)
Glencross, Frederick John, L.S.A., Devonport (St. Bartholomew's)
Hall, Francis de Haviland, Tottenham (St. Bartholomew's)
Hurlstone, Adam Payton, Cheltenham (University College)
Lewis, William Bevan, L.S.A., Cardigan (Guy's)
Lyttleton, William Margrave, M.D. Coll. of Phys. and Surgs. of New York, Dublin (King's College)
McGill, Arthur Fergusson, Featherstone Buildings (King's College)
Minter, Edward Withers, L.S.A., Southsea, Hants (University College)
Pilkington, Henry Oldfield, Preston (Manchester School)
Rugg, Baron Alfred, Grove Road, St. John's Wood (University College)
Smith, Thomas, L.S.A., Crawley, Sussex (St. Bartholomew's)
Walsh, Patrick Charles, Boyle, co. Roscommon (Dublin School)

On this occasion, six candidates failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their hospital studies for the usual period of six months.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 12th, 1868.

Boyd, Herbert, St. Mary's Hospital
Marsh, Francis Baines, 4, High Street, Bloomsbury
Moudelet, William Henry, St. Thomas's Hospital
Pedler, George Henry, King's College Hospital
Sedgwick, Henry, 79, New North Road, N.

At the same Court, the following passed the first examination.

Collins, Edward Lorton, Guy's Hospital
Griffin, Innis, University College
Morrish, Richard Alfred, St. Mary's Hospital

As an Assistant in compounding and dispensing medicines.

Fain, William, High Street, Guildford

MEDICAL VACANCIES.

The following vacancies are declared:—

ARDEE UNION, co. Louth—Medical Officer for the Collon Dispensary District.
AUCKLAND UNION, Durham—Medical Officer for the Whitworth (a new) District.
BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Surgeon.
BRAMLEY UNION, Yorkshire—Medical Officer for the Bramley District.
CITY DISPENSARY, Watling Street—Physician.
COVENTRY AND WARWICKSHIRE HOSPITAL—Physician.
EASINGWOLD UNION, Yorkshire—Medical Officer for the Easingwold District.
ENNISCORTHY UNION, co. Wexford—Medical Officer for the Newtownbarry Dispensary District, and for the Fever Hospital.
FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, Holborn—Surgeon.
GLASGOW EYE INFIRMARY—Surgeon.
HAMBLEDON UNION—District Medical Officer.
HILL TOP AND DISTRICT FRIENDLY SOCIETIES—Surgeon.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Physician.
LIVERPOOL SOUTHERN HOSPITAL—Junior House-Surgeon.
LOUTH DISPENSARY, Lincolnshire—Consulting-Surgeon.
MACCLESFIELD UNION—Medical Officer for the Townships of Whaley, Taxal, and Kettleshulme.
NEWPORT UNION, co. Mayo—Medical Officer for the Achill Dispensary District.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
QUEEN'S HOSPITAL, Birmingham—Physician.
ROCHESTER, CHATHAM, AND STROOD DISPENSARY—Dispenser.
ROYAL INSTITUTION OF GREAT BRITAIN—Fullerian Professor of Physiology.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ST. GEORGE DISPENSARY, Mount Street, Grosvenor Square—Surgeon.
ST. JOHN'S WOOD AND PORTLAND TOWN PROVIDENT DISPENSARY—Surgeon.
ST. PANCRAS—Medical Officer of Health.
STOKE NEWINGTON DISPENSARY—Assistant to Resident Medical Officer.
TRINITY COLLEGE, Dublin—Professor of Botany.
UNIVERSITY COLLEGE HOSPITAL—Physician to the Skin Infirmary.
WESTMINSTER GENERAL DISPENSARY—Physician.
WESTMINSTER HOSPITAL—Resident House-Surgeon.
WEST WARD UNION, Westmorland—Medical Officer for the Eamont Bridge District.

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Richmond Infirmary.—On Sunday last, the 15th, sermons were preached, and collections made in many of the churches and chapels of the town in aid of the funds of the Richmond Infirmary, Surrey, and the following amounts have kindly been forwarded to the treasurers. Parish Church, Richmond, £37:18:8; St. Matthias, £48:4:7; per the Vicar of Richmond. The Roman Catholic Chapel, £18:10; the Wesleyan College Chapel, £6:10:4; the Parish Church, Twickenham, £8:1:4. The Vicars of Kew, Petersham, and Ham, have also promised similar aid towards the end of the year.

To Dermatologists.—Next Wednesday, at the Hunterian Society, a paper is announced by Mr. Hutchinson on Some Points in reference to Skin Diseases. We are informed that it will consist mainly of attempts to give concise clinical definitions of some of the terms in use, in the hope that, by public discussion, some of the deplorable confusion and vagueness which prevail as to dermatological nomenclature may be removed. The Society meets in the rooms of the London Institution, Finsbury Circus at 8 o'clock, and we have no doubt that any non-member desirous to assist in the discussion would easily obtain admission.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Francis Mason, "A Successful Operation for Cleft Palate in Child, aged 5"; Mr. Maunder, "On Primary Excision of the Joint, with Exhibition of Cases"; Dr. Kelburne King, of Hull, "On Carbolic Acid and the Antiseptic Treatment in Surgery."

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Althaus, "On the Physiology and Pathology of the Fifth Pair of Cerebral Nerves"; a paper by the late Dr. Hillier, "On Congenital Hydronephrosis."

WEDNESDAY.—Hunterian Society. 8 P.M. Mr. Hutchinson, "On Certain Forms of Skin-Diseases."—Society of Arts, 8 P.M. Mr. Davenport, "On a Glance at the Past and Present of the Society of Arts, with some Suggestions as to the Future."

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society, 8 P.M. Dr. Powell, Cases of Fibroid Phthisis. Mr. Bruce, Tracheotomy for Acute Laryngitis. Dr. Crouch, Primary Amputation for Gunshot-wound. Dr. Beigel, Cases of Epilepsy.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

PRESTON'S ESSENCE OF ALMONDS.

A CHEMICAL examination, which we have had made, of Preston's Essence of Almonds, has shown that it is free from prussic acid, to the presence of which much of the oil of bitter almonds commonly to be met with owes the major portion of its poisonous qualities. It is, therefore, comparatively innocuous, and admirably suited for culinary use. The entire class of substances to which hydride of benzoyl belongs are, however, to a certain extent, toxic in their effects, and it must not be used in excessive quantities. No such substance can be absolutely innocuous.

THE GENERATION OF SULPHUROUS ACID.

SIR,—I wish to learn, through the medium of your JOURNAL, the best means of generating sulphurous acid for inhalation and fumigation; also, the best way of applying it for either purpose. I am, etc., AN ASSOCIATE.

DISLOCATION OF FEMUR IN EARLY LIFE.

SIR,—Allow me to add the following to the cases related by Mr. Birkett on page 364. On August 8th, I was called to Alfred Buddle, a pauper patient, aged 10, at the village of Westow, Hunts. He had been thrown from a cart. Signs of dislocation of the right femur were well marked; and movement of the head of the bone on the dorsum ilii was distinctly perceptible. Being three miles from home, and without chloroform, I resorted to manipulation. As a result of the processes of flexion, abduction, and rotation, the bone returned with a distinct report to the acetabulum. I am, etc., D. M. SERGEANT, M.D.

THE LATE MR. JUMP.

THE following additional subscriptions received by the Rev. G. W. Winter, Litcham. Rev. W. H. W. Keppel, £10; per T. M. Kendall, Esq., £5; T. Palmer, Esq., £5; Miss Morse, £5; Dr. Mills, Norwich, £1; Mr. Chamberlin, £2 : 2; Mr. J. V. Chamberlin, £1 : 1; Mrs. R. Thompson, £2 : 2; Mrs Boyce, Ashill, £10; Rev. C. Campbell, £3; Mr. Cook, £2; Rev. J. Arthy, £1; Mrs. Arthy, £1; Mrs. Jary, £1; anonymous, 9s.; Miss S. Jex-Blake, £1; Mr. Chubb, Torpoint, 4s. 6d.; T. S. Guppy, M.D., Falmouth, £1; F. G. Johnson, Esq., Norwich, £5; by ditto, £3; Rev. V. Raven, £1; Mr. Carter, Litcham, £1; Mr. Wiffin, Tittleshall, £1; Mr. Betts, Tittleshall, £1; Mr. John Rix, Tittleshall, £1; Mr. F. Bird (E. Lexham), 10s.; Mrs. James Sutton, £1; "To the Fatherless and Widow", £5; P., Lynn, £1; J. B., Edinburgh, £1; M. B. D., £1; Dr. Eade, Norwich, £2 : 2; Q.E.D., £1 : 1.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

ORGANIC MATTER AND SODA-WATER.

SIR,—In your Report on the Mineral Waters of Commerce, reference is made to the disagreeable smell of "dead" soda-water, which is, no doubt justly, attributed to the organic matter originally present in the water used for the manufacture. That this is really the cause has been long known to the manufacturers of these waters; and it is equally well known to them, that a simple remedy is at hand for the removal of it; namely, the filtration of all the water required for their manufactures. This may be accomplished to any extent by means of the main service filter; and we can only attribute the disinclination of manufacturers to adopt this, to a mistaken parsimoniousness. Yours, etc., THE SILICATED CARBON FILTER CO.

London, S.W., November 1868.

TREATMENT OF SYPHILIS.

SIR,—I should feel obliged to Dr. Drysdale, if he would inform me on the following points. What are his real views with regard to the treatment of syphilis? Why has he abandoned the treatment by chlorate of potash, which for some years he has loudly proclaimed to be eminently successful? And what has caused him to change his opinion with respect to the use of iodide of potassium? Formerly, Dr. Drysdale held that this latter drug was useful only as an antidote, where mercury had been employed; now he tells us, that he has "scarcely ever as yet been so unfortunate as to see a case of syphilis in adults, where that detestable drug (mercury) had not been used, whose after symptoms were not easily amenable to the effects of large doses of iodide of potassium."

During the last six years, as Physician to the Dispensary, I have seen a great deal of syphilis; and I can state most positively that, valuable as the iodide of potassium is, there are cases innumerable which are unaffected by any drug but mercury. For the good effects of this drug, it is unnecessary to touch the gums.

Maida Hill, Nov. 1868. I am, etc., R. S. SISSON, M.D.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Wiltshire County Mirror, Nov. 18th; The Sussex Advertiser, Nov. 10th; The Aberdeen Journal, Nov. 11th; The Aberdeen Free Press, Nov. 13th; The Aberdeen Herald, Nov. 14th; The Edinburgh Evening Courant, Nov. 18th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. W. W. Inglis, London; Dr. Reith, Aberdeen; Dr. Embleton, Newcastle-upon-Tyne; Mr. C. Roberts, Northampton; Mr. J. Waring-Curran, Spalding; Dr. Heslop, Birmingham; Mr. T. Davison, Dublin; Messrs. Fannin and Co., Dublin; Dr. J. Lowe, Lynn; Dr. Wolfe, Glasgow; Dr. Ellis, London; Mr. T. Watkin Williams, Birmingham; Dr. Bagshawe, Menton; Dr. H. Behrend, London; Mr. G. Weller, Wanstead; Mr. J. Heelis, Skipton; The Secretary of the Faculty of Physicians and Surgeons, Glasgow; Mr. W. Watson, London; Mr. Newton, Cranbrook; Dr. Warwick, Richmond; Dr. A. P. Stewart; Dr. Beale, London; Dr. T. K. Chambers, London; Dr. Leared, London; Dr. Rumsey, Cheltenham; Dr. Mapother, Dublin; and Dr. Belcher, Dublin.

LETTERS, ETC. (with enclosures) from:—

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BOOKS, ETC., RECEIVED.

Health and Meteorology of Newcastle and Gateshead. Fourth Report of 1868. By G. H. Philipson, M.A., M.D. 1868.

A Manual of Elementary Chemistry, Theoretical and Practical. By George Fownes, F.R.S. Tenth Edition, Revised and Corrected. London: 1868.

The Hydropathic Record and Journal of Water-Cure. Malvern, London, and Glasgow: 1868.

The Elements of Heat and of Non-Metallic Chemistry. By Frederick Guthrie. London: 1868.

A Manual of the Diseases of the Eye. By C. Macnamara. London: 1868.

Report on the Proper Principle of Drainage to be adopted in the Towns of Oxford, Eton, Windsor, and Abingdon. 1868.

An Appeal to the Electors of Great Britain and Ireland, by the "Times" of India. Bombay: 1868.

Report on the Sanitary Condition of the Whitechapel District for the Quarter ending 26th September, 1868. By John Liddle. London: 1868.

Syphilis and Local Contagious Disorders. By Berkeley Hill, M.B.Lond., F.R.C.S. London: 1868.

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(*Continued from page* 540 *of last number.*)

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Chevallier, Barrington, M.D. Physician to the East Suffolk Hospital, The Grove, Ipswich
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Durrant, Christopher Mercer, M.D. Physician to the East Suffolk Hospital, Ipswich
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Bottomley, George, Esq. Croydon (dead)
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Chaldecott, Thomas A. M.D. Chertsey
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Ray, E. R. Esq. Dulwich
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Baker, Alfred, Esq. Surgeon to the General Hospital, Birmingham
Baker, Robert L. M.D. Leamington
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Bucknill, S. Birch, M.D. Rugby
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Chavasse, Samuel, Esq. Birmingham

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Clay, John, Esq Professor of Midwifery in Queen's College, Newhall Street, Birmingham
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Cox, Henry, Esq Camp Hill, Birmingham
Crighton, R. W. M.D. Leamington
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Gamgee, Joseph Sampson, Esq. Surgeon to the Queen's Hospital, Birmingham
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Jeaffreson, S. J. M.D. F.R.C.P. Physician to the Warneford Hospital, Leamington
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Johnstone, James, M.D. Leamington
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Steell, Frederick, M.D. Resident Surgeon to the General Hospital, Birmingham (dead)
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Wade, W. F. M.B. Physician to the General Hospital, Birmingham
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Wood, H. Esq. Hospital for Children, Birmingham
Wood, --, M.D. Queen's Hospital, Birmingham
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Wyer, Otho Francis, M.D. Nuneaton
Wyley, Francis, Esq. Coventry
Wyllie, John, M.D. Birmingham
Wyman, George, Esq. Alcester
Yates, George, Esq. Surgeon to the General Dispensary, Paradise Street, Birmingham

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Fothergill, J. M. M.D. Morland, Penrith
Green, Thomas, M.B. Kendal
Harrison, Robert, Esq. Ambleside
Henderson, J. F. M.D. Kirkby Stephen

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Flower, Frederick J. Esq. Broadchalk, Salisbury
Gardner, James, L.R.C.P.Ed. Box
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Green, J. Lardner, Esq. Tisbury, Salisbury
Haynes, S. L. M.D. Superintendent of Laverstock House, Salisbury
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Kinneir, Richard, Esq. Malmesbury
Little, E. M. Esq. Shaw
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West, William Corner, L.R.C.P.Ed. Malvern
Williams, James, M.D. Malvern
Williams, Philip Henry, M.D. Senior Physician to the Infirmary, Worcester
Woodward, Martin, Esq. Pershore

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Griffith, Thomas Taylor, Esq. Consulting-Surgeon to the Infirmary, Wrexham
Heaton, F. H. M.B. Wrexham
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Hughes, William, Esq. Llanrwst
Jenkins, Josiah R. M.D. Ruthin
Jones, George Turner, L.R C.P.Ed. Superintendent of the North Wales Lunatic Asylum, Denbigh
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Owen, Thomas, Esq. Abergele
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Robertson, John, M.D. Llangollen
Turnour, Arthur E. M.D. Senior Surgeon to the Infirmary, Denbigh
Williams, Edward, M.D. Wrexham

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Jones, Richard, Esq. Flint
Jones, Thomas Evans, Esq. Llanasa
Platt, Robert, Esq. Leeswood, Mold
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Roberts, Robert P. Esq. Rhyl
Theed, Frederick, Esq. Rhyl
Williams, G. Harvey, M.D. Rhyl
Williams, James, Esq. Surgeon to the Flintshire Dispensary, Holywell
Williams, William, M.D. Mold
Wolstenholme, John H. Esq. Holywell

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Morgan, Walter, Esq. Pont-y-Pridd
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Ogston, Francis, M.D. Professor of Medical Jurisprudence in the University, Aberdeen
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Laycock, Thomas, M.D. Professor of the Practice of Physic in the University of Edinburgh, Rutland Street, Edinburgh
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Rutherford, William, M.D. Edinburgh
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Spence, James, Esq. Surgeon to the Royal Infirmary, and Professor of Surgery in the University, Edinburgh
Stewart, T. Grainger, M.D. Pathologist to the Royal Infirmary, Edinburgh
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Gibson, W. Lockhart, M.D. Consulting Physician to the Royal Infirmary, Dundee

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Fergus, Andrew, M.D. Glasgow
Gairdner, William T. M.D. Professor of Medicine in the University, and Medical Officer of Health to the City, Glasgow
Kelly, Adam L. M.D. Glasgow
Lister, Joseph, M.B. F.R.S. Professor of Surgery in the University, Glasgow
Mackintosh, Alexander, M.D. Superintendent of the Lunatic Asylum, Gartnavel, Glasgow
Macleod, G. H. B. M.B. Lecturer on Surgery in Anderson's University, and Surgeon to the Royal Infirmary, Glasgow
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Thomson, Hugh, M.D. Glasgow
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Harkin, Alexander, M.D. Belfast
Hill, James M.D. Belfast
Holden, J. S. M.D. Glenarm
Johnston, H. M. Esq. Belfast
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MacCormac, William, M.D. Surgeon to the Hospital, Belfast
Orr, Gowan, M.D. Ballylesson, Lisburn
Patten, James, M.D. Lisburn
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Reade, Thomas, A.B. M.B. Belfast
Reid, J. Seaton, M.D. Professor of Materia Medica in Queen's College, Belfast
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Stephenson, Robert, M.R.C.P. Lond. Consulting Physician to the General Hospital, Belfast
Taylor, William, Esq. Ballymoney
Wheeler, Thomas K. M.D. Belfast

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McKinstry, Robert, M.D. Resident Physician to the District Lunatic Asylum, Armagh
Patton, Alexander, M.B. Tandragee
Pratt, Joseph, L.K.Q C.P. Markethill
Savage, Marc A. L.R.C.P.Ed. Armagh

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McDowel, Charles W. M.B. Carlow

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REMARKS

ON

THOSE SECRETIONS WHICH ARE, AND ON THOSE WHICH ARE NOT, THE MEANS OF COMMUNICATING CONSTITUTIONAL SYPHILIS.*

By HENRY LEE, Esq.,
Surgeon to St. George's Hospital.

CASE I.—L. W., aged 23, was admitted under my care into St. George's Hospital on the 17th of June, 1868. There was then an oval sore upon the left labium, about an inch and a-half long, and half an inch broad, surrounded by well-defined induration. The surface of the sore was red, glazed, and presented no appearance of healing. The corresponding glands in the groin were enlarged, accurately defined, and not painful. A secondary eruption was commencing on the hands and on the chest. On June 19th, the secretion from the sore was inoculated in two places. On June 21st, the sore was dressed with savine ointment, so as to produce a copious secretion, which was inoculated in three places on the 22nd. On the 23rd, two fresh inoculations were made. All these inoculations proved negative.

CASE II.—G. D., aged 18, was admitted under my care on June 17th, 1868, with a soft oval sore on the upper part of the left thigh. The edges of this sore were well defined, and it secreted a large amount of pus. There was no enlargement whatever of the inguinal glands; and there was not the slightest appearance of any eruption on the skin during the time the patient remained under observation. On June 18th, a common sewing-needle was used for the purpose of inoculating; and three inoculations were made. On June 25th, three small circular ulcers, with sharply cut edges, and a free discharge of pus from their surfaces, had appeared in the situation of the three inoculations. Some pus from one of these was taken on a sewing-needle, and again inoculated on June 30th. This inoculation produced a sore, smaller in size, but of exactly the same character as those produced by the inoculation of the 18th. On July 15th, all the sores were healed.

The two cases now read are typical, and represent two very distinct morbid processes. In the first, there was specific induration at the seat of the primary affection, enlargement of the lymphatic glands, and constitutional disease; in the second, there was no specific induration around the original sore, no enlargement of the inguinal glands, and no constitutional disease. In the first case, the secretion from the sore was not inoculable upon the patient; in the second, it produced the specific pustules, which were re-inoculable. Neither of these patients had had any other syphilitic affection. It would, therefore, appear that the disease described had been the means of infecting the patient's constitution in the first case, and that it did not do so in the second.

The experiments with regard to inoculation above mentioned I have repeated a considerable number of times; and, where care has been taken, the results have always pointed to the same general laws; namely, 1. That an uncomplicated indurated sore is not inoculable upon the patient himself after it has infected his constitution; and 2. That the secretion of the suppurating sore is inoculable upon the bearer (whether affected with constitutional syphilis or not), so as to reproduce the same kind of disease, the secretion of which is again re-inoculable. In speaking of the inoculability of a secretion, I wish to be understood to mean that, so inoculated, it produces either a sore with specific induration, or the specific pustule, capable of being re-inoculated on any ordinary patient. A single pustule, or a number of pustules, may, under certain circumstances, be produced by the inoculation of ordinary pus; but the pustules so produced have not the sharply cut edges of the specific pustules; nor are they, as far as I know, capable of being re-inoculated in the same way. The accompanying drawing represents a pustule produced by the inoculation of some pus taken with a clean lancet from a case of excision of the knee-joint in a child. The inoculation was performed upon an adult patient who had constitutional syphilis; and the appearances are represented on the fourteenth day after the inoculation was performed. There is a well-developed pustule, as large as an ordinary inoculation from a suppurating sore. It wants, however, the sharply cut edges of the specific pustule, and the secretion from it was not again inoculable.

In a paper published in the *British and Foreign Medico-Chirurgical Review* for April 1859, the results of my original experiments (which have not always been acknowledged by those who have repeated them) are given; and I am anxious to quote one passage from that paper, because some writers have appeared to think that in it I represented the inoculations from the indurated sores (when any such occurred) and the inoculations from the suppurating sores as identical. "Having observed," I state, "that the indurated sore was inoculable under certain states of irritation, a blister was applied to some indurated sores; and subsequently they were dressed with the unguentum sabinæ. By these means I obtained a free secretion of pus from these sores; and it was found that the secretion, before incapable of producing any effect upon the patients themselves, could now be inoculated. The results of these inoculations have been quite different in their course to those which follow ordinary inoculation from suppurating sores." (P. 500.) According to my experience, the laws which govern the development of the two kinds of disease above described are as distinct as those which regulate any other morbid processes in the body. On account, however, of the time that the infecting kind of syphilis requires before it appears in its characteristic forms, it is liable to be masked by, and confounded with, other actions; and much uncertainty and confusion has consequently prevailed, not only with regard to the ideas generally received, but in the writings of medical men who appear to have paid particular attention to this subject.

In a Report to the Right Hon. the Lords Commissioners of the Admiralty and the Right Hon. the Secretary of State, by a Committee lately appointed to inquire into the best mode of treating syphilis, the prevailing want of accuracy in the description of the different forms of the disease is evident. The Committee examined sixty-four witnesses, and have produced an elaborate Report, extending with the minutes of evidence, over upwards of six hundred closely printed pages. The Committee state that the simple local sore never extends its influence beyond the inguinal glands, and is incapable of infecting the constitution (p. vii). In the next paragraph, however, a soft sore is described which "is followed by constitutional disease". Now, no means are given by the Committee for distinguishing the simple local sore from the soft sore which infects the system; and it is not, therefore, surprising that they should arrive at the conclusion that, "whether a given local affection will result in syphilis, cannot be known with certainty until the constitution is actually involved" (p. vi). Surely something more definite than this is required from students who undertake to interpret the fixed laws of Nature—laws which regulate all diseased, as well as all healthy, actions. To state that a simple sore is local, only because it does not infect the constitution; and to imply that it does not infect the constitution because it is local,—is evidently to beg the whole question. The Committee state that, "however definite may be the laws that determine the history and progress of primary sores, a degree of obscurity always attaches to their future influence on the constitution, arising from the frequent apparent deviations from the laws which govern them." "Hard sores," they say, "do not necessarily contaminate the constitution; while, on the other hand, constitutional symptoms occasionally follow the presence of a sore which might have been regarded as a simple local sore." (P. ix.) If such a doctrine were admitted, our practice and our diagnosis would be most unsatisfactory and uncertain. If a patient, upon presenting himself, were told that he had a simple local sore only, but that, if his constitution became infected, it would then be syphilitic, he might fairly reply that his surgeon had not told him anything that, without any medical skill, he might not, to his cost, in time find out for himself.

The confusion which has prevailed with regard to the different kinds of venereal sores has been fostered by the experiments performed in what has been termed "syphilisation". It has been stated that soft chancres may be produced by the secretion taken indifferently from hard or soft sores.

Again: it being admitted that the secretion from some forms of secondary disease, when inoculated upon a virgin constitution, will produce an indurated sore:—it is stated that the secretion from such a sore, having its origin in constitutional syphilis, will give rise, by inoculation, to a soft chancre, which may be the means of infecting the constitution of another person. Thus, it is taken for granted that these two kinds of disease may, by a kind of metagenesis, produce each other; and that either, after a certain number of generations, may again be reproduced in its original form. Now, on the contrary, I maintain that the two forms of disease of which I have given instances at the commencement of this paper, are essentially distinct, and cannot produce each other. They may appear together at the same time and place, and they may be variously modified by different circumstances; but, when accurately observed, they will, I believe, be found always to follow their own fixed and definite laws.

Out of the very large number of cases on which the experiment has now been made, there has not been one, as far as I know, in which the inoculation of the secretion of the "specific pustule" has given rise to any constitutional syphilitic symptoms. Inoculations of this kind have, however, not been wanting on those who have not had constitutional disease, as well as on those who have. Dr. Boeck, in his great work on *Syphilis* (p. 686), mentions that M. Danielssen had inoculated a great number of lepers. None of these were affected by constitutional syphilis, with one exception. In this case, a leper, who was being treated by syphilisation, after having had two hundred and eighty-seven inoculations from the matter of a soft sore, was inoculated with the secretion from a hard sore. This was on September 28th; and, in February following, distinct constitutional syphilitic symptoms followed. If an exception were ever the means of proving a rule, surely it does so in the present instance. But Professor Boeck asks, How is it that the results of the inoculation appeared at the expiration of three days in this case, and not at the time when infecting sores usually manifest themselves? Now, in the first place, the pustules which were produced appear to have been very small (*loc. cit.*); and, secondly, Dr. Owre, who witnessed Dr. Boeck's experiments on syphilisation, and who was himself much impressed at one time with the efficacy of this mode of treatment, has published, in the *Medical Times and Gazette* for April 18th, 1868, a very important statement. He says: "No such care (in the practice of syphilisation) was shown in the selection of matter as, from the printed statements, would appear to have been taken; both kinds having really been used indiscriminately."

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* Presented to the Surgical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

Now, if this was the ordinary mode in which syphilisation was practised, we need not be surprised if, after making his inoculations with the matter from soft sores, M. Danielssen should not have wiped his lancet very carefully before he inoculated the secretion from the hard sore. We have thus a ready means of accounting for the production of the pustule, such as it was, in M. Danielssen's case; and, what is of very much more importance, we are furnished with the means of explaining how it was that Dr. Boeck came to conclusions with regard to the inoculability of the hard sore so very different from those arrived at by competent observers in France, Germany, and Italy, as well as in England. I would refer any gentleman who may wish further to pursue this subject, to Dr. Ricordi's work published in 1866.

In England, five cases have been published in which the secretion from an indurated sore was supposed, when inoculated, to give rise to ordinary soft chancres.

In some of these the matter used was taken from out-patients, and in others inoculations from the secretions of soft sores were being conducted upon the same patients at the same time. It is unnecessary here further to insist upon the facility with which an admixture of secretions may, in these cases, have taken place; and, under any circumstances, these five cases could not be placed in opposition to the immense number in which inoculation of the secretion from an indurated sore has failed. But it may be asked, Does not the fact of secondary symptoms occasionally appearing where a patient has had a soft sore only, prove that the secretion from such a sore may infect a patient's system? To this it may be answered, that something like an equal number of cases present themselves where there has been no sore, either hard or soft, and yet where a patient's system has become infected.

The following cases will illustrate this subject.

CASE III.—A gentleman came under my care with several well marked soft sores. After the lapse of a short time, one of the submaxillary glands became very much enlarged, with a distinct outline. Secondary syphilitic symptoms followed. Upon careful inspection, I now found a brown spot on the corona glandis. This continued, with occasional desquamations; but unattended by any pain, induration, or ulceration, long after all traces of suppurating sores and of the eruption on the body had disappeared. This was the spot, in my opinion, at which the poison had entered the patient's system, by what Hunter called physiological absorption. There was no affection of the inguinal glands in this case.

CASE IV.—A gentleman was sent to me by Mr. Forbes of Devonport Street, with a well marked syphilitic eruption. Every effort was made in this case to ascertain the means by which the poison had entered the patient's system. No trace of any kind could be found. There had been no sore, and the inguinal glands were not affected. In this case, again, physiological absorption had, I believe, occurred; and, if some soft sores had appeared during the time that this was taking place, it would in no way have interfered with the process.

The conclusion at which I have arrived, from all the facts and observations which I have been able to collect, is, that the pus from a simple suppurating sore (although that may have been produced upon a patient constitutionally syphilitic) will not communicate constitutional syphilis. If such pus be mixed with other secretions, such as those from mucous tubercles or with the blood of a syphilitic patient, then a two-fold inoculation may take place; and the pus may apparently be the means of communicating syphilis, when, in reality, it has only diluted the real infecting poison.

In like manner, if time permitted, I might shew that the products of other specific diseases, such as the lymph produced by vaccination (even in a syphilitic subject), when inoculated alone and free from admixture, will not communicate syphilis. We have here, I believe, indications of a general law; viz., that the secretion of no other specific disease in a syphilitic subject, if inoculated alone, will communicate syphilis. And this is quite analogous to what has been observed in other affections. It would appear that a specific poison inoculated on a constitution affected by another disease may produce its effects uninfluenced by that disease, however infectious or contagious that disease may be.

The following case is related in the *American Medical Times* for the 29th March, 1862.

A gentleman and his wife, with a daughter 3 years old, left their hotel in consequence of the appearance of small-pox. The child was vaccinated the day after with recent and active lymph. The formation of the vesicle progressed so naturally, that it was supposed that the child's constitution was protected against the small-pox. At the request of an intimate friend of the family, some lymph was taken from the vesicle on the daughter's arm, and inserted into the arm of another child. On the second day after this, the small-pox appeared on the child originally vaccinated. All the parties concerned, now became exceedingly anxious to know what the result would be on the second child. "To our great gratification," observes the vaccinator, "it proved to be only a benignant case of vaccine disease, which acted with ordinary mildness."

Another analogous, but much more important subject may be considered in connection with the previous observations; namely, whether the natural secretions in a syphilitic patient can communicate syphilis while the organs producing those secretions are not themselves specifically affected. My own opinion is, that they do not. But I mention this as a matter of opinion only, as far as the general principle is concerned. We are not, however, without evidence upon this point with regard to some of the natural secretions. A married woman was admitted into St. George's Hospital on October 5th, 1864. After her last confinement (having been previously quite healthy), she took a child to nurse in addition to her own. The strange child proved syphilitic. The woman had an ulcer on the breast, represented in the accompanying drawing. This was followed by a well marked syphilitic eruption.

This woman had taken the precaution to keep each child to one breast; and, although her own child was allowed to suck for six weeks after the eruption had appeared, yet it remained unaffected.

We have here the natural secretion going on in a syphilitic mother; the organ itself, which produced it, not being specifically affected. We have the constant contact of a diseased and healthy person, and the transmission of the secretion from one to the other, and yet no disease is imparted.

Few of the natural secretions of the human body have been accused of being the means of communicating syphilis. Besides the milk, the saliva and the semen are perhaps the only two which are supposed to be capable of transmitting the disease. There is no reason why these secretions in themselves should be more susceptible of the syphilitic poison than any of the other natural secretions of the body. If the organs which secrete them are not specifically affected, we cannot see why they should be more likely to contain the syphilitic poison than the urine or the bile. Now, all these secretions, before they pass out of the body, have to pass over tracts of mucous membrane. These portions of mucous membrane are peculiarly liable to secondary syphilitic affections; and, if the secretions in question become mixed in their passage with the products of specific inflammation, we may readily understand how they may be the means of carrying the disease, although, by themselves, they may have no power of communicating it. The fitful and uncertain way in which syphilis is imparted by hereditary transmission from the father, and the very small number of cases in which it has been supposed to be transmitted by the saliva, seem to point rather to some accidental causes of contamination, than to any inherent disease in the semen, or in the saliva, in syphilitic subjects. Such accidental causes at once present themselves to our minds when we contemplate the admixture of the diseased secretions of the mucous membranes with the proper secretions of the glands.

The conclusions to which I have arrived myself, and which I would submit for the consideration of others, are:

1. That the infectious form of syphilis is communicated by the secretions from both primary and secondary syphilitic affections.
2. That the secretion of other specific diseases (including the specific syphilitic pustule, and the sores which result from it) have no power of imparting constitutional syphilis.

3. That the natural secretions of glands in syphilitic subjects, when those glands are not themselves specifically diseased, have no power of imparting constitutional syphilis.

After the reading of the above paper, Mr. PAGET, the President of the Surgical Section, at which Mr. Lee's paper was read at Oxford, stated that the paper appeared to him to afford a fair explanation of those cases in which secondary syphilitic symptoms have followed, and have appeared to be the consequences of soft chancres; such cases had occurred to most surgeons, and yet so rarely in comparison with those in which secondary symptoms followed hard sores, that they seemed insufficient to disprove the law according to which hard chancre, or diseases derived from it, are the necessary precedents of secondary symptoms, the sole sources of constitutional infection. A law of this kind, if there be one, can have no exceptions. What seem to be such must, if the law exists, be erroneously or incompletely observed facts. And here the incompleteness of the observations in some of the assumed exceptions may have been, as Mr. Lee suggested, that a patient had had a soft chancre at or about the same time as he had been infected from a hard sore, the virus of which had traversed sound textures, and had produced in them too little change to be observed. It must have occurred to every one, seeing many cases of syphilis, to meet with patients, having secondary or tertiary symptoms, who have nevertheless been unconscious of having ever suffered primary disease. Such cases are commonly explained away or disbelieved. They might have been instances of infection through textures which were not observably contaminated by the transmission of the infecting material through them. Such a transmission is sometimes observed with the poison of dissections; and, although one might doubt much of what some believe respecting the derivation of pus-cells from exuded white blood-cells, yet it was quite certain that pus-cells, and others like them, might pass through membranes having no perceptible apertures, and might leave no visible traces of their passage. The doctrine of essential difference between infecting and non-infecting, hard and soft, chancres, was in the same position as many others in pathology. We seem to have discovered a general law; the facts in support of it are many; those against it are very few. We are justified in suspecting that these are incompletely or erroneously observed, and are not what they seem to be.

OBSERVATIONS SUGGESTED BY THE STUDY OF CASES OF CATARACT EXTRACTION.*

By CHARLES TAYLOR, M.D.Edin., F.R.C.S.E.,
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OWING to the recent and numerous improvements in the art of extractng for cataract, the selection of an operation in any given case becomes matter of no slight difficulty and importance. A thorough knowledge of the nature of the case, a perfect appreciation of the difficulties to be ndividually encountered, and some study and experience of each of the methods in vogue, are necessary to enable us to afford our patients that maximum chance of a successful result which they have a right to exect at the hands of all professing a knowledge of ophthalmic science. The age and previous history of the patient; the condition of his ealth; his peculiar idiosyncracies, and amount of nervous susceptiility; the condition of the cataract, as to hardness, softness, and preence of, or freedom from, degenerative changes, and the existence of laucomatous or amaurotic complications—all merit a degree of study nd consideration, the importance of which cannot be over-estimated, when we reflect that not only (as Mr. Critchett has observed) does the uccessful performance of this operation constitute one of the greatest iumphs of operative surgery of which our profession can boast, but so that to restore a fellow creature to sight must ever rank among the ghest and most gratifying of human achievements.

As I am aware that the time accorded to papers read at these meetgs will not permit a full discussion of the subject, I shall briefly reount the different methods of extraction now in use, detailing in each stance such observations and suggestions as the careful study of a rge number of cases has, I may say, forced upon me.

And, first, as to the old flap method. This operation, which is still most exclusively preferred by some leading ophthalmic surgeons, is rtainly, when perfectly successful, for beauty and faultlessness of result, without a rival. Unfortunately, as usually performed, the amount of risk involved in the operation confines it to carefully selected cases of fully developed cataract, occurring in patients with but slight constitutional contraindication, of great self-control, and in a condition of health which we seldom find in the aged, and frequently cachectic, individuals who are usually the victims of cataract in our large manufacturing towns. Beer's knife, or one or other of the modifications of his wedge-shaped keratome, are the instruments usually employed. Zehender's modification, which I show you, is the one I used to prefer; it is longer, narrower, and rounder on the edge than Beer's original knife, and consequently perforates the cornea more readily, is more easily managed, and completes the section with less difficulty than is usually encountered when the larger knife is employed. Either the upper or lower section may be adopted, according to the nature of the case; recovery takes place a few days sooner with the upper section, the occurrence of prolapse of the iris, inflammatory complications, and suppuration, being about as likely to occur in the one as in the other; and partial suppurations, or the irritation occasioned by remnants of cortical matter, usually terminates more favourably when the lower section is adopted, as these morbid products naturally gravitate downwards, and find a point of exit in the latter case denied to them in the former. It is also easier to operate by the lower section, and we are less dependent on the tractibility of the patient, and on assistance from others. Whether the upper or the lower section be used, the object of this method is to make a large flap of one-half of the cornea. The knife is entered at the transverse diameter of the cornea, about a quarter of a line from its edge, and carried parallel to the iris to a point of counterpuncture similarly placed; it is then pushed on, and the flap completed by turning its edge forward, and drawing it from heel to point until the section is finished; the capsule is then incised, and, by alternating pressure, the lens is turned on its axis, and tilted against the pupil, which slowly dilates, and permits its passage into the anterior chamber and exit through the incision. As before observed, in a favourable subject, and when performed without misadventure, the results of this operation are superior to those obtained by any of the modified methods which have recently been adopted in place of it. Unfortunately, such serious accidents are apt to occur both during the operation and subsequently to its performance, that we are limited in our selection of cases. Thus, the aqueous humour may escape prematurely; the iris may fold over the edge of the knife, and be seriously bruised or wounded. The eye may be pushed inwards by the blade, and there may be difficulty in making the counterpuncture; or, in completing the section, and when the flap is made, with a contracted pupil and the patient irritable and frightened, considerable difficulty may be encountered in rendering tense and incising the capsule. The iris is apt to be scratched, and the opening in the capsule too limited; while the involuntary winking and twitching of the patient's lids is sometimes sufficient to rupture the hyaloid membrane, even before the lens is extruded; or the cataract may be forced out with a gush of vitreous humour the moment the section is completed, the weak flap being forced forwards and at once reflected by spasm of the lids. Even when the operation has been successfully finished, the large size of the flap, in delicate thin-skinned patients, is apt to permit its retraction, and consequent malposition and necrosis; while the same cause, in addition to its situation in non-vascular tissue (apart from inflammatory mischief or excessive traumatic injury), will often seriously interfere with its nutrition. The passage of the bulky lens through the more or less contracted pupil also occasions considerable bruising of the iris, which is a fertile source of subsequent mischief; while the comparative longer time required for the wound to close permits frequent gushes of accumulated aqueous humour, during which the iris is forced between the lips of the incision, is apt to be trapped, spoil the cosmetic result of the operation, and occasion much subsequent mischief. If, from the nature of the cataract, too, small portions of cortical matter be left behind, the risk attending manipulation of the globe and the extreme danger of rupture of the hyaloid membrane renders it almost impossible to remove them. In fact, when once the section is completed, if any accident occur, the operator is, in the majority of cases, powerless, and can only close the lids, hoping, often against conviction, that the wound may heal, and permit of remedy at some future period.

It is the desire to avoid this helpless feeling in a matter of so much importance, which has led to the various modifications of extraction which I shall presently describe. As they all, however, involve the sacrifice of a portion of the iris, I shall first endeavour to point out such safeguards against the accidents which occur in ordinary extraction as have suggested themselves to me; these, I believe, will, in many cases, enable us to secure that which we must always consider as the highest good fortune—namely, a central and moveable pupil.

The accidents which are apt to occur from the patient's want of steadiness, from spasm of the lids, and involuntary motions of the eyeball, which interfere so seriously with the operator's manipulations, may all be overcome by the administration of chloroform; and I should resort to this anæsthetic at any stage of an operation, although commenced without it, did the patient demonstrate by his conduct that he was not possessed of that amount of self-control necessary to its successful completion. The occurrence of vomiting, which is the great bugbear of chloroform, so far as its use in cases of cataract-operation is concerned, may be guarded against by the administration of an efficient purgative the day previous, by interdicting supper, and permitting only a very light breakfast, with a small cup of tea four hours before the operation; while any feeling of faintness may be removed by the administration of two tablespoonfuls of equal parts of brandy and sherry, in sips, twenty minutes before commencing the extraction. Should vomiting occur in spite of these precautions, we may prevent its ill effects by the instant application of a compress bandage, which should, at the commencement of the operation, be secured above the brow by a strip of plaster, so as to be ready for use without disturbing the patient. Vomiting ceases to be a very serious symptom when met in this way; and I am not aware of any other objection to the use of chloroform. The ease with which the lens may be extracted in the dead subject, has often been remarked; and the conditions so favourable to operation in the dead may be very faithfully imitated in the living if the anæsthesia be only pushed far enough. By commencing the incision at the summit of the cornea, and limiting it (until the capsule is incised) to an extent of three or four lines, all risk from premature escape of aqueous humour, and consequent wound or injury of the iris, is abolished; while there is no difficulty in opening the capsule (so long as we may manipulate the eyeball with impunity)—a proceeding very much facilitated by a widely dilated pupil, an advantage which we may secure up to this point by the previous free use of atropine. It is true that the pupil contracts when the aqueous humour escapes; but not so much as it otherwise would; and an interval of a few minutes usually suffices to open it up sufficiently for our purpose. This partial paralysis of the circular fibres of the iris also considerably diminishes the amount of bruising which that tissue undergoes when the lens is subsequently extruded. In this way, I consider that many of the difficulties and dangers of ordinary extraction may be avoided; and nothing is easier than to enlarge the flap to any required extent by the use of a blunt-pointed knife (such as I pass round), cutting to the left while the eye is fixed with the right hand, and cutting to the right while it is fixed with the left. The dangers which we should still have to encounter arise from arrest of the lens (from adhesions or immaturity), rupture of the hyaloid membrane, prolapse of the iris, and reflection of the flap. If the lens should be arrested, and do not yield to such pressure as may be safely employed, it is better to pass a fine wire spoon (like the one I show you, made for me by Mr. Coxeter) as far as the outer margin of the pupil; then, by retracting the instrument, to draw open the pupil sufficiently to enable you to tilt over the lens on its axis, when by thrusting it onwards, the lens comes to lie in the concavity of the spoon, and may be safely extracted without passing it into the vitreous cavity.* Rupture of the hyaloid membrane is not very likely to occur if anæsthesia be perfect and the operator be very careful; but if it should, the risk from its occurrence is very much reduced, and prolapse of the iris, as well as reflexion of the flap rendered impossible by the employment of a suture. Suturing the flap, in cases of cataract-extraction, was practised by Dr. Bader of Guy's, seven years ago; and Mr. Williams of Boston has recently published a number of cases in which he has used it. Mr. Williams advises the application of the suture after the completion of the flap and the removal of the lens; but, I suspect, few surgeons will be induced to follow his example, as the extreme danger of so much manipulation as would suffice for the passage of a suture through the cornea when the operation is just happily over, one-half of that membrane converted into a flap, and every movement likely to rupture the hyaloid membrane, can scarcely be exaggerated. After several experiments, I am convinced that the only safe and convenient method of applying the suture is, to insert it before the capsule is opened; and, when the wound is only a line or two in extent, it may thus be passed with comparative ease and safety, the loop drawn through, and then, even if the hyaloid should be ruptured during the subsequent steps of the operation, the flap may be drawn up and tied securely. This accurate apposition of the flap prevents prolapse of the iris, limits the escape of vitreous humour, and affords so much security that cortical fragments may be removed by the sucker or scoop through the sides of the wound. By these means, I believe, we may save many cases of flap-extraction that would otherwise be lost, and also preserve that highest indication of success, the central and moveable pupil.

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* Read before the Midland Branch.

[*To be concluded.*]

ON THE USE OF ETHER AND ETHERISED COD-LIVER OIL IN THE TREATMENT OF PHTHISIS.*

By BALTHAZAR W. FOSTER, M.D., M.R.C.P.Lond.,
Professor of Medicine in Queen's College; Physician to the General Hospital, Birmingham; etc.

I NOW come to the second part of my task; namely, the therapeutical application of the foregoing facts. Having found, as I considered, sufficient evidence of the special action of ether on the pancreas, I determined to test the value of the discovery by administering ether in all cases characterised by inability to digest fat. In the out-patient departments of our hospitals, many such cases occur, which are generally classed as dyspepsia. Many cases of neuralgia are also to be met with in which a most decided improvement follows the increased power of absorbing fatty food. To both classes of patients I gave ether sometimes in combination with cod-liver oil, sometimes alone before meals. The results were most satisfactory; the oil was digested more easily and the nutrition of the patients greatly improved. Of these cases I shall speak more fully on a future occasion. I next ordered ether in mixture to all my phthisical patients at the General Dispensary, selecting the Dispensary for my investigations, rather than the Queen's Hospital, because all the patients were out-patients, and consequently exposed to no new and favourable conditions while the experiment was being tried. The patients being also of a somewhat better class than those attending the hospital, were not, as is so often the case in our large towns, struggling to combat a mortal disease while suffering from the effects of disease's chief ally—improper and insufficient food. For some months I pursued the treatment, seeing a very large number of consumptive cases, to all of whom ether either alone or in conjunction with cod-liver oil was administered; and the good effects were so decided, that I determined to investigate the subject more methodically, and to keep a careful record of each case. The good results observed in this preliminary inquiry were a return of the power of taking oil and fatty food, which had been previously distasteful or had even excited sickness: increased appetite, improved general nutrition and increase of weight, diminution of cough and expectoration, and cessation of night sweats. The general impression produced in my mind was so favourable, that I began my more exact inquiries with much confidence. In my first cases, the ether had been given in water with hydrocyanic acid and bicarbonate of potash, twenty-minim doses of ether to each ounce of the mixture. The ether was afterwards added to cod-liver oil, the æther purus of the *Pharmacopœia* being used, and about ten minims (9.259 m.) added to every two drachms of oil at first, afterwards fifteen and twenty minims were occasionally given in the same quantity of oil.† In some cases the ether was administered in water alone, and taken a short time before the oil. The effects were similar in all cases; but for convenience sake, and on account of its power of masking the unpleasant properties of the oil, I now, generally, give ether mixed with cod-liver oil, in the proportions mentioned. In my second and systematic inquiry, I treated fifty cases taken as they presented themselves at the Dispensary, each patient being carefully examined on admission and at least once every fifteen days during treatment. A brief record was kept of the progress of each case; but, from former experience, I determined in this inquiry not to accept the statement of the patients themselves as evidence of improvement, but only to consider those patients better in whom the result of a physical exploration of the chest, in addition to *decided increase* in weight, confirmed the statements made. I therefore weighed every patient once a week. As it would be impossible to give a record of each case in a communication such as the present, I must confine myself to a brief statement of the results obtained in the fifty cases.

Sixteen were admitted in the first stage of the disease; nineteen in the second stage; and fifteen in the third stage.

Of the sixteen in the first stage (or stage of deposition), seven improved in general symptoms and in physical signs, gaining on an average over 7½ lbs. each; five remained stationary, all gaining weight slightly; and only four became worse.

Of the nineteen cases in the second stage, six improved in all respects, gaining, on an average, about 8 lbs. each, two cases gaining 14½ lbs. and 10 lbs. respectively; six remained stationary; and seven became worse.

Of the fifteen cases in the third stage, seven improved, gaining, on an average, about 5 lbs. each; five remained stationary; and three became worse.

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* Dr. Macnamara extracts the lens in this way, but with a metal spoon; which, I think, takes up too much space.

* Concluded from page 544 of JOURNAL for November 21st, 1868.

† Mr. Peter Moller, of Oxford Street, has prepared for me some etherised cod-liver oil of excellent quality.

Of the total fifty cases, twenty improved, sixteen remained stationary, and fourteen became worse.

Six of the cases treated, in no instance for a less time than three months, and observed over a period of many months, retained their weight; were troubled by no symptoms, and maintained the improvement in their physical signs. Only one of these was observed over a less period than fifteen months, three over two years, and two over eighteen months. These cases may be considered, I think, as examples of the arrest of the disease, for the patients have returned to their ordinary avocations, and are able to earn their livelihood untroubled by their former disease. The only other remedies used in those cases were croton ointment, as a counter-irritant, Dover's powder occasionally to relieve the cough, and, in a few cases, a little linctus morphiæ. But, as cod-liver oil was administered as well as ether, the objection may very naturally be made that the improvement was due to the use of the oil. For my own part this objection has not much value, for I had long used oil largely without obtaining any results at all equal to those stated. In order, however, to meet this objection the ether was stopped in ten instances and the oil continued; six times there was a fall in weight during the following three weeks. In one case the patient, who had taken ether for some two months, continued to gain weight. In the three other cases the gain ceased, but was again observed in these patients, as it was in all, when ether was again administered.

These results are not only instructive, as showing the effect of ether in increasing weight, but also as showing that the digestion of fatty food is restored to its normal state, in many cases, after a long course of ether. In the cases which have done best under treatment, that is, the cases which I think we may consider instances of arrested phthisis, the power of taking fats, which was at one time much impaired, has returned, and the gain in weight has been maintained over a period of many months. I may here also add that, in all the fifty cases there had been marked wasting before my treatment was adopted, in at least half the cases, cod-liver oil notwithstanding. Many of my patients have over and over again expressed their preference for the etherised oil; and many who have been unable to retain ordinary oil when taken, have been able to use etherised oil, not only without disagreeable symptoms, but almost with pleasure: "to drink it from the bottle", as some have expressed it. In advocating a new method of treatment, it is most satisfactory to be able to appeal to confirmatory evidence. It gives me great pleasure, in the present instance, to be able to call as a witness, in behalf of my views, the Secretary of this Section, Dr. E. L. Fox, to whom I mentioned the advantage of prescribing ether in phthisis in April 1867. I had the benefit of discussing the subject with Dr. Fox at that time; and he has since been so good as to send me the results which he obtained. In the early part of this year, he wrote to me as follows: "I fear I have kept no precise records of the oil and ether question; but since you mentioned it to me, I have used it very fairly. I give it in two sets of cases: 1, those who are tired of taking cod-liver oil; and, 2, those who have been taking it without gaining weight. In the first cases, I find it useful, as the ether, half an hour after the oil, seems to settle the stomach; and, I believe, induces the digestion of the oil. The nausea felt by so many patients is, I think, merely evidence of the oil not being digested. In one hospital case, the man took oil for fourteen days without any benefit; indeed, lost flesh. I continued the same dose of oil, and added the ether, and he began to gain three pounds a-week, and went on at the same ratio as long as he was in the wards. I think I have given it to about thirty patients since our talk in April, mostly in private patients of chronic phthisis, and in one case of great debility, in which I believed the pancreatic secretion was too little. In this case, the young lady had a great horror of all fat things, but took the oil with ether after it fairly well, and gained on it. It seems a plan generally liked by patients, and I am convinced of its utility." Such is the testimony of Dr. Fox, and I need hardly say how gratified I am to have the support of so able an observer. I might quote the testimony of others who have used the ether at my suggestion, were it necessary.

I may here remark, that I have used ether in the treatment of phthisis, not hoping to find a specific, for we have in these days ceased to search after specifics, but simply expecting to discover a rational means of combating one of the most serious symptoms of the malady, and restoring to its healthy state that perverted nutrition which forms so characteristic a feature in the great majority of consumptive cases. The peculiar character of this disorder of the digestive organs has been dwelt on, and the facts are, I think, sufficiently strong to show that in ether we have the best remedy for renewing the power of assimilating fat, whenever that power is diminished or lost.

Such, briefly told, are the results of my inquiry. I submit them to this meeting, in the hope that others may assist me in testing the truth of the facts advanced. Throughout, I have endeavoured to investigate the question with scrupulous care; the drug was selected only after a laborious search, and when the evidence of its physiological action appeared to me conclusive. Starting from physiological facts, I have used the more simple science, physiology, to assist me in adding a new fact to the more complex subject—therapeutics; for it is in this way only that I believe medicine, a compound of sciences, can be advanced. First, must we learn the laws which regulate the normal before we can successfully analyse the laws which regulate the abnormal. In the selection of cases for experiment, I have also endeavoured to eliminate, as far as possible, all sources of fallacy, by selecting patients in the same condition of life, exposed very much to the same influences; and I have refused to accept any statement, as regards improvement, which has not been confirmed by the best test of all, in my opinion, the improvement of general nutrition. The cases, also, were, as far as could be determined, suffering from the same pathological conditions; they were all cases which may be termed chronic phthisis. In short, in all respects I have endeavoured to shut out from my inquiry all the accessory circumstances which might be sources of error; and I trust I have in this way avoided mistaking coincidence for the relation of cause and effect. The difficulties of avoiding all such sources of fallacy in a therapeutical inquiry are immense, and hence the slow progress which this part of medical science makes towards scientific form. If, in the present instance, my inquiry has been conducted with sufficient care to make it appear that I have indicated a new direction of fruitful research, my object will be accomplished, and I must leave it to the experience of the profession to decide on the value of ether in the combating one of the most subtle and certain approaches of our great enemy—death.

THE CRUCIAL TEST IN REGARD TO THE ORIGIN OF PHTHISIS AND TUBERCLE.

By HENRY MAC CORMAC, M.D., Belfast.

THE old alchemists were in the habit of impressing their bocals and their pots with a cross or *crux*—hence crucible—hoping thereby to propitiate the higher powers and realise favourable issues; and hence, also the adjective "crucial", as applied to any test calculated to throw conclusive light on a given subject of inquiry. It is sometimes expedient to enter into special experimental inquiries, in order to realise the crucial test. At other times, we find the crucial test displayed, as it were, obviously before us, and needing only to be heeded, in order to be turned to avail.

I believe, and assume to show, that we have this crucial test at hand in respect of the production of tubercle. For, although tubercle may be expressly produced in the lower animals by forcing them to respire habitually air already respired, we find by the observation of facts—facts of every-day occurrence—facts lying before us—that tubercle is so induced in man and animals by reason of the habits, voluntary or constrained, which lead them habitually to respire air in part, at least, already breathed, instead of air no portion of which has been before respired.

My position is—the position which I take up—that tubercle is alone induced by the respiration of air in part already breathed; for air, all of which has been breathed before, is irrespirable, wholly, and, in fact, productive of immediate death. My averment is, that tubercle, with the diseases which tubercle is known to induce, is alone caused by air already breathed, in such wise that, if air already breathed in part be breathed habitually, tubercle is inevitable; and, secondly, that if no part of the air breathed have been breathed before, tubercle is impossible.

The notion of hereditary or inoculable tubercle I hold to be quite illusory. Tubercle is not inherited, though tubercle may be induced in the fœtus *in utero* by the same causes which induce it in the mother. And, *à fortiori*, if tubercle be not hereditary, none of the diseases which tubercle induces—to wit, phthisis pulmonalis, tabes mesenterica, white swelling, scrofula, and hydrocephalus, so far as hydrocephalus depends on tubercle—are hereditary.

That this must be so is obvious, seeing that the production of tubercle is a chemico-vital process, and not producible otherwise. For what is tubercle? It is no other than the retrograde or effete carbon of degradation, the waste particles which, having discharged the purposes of life, and not being oxidised and converted into carbonic acid, are retained in the organism, and, with whatever foreign matters, water, fat, or cretaceous particles, oftentimes load the pulmonary and other tissues, to their destruction. If the effete carbon be burnt off, there is no tubercle possible. If the effete carbon be not burnt off, tubercle, sooner or later, is unavoidable.

When the natural atmosphere is but once respired, it becomes loaded with about 4 per cent. of carbonic acid, not to speak of water and certain other effete matters, the result of the oxidation of the waste carbon. This, to the extent mentioned, replaces the natural 21 per cent. of oxygen; and, though it might be supposed that air, as thus, contained enough remaining oxygen to supply respiration, it is found in reality to prove quite otherwise. Air loaded with 4 per cent. of carbonic acid, the result of respiration, being breathed, produces almost immediate death. We do not know the exact quantity of carbonic acid which, being habitually present, is adequate to induce tubercle; but I assume that from 1 to 2 per cent. is, in the main, amply sufficient. The presence of carbonic acid, in any degree in excess of the minute quantity supplied by the hand of nature, is hurtful and reprehensible. But the above proportion of carbonic acid—at any rate, the air containing it—being habitually respired, will suffice to occasion tubercle.

We cannot, and we would not if we could, subject human beings to the conditions productive, and, as I allege, alone productive, of tubercle. But human beings do so of their own accord, or constrained by circumstances; and we find, I aver, the results flowing from this use and wont just as conclusive, in respect of the production of tubercle, as if it were the result of an intentional experiment. It has, I conceive, all the force and relevancy of an *instantia crucis*, or designed crucial test or experiment; with this difference, that in the one case the result is undesigned, and in the other designed. One, then, inferentially, must be just as conclusive as the other; unless, indeed, we can venture to affirm that observation, *cæteris paribus*, or other conditions being equal, cannot compare with experiment. And yet, after all, what is experiment but tentative observation? In point of fact, experience and experiment, in essentials, are one and the same.

The habit of sleeping with closed doors and windows loads the sleeping-chamber atmosphere more or less with the products of respiration, and tends to induce tubercle in the inmates. If the day-life be spent in active open-air pursuits, the tendency to tubercular development may be so slow as not appreciably to affect the duration of life. It is quite otherwise, however, when the day and night life combine to occasion the habitual respiration of air more or less prerespired at all times. It is then that the immense preponderance of tubercle takes place, to the production of the ravages which more than decimate the population. Indeed, I have come to the conclusion that tubercular deposits subsist in half the population at the period of disease, if, as Rokitansky affirms, they do not actually subsist, more or less, in all persons at death.

The period in which tubercle ensues—the individual being constrained to breathe his own aërial excretions, or those of other persons and his own combined—varies according to the intensity of the deterioration by night, and the habits, as more or less active, more or less open-air habits, by day. In some cases, tubercles will take long years ere they lead to destructive issues; in others, months will suffice to induce serious deposits, or to render deposits already laid down fatal.

All breathing animals are subject to the law, as here laid down, of tubercle-deposit. There is no immunity, the circumstances being otherwise productive of tubercle. The most powerful and vigorous constitution *per se* will yield no exemption, if prerespired air be only adequately respired. On the other hand, the most weak and debilitated person will not incur tubercle, if only the conditions already named as alone productive of tubercle do not subsist. No animal escapes, no climate lends safety, if air untainted by the products of respiration be not habitually breathed.

The averment that there are men and animals who can breathe, by night or by day, a tainted atmosphere—to wit, an atmosphere tainted by the products of respiration—and yet escape the deposit of tubercle, is perfectly untrue. Equally untrue is it that individuals, men and animals, have escaped tubercle, and yet have breathed habitually air loaded with the products of respiration. It is untrue that the Esquimaux or the Icelanders are exempt from tubercle. That this is so, I was informed in the one case by the late Mr. Simpson, surgeon to the *Plover* exploring ship; in the other, we are instructed by the writings of Schleisner, the Dane, to which I was once referred by a writer in the *Westminster Review* for the very opposite. The inhabitants of Iceland, indeed, otherwise, and occasionally mountain-bred sheep, display pulmonary cysticerci; but cysticerci are not tubercles.

Tubercles are very prevalent in Russia, as well as throughout all Europe. They are found in the warm climates of the East; they subsist all over the Americas; they are wide-spread in the Canadas, in the United States, and among the inhabitants of the West India islands. They are not wanting in Africa. They are found everywhere, that law of Nature being violated which prescribes that the same air, no part of it, shall be respired a second time. For, if pure air be respired habitually, tubercle cannot ensue; but, if the air be impure, in the sense of being loaded with the products of respiration, and as thus respired habitually, tubercle must and does invariably form. It was observed in the diggings in Australia—at Bendigo, I believe, where eighty thousand persons were congregated together, persons who mainly slept and lived in the open air—that there was no consumption; whereas in the Australian towns, even, the malady was not absent. Sailors, soldiers, picked men, but sleeping in places loaded with the products of respiration, become tuberculous to an alarming extent—to an extent, indeed, far in excess of that subsisting amid the ordinary civil population, where tuberculosis is already only too prevalent. The French shepherds, who live all day long in the open air, are nevertheless tuberculous, by reason of sleeping in caravans or waggons, from which every breath of air is excluded sedulously. In New Zealand, the unwitting natives built houses to resemble those of Europeans; but, being constructed without any provision for the admission of air by night, the poor people are ravaged by phthisis accordingly. Nor does there seem any one willing or able to inform them of their error.

The Bedouins, who live all day in the open air, and sleep in tents where ventilation is provided for, are entirely exempt, it is said, from phthisis. The crowning instance, however, of perfect exemption from tubercle, is furnished by the inhabitants of Argyle and the Western Hebrides: here there is no consumption at all, and yet all the alleged influences ordinarily assumed to be productive of the malady are extant. Here, then, is a population extending through a number of islands, some with thousands of inhabitants, and along a line of coast of many miles in length, where there is not any consumption whatever, unless it may be a casual instance brought thither from some other quarter. The rest of Scotland is desolated by consumption, but not the Hebrides. The circumstance is vouched for by common report; by Dr. Martin, the Inspector-General for Scotland, if that be his title; and by Dr. Morgan, an English physician who lived seven years in Raasay, one of the Hebrides, and who published an interesting paper on the subject in the *Medico-Chirurgical and Foreign Review*. These fortunate Hebrideans live, in fact, in houses so constructed as to be permeated by a ceaseless interchange of air—that is to say, of the house-air with the outer air—by reason of having a constant hearth-fire and a hole in the roof. Thus it happens that the air is never, day or night, winter or summer, for a moment stationary; and thus, too, it is that the inhabitants never re-breathe, or possibly can re-breathe, their own pulmonary excretions. The effete carbon is constantly burnt off. There is no tubercle, and no consumption: consequently, the *instantia crucis* which I set out with, I submit, is furnished in its fullest force and integrity.

THERAPEUTICAL MEMORANDA.

[Under this head, we shall publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

THE ADVANTAGE OF ADMINISTERING COLOCYNTH IN THE FORM OF TINCTURE.

By R. W. Crighton, M.D.Edin, Leamington.

The value of colocynth in cases of habitual constipation, and likewise as a revulsant in head-affection, has been long understood; but seems to have been not quite sufficiently appreciated in this country, from the drug having generally been used in the crude state.

The tincture, as employed in Prussia and admitted into the national Pharmacopœia, is a much more agreeable and convenient method of using it; the small dose required—ten to twenty minims—being easily combined in the same mixture with tincture of hyoscyamus, bromide of potassium, or other medicinal agents. Next to croton-oil, it seems to have the greatest effect among purgatives in diminishing hyperæmia within the cranium; and, in cases of threatened or actual cerebral hæmorrhage, its administration with tincture of hyoscyamus and bromide of potassium, I have frequently seen attended with the best results. In habitual constipation, ten, or even five, minims in a little water an hour before breakfast generally suffice to ensure a full evacuation, without much inconvenience, or the dose requiring to be increased.

The introduction of this preparation into the *British Pharmacopœia* would, I am convinced, be useful in extending the agency of the drug to many cases of disease in which its action would be beneficial, but where at present it is but little employed.

OBSTETRIC MEMORANDA.

CONGENITAL DEFICIENCY OF THE HYPOGASTRIC REGION.

By John Dickie, M.D., L.R.C.S.E., Alloa.

I beg to send the following short note of rather a rare congenital malformation in a child delivered by me on the 18th inst. It might be called a case of epispadias complicated with a deficiency of the pubic portion of the abdomen. On the fourth day after birth, when the umbilical cord had separated, I made a minute inspection of the parts with a view to discover whether or not the malformation might be remedied by a surgical operation. The scrotum was largely developed, empty, and from its upper border an apparently normal penis projected, but it was *minus* the membranous portion of the urethra, and had a flattened gland fully exposed; immediately above this in the mesial line, as far up as the umbilicus, was an irregular space completely occupied with a round moveable mass, which had a slight elevation on each side. This was evidently the bladder, showing the openings of the two ureters on its internal surface. Pushing the mass down into the pelvic space, I observed the urine flowing from the bottom of the cavity, but could not detect the exact point of exit. The os pubis was also deficient, and to approximate the two sides of the space considerable stretching was necessary, in fact, it was with great difficulty I could even bring them together. I now had to desist from further examination owing to the struggling of the child and an oozing of blood from the still tender umbilicus. The bowels were acting regularly and well, and otherwise the child appeared to be thriving and likely to live. Considering the non-development of the urethra, the likelihood of a portion of the bladder itself being deficient, and the danger to life attending such operations as that recommended by Mr. Simon, of St. Thomas's Hospital, namely, to direct the flow of urine into the rectum, I came to the conclusion that the case was beyond the reach of curative surgery.

NEW INVENTIONS, &c.,

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

BINAURAL STETHOSCOPES.

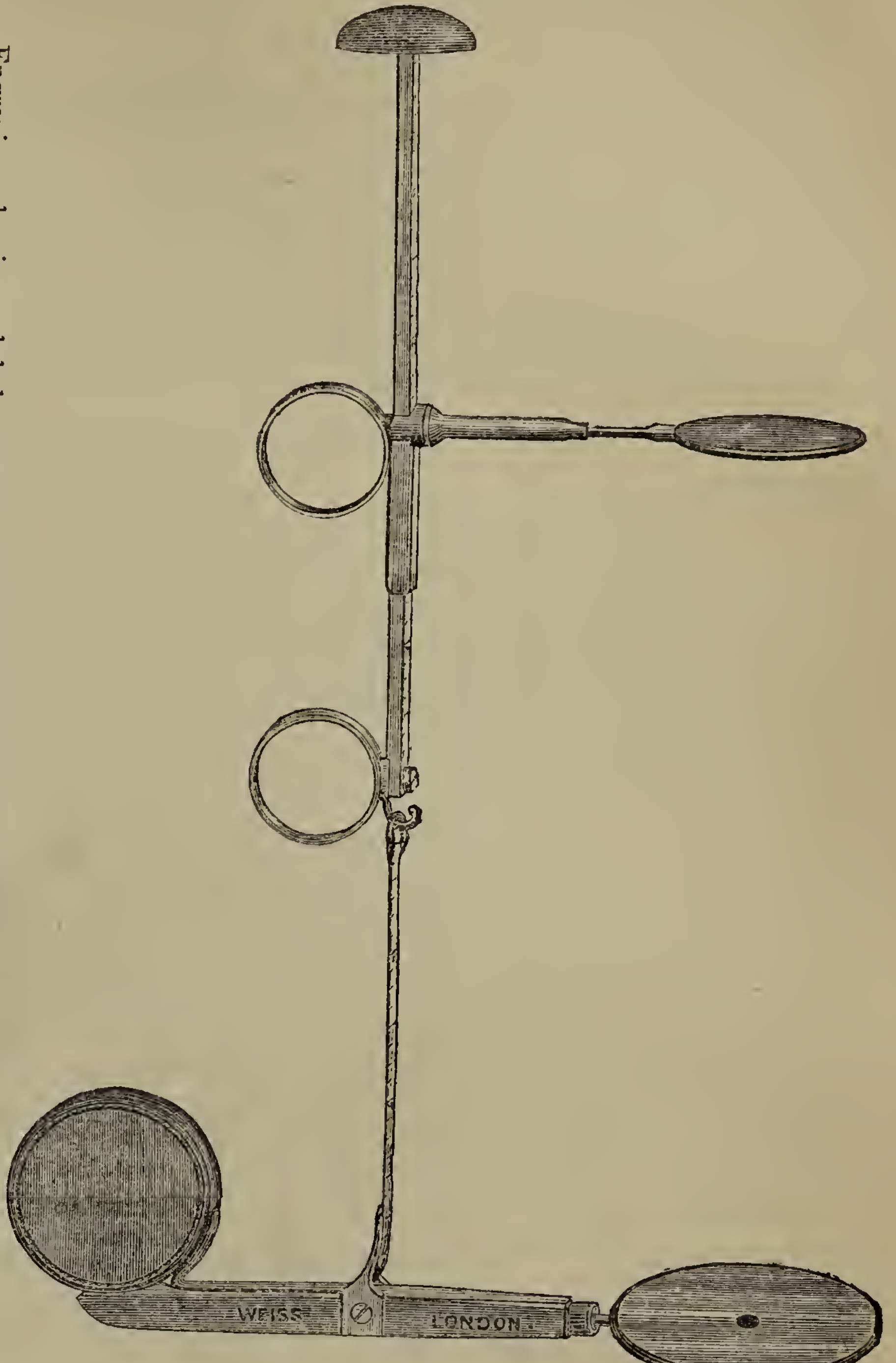
By Andrew Stephen, M.D., Resident Medical Officer, Middlesex Hospital; and W. W. Ely, M.D., Rochester, United States.

Dr. Stephen's is a modification of the ordinary binaural stethoscopes in use, and can be applied either to the ordinary stethoscope of Dr. Camman or to the differential stethoscope of Dr. Scott Allison. It consists simply in having the tubes made of rubber, instead of covered wire. There is thus a smooth channel presented for conducting the sound. It is also cheaper and more portable. Dr. Ely's, figured and described in the *New York Medical Record* of October 1st, is a modification of Dr. Camman's. It has no spring in the centre; the plugs being retained in the ear by two elastic bands which are adjusted round the head. The objective piece is reduced in size; but is furnished with a second smaller objective fixed in its interior. The tubes and ear-pieces are rubber, instead of metal. It is cheap; and probably the most portable binaural stethoscope made.

IMPROVED OPHTHALMOSCOPE.

By Henry Greenway, M.R.C.S., Plymouth.

This instrument (manufactured by Weiss) is designed to furnish the practitioner with means whereby the eye can be examined with nearly the same steadiness and precision as with the large and expensive apparatus of Liebreich, and with nearly the same amount of freedom as attends the use of the ordinary hand-mirror and lens. It is simple in construction, and consists of two parts—a double convex lens, mounted on a stem, which slides on a graduated brass bar, five inches long, at one end of which is a knob which rests against the patient's face, the other end terminating in a hook; the second portion comprises a perforated mirror, supported on a handle, from the centre of which runs a spring measuring-tape. These two parts are united by connecting the end of the tape with the hook before mentioned.



Engraving, showing ophthalmoscope complete. Only a small portion of the tape can be seen, as the mirror and lens are represented nearer together than they should be, in order to economise space in the sketch. The remainder of this self-winding tape is contained in a box at the lower end of the mirror-handle.

To use the instrument for indirect examination of the eye, place the thumb of one hand in a ring, fixed underneath the hook at the near extremity of the graduated bar, and the middle finger in a ring attached to the under surface of the slide, and the forefinger on its upper surface; then lay hold of the mirror-handle with the other hand, in such a manner that the tape may pass between the fore and middle fingers in front, the thumb being placed behind; the patient being seated, in the usual manner, by the side of a lamp, the knob at the extreme end of the brass bar should now be placed against his face, and in such a position that the mounted lens shall be in a line between the spectator's eye and that about to be examined. By withdrawing the mirror-hand from the other, the tape can be drawn out to the required extent (about eighteen inches), and be fixed by merely pressing the forefinger on it. The lens focus (from one to three inches) will be obtained by moving the slide to and fro on the graduated bar. By gently pressing the bar towards the patient's face with the thumb of the lens-hand, and by keeping the tape slightly on the stretch with the mirror-hand, the whole instrument will have the steadiness of a solid construction. As a further aid, the surgeon may sit the reverse way on a chair, and make its back serve as a rest for his elbow. Should the back be too high, a thick book or other substance should first be placed on the seat of the chair.

For the direct method of examining the eye, the presence of the tape will not prevent the mirror being used in the ordinary manner.

A small black card-board screen, to be hung at the side of the patient's head, is supplied with the instrument. This will sometimes be found useful in private practice, where a screened lamp is not at hand.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 28TH, 1868.

THE ROYAL SANITARY COMMISSION.

One of the important objects to which the British Medical Association has devoted itself during the last two years, is attained by the Royal Warrant issued in the *Gazette* this week, appointing a Royal Commission to inquire into the operation of sanitary laws and of the system of registration. Our associates will not need to be reminded of the exertions towards this end especially of Dr. Rumsey and Dr. A. P. Stewart; and of the resolution at the Dublin meeting, by which, on the motion of Mr. George Hastings, it was agreed that we should invite the Social Science Association to combine with us in joint representations to the Government. The issue of that joint action was the appointment of an united Committee of a thoroughly representative character, in which, as before, Dr. Acland, Dr. Rumsey, Dr. Stewart, and Mr. Charles Hastings, took an active part. The memorandum, prepared and approved by the Committee, was laid before Ministers near the close of the late Parliamentary session, by a deputation in which most of our leading sanitarians took part, and it will be found printed in the Journal of May 30th, where a full account of the proceedings of the deputation is also put upon record.

Mr. Hardy has now accordingly advised the Queen to appoint Lord Northbrook; the Earl of Romney; Lord Elcho; the Right Hon. C. B. Adderley; the Right Hon. H. A. Bruce; Sir T. Watson, Bart., M.D.; Sir C. Lanyon, Knt.; Lieut.-Col. C. B. Ewart, R.E.; J. R. M'Lean, Esq., C.E.; G. Clive, Esq.; F. S. Powell, Esq.; A. S. Ayrton, Esq.; R. S. Aytoun, Esq.; B. Shaw, Esq.; J. Lambert, Esq.; J. Paget, Esq., F.R.C.S.; H. W. Rumsey, Esq., M.D.; H. W. Acland, Esq., M.D.; R. Christison, Esq., M.D.; W. Stokes, Esq., M.D.; and the Rev. S. Haughton, M.D.; to be Her Majesty's Commissioners to inquire into and report on the operation of the sanitary laws for towns, villages, and rural districts in Great Britain and Ireland, so far as these laws apply to sewerage, drainage, water-supply, removal of refuse, prevention of over-crowding, and other conditions conducive to public health; also to report upon the operation of the laws for preventing the introduction and spreading of contagious and infectious diseases and of epidemics injurious to the public health; upon the local administration of the aforesaid sanitary laws; and upon the operation of that part of the registration system which relates to certificates of causes of death.

Public results such as these are among the most important and beneficial acts of a great Association, which is able to command for its discussions many able and disinterested minds, to decide calmly; and, when it speaks, to use the voice of authority, and to speak in the name of many. The Commission includes the names of many of the most eminent members of the Association who composed the deputation, including the President of the Association, who throughout has taken a deep interest in the subject, and has brought all his powers of mind and social influence to bear upon the successful shaping of the question. We must confess, however, to a distinct feeling of disappointment, which it would be wrong to conceal, at not finding in this Commission the name of a man to whom, with Dr. Rumsey, is more than any other due the progress which the question has made, and the successful result which has followed upon the energetic labours in which he bore a very large part. Dr. A. P. Stewart, by his writing, by his labour in committees, and by his incessant devotion of time, trouble, and influence, has done at least as much, if not more than any man on the Commission, to put sanitary legislation into a position which compelled the issue of a Royal Commission. His labours and his information would have been peculiarly valuable as a commissioner; and, although the post is one of great toil and no profit, yet we feel no doubt that he would have been willing to add this to his past sacrifices to the progress of sanitary legislation; and we regret that his services have not been secured for the Government.

HEALTH OF THE NAVY.

No. II.

Small-pox caused 239 admissions, equal to 4.9 per 1000 of mean strength; but only eight deaths, equal to .1 per 1000 of strength. One hundred and sixty-five of the cases and six of the deaths occurred on board the *Octavia*, on the East Indian Station. The fact of such an immense proportion of cases and deaths from this disease having occurred on one ship strongly indicates the necessity of especial care being directed to the state of vaccination of all the officers and men of the navy. It would appear, however, that this subject has not hitherto, in the navy, met with the attention which its importance demands. It is observed in the Report before us, that, if revaccination "be necessary with the civil community, how much more important it must be to such a service as the Royal Navy will be very evident; and hence the propriety of considering whether every man and boy should not be vaccinated on his first entry into the service, however well marked may be his primary vaccination-cicatrices." This is a regulation which has for the last ten years been enforced in the army; and, if not already in existence in the navy, we certainly think that no further delay should occur in issuing the necessary orders.

The outbreak of small-pox on board the *Octavia* may, from the suddenness of its nature, be fairly called an explosion. The disease was prevalent in Bombay, where the ship was stationed. A Krooman, suffering from measles, was sent to the General Hospital on shore on February 7th, and was discharged to the ship cured on March 1st. On the 5th, he presented the symptoms of small-pox in its confluent form; the ship being then three days at sea, on her way to Muscat. On the 14th, he died, while the ship was at anchor at the entrance of the Persian Gulf. On March 17th, a petty officer was seized with symptoms of the disease. On the 18th, five more cases occurred; on the 19th, eighteen more; and from that time up to the morning of the 22nd (when the ship arrived again at Bombay), the epidemic spread at the rate of thirty cases *per diem*. During the 23rd and 24th, all the patients, amounting to 126, were placed in buildings on Butcher's Island, about six miles north-east from Bombay, formerly used as barracks. The sixty-five most serious cases were placed in one building; and the other sixty-one, presenting any incipient symptoms, were accommodated in another building. On the 25th, twenty more cases, presenting premonitory symptoms, were landed; on the 26th, thirteen; on the 27th, three; after which, no more cases occurred. Of the 163 cases landed in the hospital buildings on shore, twenty-three assumed the confluent form; fifty-seven the distinct; and the remaining eighty-three did not go beyond the stage of primary fever, which, however, was well marked and characteristic. So that, between the 5th and 27th of March, 165 cases occurred, being in the ratio of 27 per cent. out of a total strength on board of officers and men of 610. "Of these, 589 were protected by vaccination; and twenty-one, fourteen of whom were Kroomen shipped at Sierra Leone when the *Oc-*

tavia was on her way out from England in October of last year, were 'unprotected'. Of those 'protected', 437 escaped altogether; while 147, or 24.9 per cent., were only attacked with symptoms of primary fever, or with the disease in a distinct and comparatively mild form, all of whom recovered; and only five, or .8 per cent., with the confluent form, and those also recovered. While, of the 'unprotected', all were attacked; eighteen, or 85.7 per cent., with the disease in its confluent form, of whom six died; and three, or 14.2 per cent., with severe attacks of the distinct form, all of whom, however, recovered. It was, perhaps, a further illustration of the protective influence of vaccination, that not one of some forty officers and men, who were revaccinated in the early part of April, proved susceptible to the operation, or, to use the ordinary expression, 'took'." In all human probability, if the fourteen Kroomen, on being shipped at Sierra Leone, had been vaccinated as a precautionary measure, this very serious epidemic might not have occurred; and, keeping in mind the well-known greater proclivity of the dark races to small-pox, we would strongly urge upon the Admiralty the absolute necessity of ordering that, in all instances of men of colour being employed on board any of Her Majesty's vessels, and particularly those on coast-stations with which communication is unavoidable, they be carefully vaccinated. It is not necessary to detail the precautionary measures or treatment which were adopted in combating so formidable an epidemic. They were extremely judicious, and reflect the greatest credit on all concerned.

The epidemic of Fever on board the *Octavia* occurred in July, August, and September, while the ship was at Trincomalee and Madras. Its origin is obscure. The other ships at the same station were remarkably healthy, being almost entirely free from fever. There was no serious amount of disease among either the European or native community of Trincomalee. The season during which the epidemic occurred is generally accounted by the residents the healthiest portion of the year, the country round Trincomalee being at that time more free from swamps and decomposing vegetation than at any other; so that, as the surgeon remarks, "to attribute the sickness to any terrestrial physical conditions would seem to be an assumption in opposition to all the facts directly bearing on the case." On the other hand, the strictest scrutiny failed to detect any local insanitary conditions peculiar to the ship, which is believed to have been as well off as regards all sanitary requirements and precautions as any of the other ships on the same station, in which no such sickness prevailed. Mr. Shaw is, therefore, forced to the conclusion that the epidemic owed its origin to the operation of a certain though very small amount of malaria, inseparable from a paludal and littoral locality like Trincomalee, even at the healthiest season, on the frames of a large number of, for the most part, unacclimatised young men and boys congregated in the too limited space of a ship's decks, and previously more or less debilitated by fatigue, exposure to the sun, errors in diet, and previous illness. Sixty-five per cent. of the persons attacked were under twenty-five years of age; but the proportion borne by men of that age, in the total strength, to others more advanced in life, not being given, we cannot thence deduce any strong proof of the influence of youth in predisposing to the disease. It is also stated that the officers suffered in even a greater ratio than the men. In the cases of those who caught the disease while attending upon those previously attacked, he considers infection to have been the exciting cause. The atmosphere of the ship became so deteriorated, that it was found necessary to discontinue keeping any patients in the lower deck sick-bay, as, in cases even of simple ulcer, sloughing action frequently supervened, or the patients were seized by the prevailing fever after having been kept there a few days. The symptoms generally were those of malarious remittent fever. In those cases which assumed the typhoid character, the aggravation is attributed to constitutional weakness, or to delay in applying for advice, or to returning too soon to duty, or to the discomfort and loss of rest induced by the ceaseless rolling and creaking of the ship while anchored off Madras (where also, the ship being laid head to wind, instead of "broadside on," as at Trincomalee, the ventilation became defective), or to two or more of these circumstances combined. In some cases, the subsequent debility was very protracted, and quite out of proportion to the intensity of the febrile phenomena; while in two cases the disease was followed by obstinate neuralgia of the head, which in one lasted for more than ten months, and in the other caused the patient to be invalided—facts which strongly indicate the malarious element in the etiology of the disease. It does not appear that the characteristic rose-coloured eruption of "dothinenteritis" was in any case detected. Only one *post mortem* examination was made; and that was in the case of a man who died in the Madras Hospital, in whom Mr. Shaw was informed that extensive ulceration of the bowels and inflammation of Peyer's patches were found. In one of the fatal cases, the patient being a young officer, the immediate cause of death was hæmorrhage from the bowels, evidently consequent on ulceration having laid open some large blood-vessels.

SCHOOLS OF NATURAL SCIENCE.

Who will do for Natural Science in this country, what is about to be done, in part, for Physical Science? It must be confessed, that the teaching of natural science is in an unsatisfactory position; and this absolutely from the want of state endowment, or of the munificence of individuals, which, in other departments of education, sometimes seconds, or even supersedes, the interference of the state. If we look round the metropolis of this country, we cannot find one great school of natural science. We cannot find even one adequately fitted laboratory for the study of physiological chemistry, with a just wealth of appliances and a professor devoted to the study and the teaching. We have not, in the whole country, one adequately furnished physiological laboratory of instruction, with its appropriate head. Energy, devotedness, and zeal, have urged teachers at one or two of our medical schools to endeavour to fill this great want on a small scale, by the sacrifice of a portion of the time which they can ill-spare from practice and from hospital labours. But there is not, in the whole country, an endowed professorship of physiology, of botany, of medical chemistry, of histology, of physiological chemistry; there is not a scholarship or reward to induce or enable earnest young men to follow such all-important studies; there is not a laboratory in which they can freely pursue the researches which the progress of science now urgently demands. This reflection is the more serious because of the great efforts which continental nations are making at this moment to encourage, by liberal aid from the state, these studies, which constitute the glory of an intellectual people, and in which lie the solution of all the great questions of life and health, and the problems of existence, which it is the mission of our age to unriddle. Jealous of the splendid progress which Germany has made in these sciences during the last half-century, the French Government has in active preparation seventeen public laboratories of the first order, with endowed professorships and free studentships. Physics, chemistry, natural history, applied to the living being—to the study of the structures and of the phenomena of life, in health and disease—constitute medicine; and the Minister of Public Instruction recognises, in the report which he has just presented to the Emperor, that the whole population is interested, by its health, its power, and its riches, in the progress of this application of the sciences. Thirteen laboratories, properly fitted and supervised, are about to be opened by the Administration of the Public Relief at the various hospitals; and in these the students will pursue, with great practical advantages, microscopical and chemico-biological researches in relation to disease. What have we to compare with this facility of instruction? We urge this subject now in few words, but with earnest intention. It is one peculiarly deserving of the serious attention of our profession and of the country. It is one to which the British Medical Association may at this moment direct itself with great advantage, and to which it will shortly be opportune to claim the earnest and practical consideration of the Government. Would that we might hope that a second Whitworth would arise to help us in the field of instruction in natural and biological science, now so little favoured in this country.

The news has been received in town of the accouchement of the Princess of Hesse, who has given birth to a boy.

The Queen of Holland, who has been staying in town, has visited carefully the Children's Hospital and other London charities.

Sir William Jenner, Bart., M.D., will take the chair at the second annual meeting of the subscribers and friends of the Hospital for Sick Children, Queen's Road, Chelsea.

The South Staffordshire General Hospital, Wolverhampton, has been presented with £105 by Mr. F. Monckton, of Shelton, Penkridge.

MORTALITY OF THE FOOT-GUARDS.

The large proportion of disease amongst the Foot-Guards, which the annual Army Medical Report once more demonstrates, has very properly attracted notice. In the comments which have been made, however, one considerable source of the evil is missed: this is the excessive and unceasing round of sentry duty to which they are subjected. Before the Crimea, Chichester was the Guards' station, where there was no garrison duty; so that, in turn, each battalion of the brigade found a resting place free from guards and night-duty, and the weakly men got pulled together. The authorities, in their wisdom, after the Crimea, sent a battalion to Dublin, so that the entire service of a guardsman became one of garrison duty. This continued till the *Trent* business, when a brigade was sent to Canada; and on their return, on the representation of the medical officer, Shorncliffe was chosen to act as a safety-valve in the same way as Chichester. This continued till a battalion of guards was again sent to Dublin, on the origin of the Fenian disturbances, since when they are again reduced to a never-ceasing tour of garrison duty, for which improvement of barracks will be no compensation. On on average, each man is lucky if he is not on guard every fourth or fifth night, for during the summer men are absent at rifle practice, and during the winter on furlough, not at either period sufficiently long to be of health-service to the individual, but always affecting the number present; and, when the battalion is sent to Aldershot, it tells against those left in London, who have to supply the deficiency.

LONDON COWS AND LONDON MILK.

If Londoners are afflicted with bad milk, which is a serious fraud upon adults, but a still more cruel injury to thousands of hand-fed children, it is, according to the official statement of one of their own officers, the fault of the vestries and of no one else. The medical officer of Marylebone reports thus to his vestry.

> "I have much satisfaction in stating that the cows at present kept in the parish, and which amount to upwards of 600, are in a most healthy condition. With but very few exceptions, the animals looked very plump, many of them fat, and no single instance of disease amongst them was found to exist. The food given to them appeared to be abundant in quantity, nutritious in quality; and many samples of milk which I inspected were very rich in all nutritive constituents. If milk-dealers would only supply this important article of food in the same condition as it comes from the cow, I have no hesitation in saying that London milk—by which I mean milk obtained from cows kept in London sheds—would bear comparison in every respect with milk obtained from the country. How far the keeping of cows in London sheds is desirable or proper in a sanitary point of view, is another question."

Now the vestries are empowered by Act of Parliament to require examinations of the milk as *sold*, and not as it comes from the cow; and by giving proper instructions to Dr. Whitmore they might, at a very trifling expense, have laid before them from time to time reports on the milk sold, such as those which we recently had made for public information at our own cost. The Dublin authorities take this trouble; and the result of Dr. Cameron's authorised examinations has been that, after a considerable number of milk-dealers had been summoned and fined, they have found it more to their interest to sell pure milk at a fair price than to run the risk of expence and penalty. The Marylebone vestry includes many men of intelligence and independence, who will confer a public boon of no small magnitude by acting in this matter.

THE EFFECTS OF ROWING ON THE CIRCULATION.

During the summer of the present year, Dr. Fraser, F.R.S.E., of the University of Edinburgh, undertook a number of accurate observations on the effects of rowing on the circulation, upon the crew of one of the University boats. The sphygmograph was used automatically, to record the pulse-movements; and, apart from any intrinsic importance, his observations may prove of some interest in relation to recent discussions on the probably injurious effects of rowing exercise. The observations were prolonged throughout the greater part of the period of training. The changes that were produced were of an extremely uniform character, not only on the different occasions, but also with the different members of the crew. He presents, in Humphry's *Journal of Physiology*, woodcuts of the pulse-tracings of the stroke-oar. The tracings obtained all show that an extremely large quantity of blood is being circulated with great rapidity. It is obvious that, in the great majority of functional and organic diseases of the vascular system, such a position could not possibly be maintained. The author concludes that the subjects of these diseases are, therefore, completely incapacitated for violent rowing exercise, and cannot be in a position to be injured by it. It is possible that the presence of incipient forms of disease of the vascular system might altogether prevent such exercise from being undertaken; but he believes that all such diseases may be detected by the use of the sphygmograph in time to prevent further mischief; the examination being made immediately before the boat is entered, and a few minutes after a moderate pull has been indulged in.

FINGERS AND EYES.

We wish to point out the great national interest attaching just now to the solution of the question, In what type shall we print for the blind? and to claim public attention to the subject. A great fund is being raised for printing the Bible for the blind; and there is good ground for claiming that the selection of character shall be further considered before this sum is expended. There are eight kinds now in use; and it seems not unlikely that the worst will be selected, unless the subject be ventilated. Why not print for the blind the same letters, in raised characters, which we use ourselves? There would, at first sight, appear to be advantages in this method; for a person who has been accustomed to read previously to becoming blind has then no new alphabet to learn, and a blind child or adult learning to read by the Roman character can be assisted by any seeing person. But it has, unfortunately, been found that these letters, which are so clear and distinct to the eye, are confused to the finger; and many are so similar, that a very sensitive and skilled touch is needed to distinguish them. In America, which country alone furnishes available statistics, it has been found that, after years of practice, only a small proportion (thirty-four per cent.) of young people, and very few adults, can read fluently by this system. To obviate the defects, apparently inherent in the Roman letter, various forms of character, differing more or less from it, have been devised. These have been found, from experience, to convey to the finger, even of a rough, horny-handed adult, an impression so clear as to allow of the speedy acquisition of the art of reading. In some of these systems, one character corresponds to each letter of the alphabet; and, in others, a character serves, as in shorthand, to indicate a syllable, or even a whole word; and, in one, the phonetic system has been adopted. Intelligent people, who have mastered one of the last named systems, will read aloud rapidly, and without the least hesitation, and complain of the tedium of spelling out any of the unabbreviated systems; while, on the other hand, uneducated persons, and those of duller intellect, prefer the manual exercise of spelling out the words letter by letter, to the mental effort of comprehending the meaning of an abbreviated or phonetic character. The advocates of each system very naturally fancy their own to be superior to every other. Books have been printed in each character; and those who are interested in the success of one are very unwilling to acknowledge the claims of another. Thus, it becomes extremely difficult impartially to decide the important question, What character is best suited for universal adoption? An influential Society has been recently established at Worcester, with the view of raising £20,000 for printing the Bible and other books in the ordinary Roman letter, to be sold to the blind at a very low price, under the assumption that this is the best system. Many benevolent persons have thrown themselves vigorously into this work, which would have been a real benefit to the blind, if the Roman letter had been suited for general adoption. It has, however, been abandoned in France and Belgium; has failed in America; and the blind themselves, who are, of course, the best judges, agree that the Roman letter is more difficult of recognition than any of the arbitrary characters, and those who have learned it discontinue its use, and learn an arbitrary character as soon as they leave the asylum where they have been taught, and are free to choose for themselves. (This remark specially applies to London, where there are great facilities for learning any of the systems in use.) It has been proposed that a conference should be held, consisting of representatives from all the blind asylums, to decide once for all the best form of type; but the advocates of each are unable to free themselves from their own special bias, and the effort to take a comprehensive view of the question has hitherto failed. It being impossible to organise a satisfactory Council of Representatives from the different educational institutions, as each member will not look beyond the interests of his own institution, it has occurred to Dr. Armitage (who, it is well known, has the misfortune to be personally interested in the subject, and whose calm impartial judgment renders him specially fit for the work) to suggest what may be termed the Representation of the Profession in the General Medical Council; in other words, to organise an influential Council of blind gentlemen, to collect facts and opinions as to the most available system for general use. If the decision arrived at—and surely it must be possible to form a sound, temperate, and unbiassed decision—should be in favour of the Roman system, then, by all means, let the Worcester scheme receive every encouragement; but, if it appear that any other system, modified or unmodified, is better, let that be universally adopted in Great Britain. This is really a matter of imperial moment, and one which must, if not before, be decided by the new Education Department of the country; for nothing short of state intervention will, it is to be feared, permanently settle this much vexed question. We conclude, then, that it is not easy to tell our blind patients what is the best type; for the quick and intelligent, Lucas's or Frere's certainly are appropriate; but for those who prefer a self-evident type, and are not anxious to read rapidly, Moon's unabbreviated system may be recommended. A combination of these with the Roman, may perhaps eventually be found better than any existing system; but it seems abundantly evident that the Roman, as it now stands, is thoroughly unsuited to the wants of the blind.

QUARANTINE AND CHOLERA.

Dr. Gavin Milroy writes to us on this important subject, to which we have recently directed attention, and on which he speaks with eminent authority. He says:

"Since you did me the favour of inserting, in your impression of the 31st ult., my letter to Lord Stanley on the late imposal of quarantine by Spain upon arrivals from England, in consequence of the alleged existence of Asiatic cholera in this country, the Registrar-General's third Quarterly Return has been issued, and in it I find a notice of the same subject. Dr. Farr remarks, in reference to the prevalence of 'summer cholera' in London (several cases of which had been rapidly fatal, and were scarcely, if at all, distinguishable from cases of the epidemic in 1866), that 'the late Spanish Government chose, under this pretext, to subject vessels from the United Kingdom to quarantine on and after July 22nd; and it does not appear that the restrictions were taken off before the Spanish Government itself had been removed.' In a footnote, he quotes from the *London Gazette* of September 11th the following extract: 'A letter inserted on September 1st in the *Madrid Gazette* contained this passage: 'Vessels coming from the ports of England will for the present be subjected to three days' quarantine of observation, *provided that their bills of health and the occurrences on board during the voyage do not excite suspicion.*'' The meaning of the clause which I have underlined is, that, in the event of there being anything to excite suspicion, the vessels shall then have to proceed to a foul lazaret, and there perform rigorous quarantine for at least ten days. And, indeed, for some time before the issuing of the above official notice in the *Madrid Gazette*, this rigorous restriction had been imposed upon British shipping at some of the ports in Spain and in her colonies. At Cadiz, the ports of London and Hartlepool were declared to be 'foul' in the first week of August; and, a fortnight or so later, the Malaga Board of Health, according to the *Gibraltar Chronicle*, decided to treat all arrivals from England as 'infected'; such vessels to be sent to perform a quarantine of ten days in a foul lazaret. In obedience to instructions from Madrid of August 15th, all vessels from the United Kingdom arriving at Teneriffe or any other of the ports of the Canary Islands were required to proceed to either Vigo or Mahon, and there perform a strict quarantine, before pratique could be given. But it was not Spain only which acted in this absurd and injurious manner in respect of arrivals from this country. The Lisbon Board of Health is seldom behind any official board in the extravagance of their quarantine precautions directed against foreign countries. It was ordered, on August 27th, that 'all vessels from British ports, with the exception of Ireland and Scotland, shall be subjected to three days' quarantine, and inspected, to see if any cholera cases have occurred on board.' (See *Times* of Aug. 11th and 29th, and Sept. 8th and 18th.) This order was speedily revoked, but not before considerable inconvenience and a most unnecessary interruption of unrestricted intercourse had been inflicted on our countrymen. The evils of the Spanish quarantine system are not a little aggravated by the circumstance that no sooner does Spain direct restrictions against any country, than our own colony of Gibraltar is obliged, in self-defence, to impose the same; for otherwise all communication between the Rock and the Spanish mainland would be subjected to an embargo of greater or less severity. And so it was recently. Such is a specimen of what is continually being enacted, under the pretext of protecting the public health against the introduction of dangerous diseases from abroad. Unfortunately, there has been of late a manifest tendency on the part of our own quarantine authorities to sanction such proceedings, by the retrograde course they have pursued, if not in respect of cholera, at least in respect of another foreign pestilence, yellow fever. The extravagant measures which were enforced, during the last two winters, at Southampton, against arrivals from the West Indies, could not fail to have encouraged Spanish and Portuguese Boards of Health in the maintenance of views and practices advantageous only to quarantine officials by the fees arising from the detention of shipping. It is surely high time that such encouragement on the part of this country should cease, as it is notorious that the late conduct of our authorities was at variance with the all but unanimous opinion of the profession, and has also been discountenanced in the Reports of the Medical Officer of the Privy Council."

VERATRUM VIRIDE AS A THERAPEUTIC AGENT.

M. Oulmont is already known for elaborate researches on the physiological action of digitalis, of which we have previously made known the first results. He has continued his labours; and, in a recent memoir before the Academy of Medicine, discusses its therapeutical value. He employs it in the resinous extract, giving two grains every hour till vomiting arises—usually after the third, sometimes only after the seventh or eighth dose. This interval is selected because the action is fugitive. He gives it in acute inflammatory and febrile affections, pneumonia, articular rheumatism, pleurisy, and even typhoid fever. In fever, it lowers the pulse and temperature. The pulse falls twenty to fifty at the end of three or four hours; the temperature falls only one to two degrees in the space of three or four days. To produce this result, it must be pushed to the production of vomiting, in doses as above; and must be repeated for two or three days. It is a rational antiphlogistic means of combating pneumonia, acute articular rheumatism, and pleurisy. He believes that it reduces the mean duration of pneumoniaa to six days and three-quarters, and diminishes its mortality in a like proportion. It has, however, only an indirect action on the local changes. Its effect, as a rule, in rheumatism and pleurisy, is less marked. On the whole, this is not a very favourable account of this drug. It is counterindicated in typhoid fever.

Death from Hydrophobia.—An innkeeper, named Greenwood, of Halifax, was bitten on the lip by a dog about two months ago, and died from hydrophobia on Saturday last. This is the third death from hydrophobia in Halifax within a few weeks.

SCOTLAND.

A MOVEMENT is on foot to obtain a new water-supply for the town of Brechin. The quantity required is 100,000 gallons per day.

THE NEW MEDICAL HOSPITAL, EDINBURGH.

THE sum subscribed towards the new Medical Hospital, Edinburgh, up to this time, amounts to nearly £68,000. The estimated cost is £100,000.

LORD RECTORSHIP OF THE GLASGOW UNIVERSITY.

THE Duke of Montrose, Chancellor of the University, has given his casting vote in favour of Lord Stanley.

UNIVERSITY OF EDINBURGH.

AT a meeting of the University Court held on the 13th inst., the following assistants were nominated and approved:—Chemistry, Dr. A. Delzell and Mr. Dewar; Anatomy, Dr. John Chiene; Medical Jurisprudence, Dr. Arthur Gamgee.

CHANCELLORSHIP OF THE UNIVERSITY OF EDINBURGH.

THE result of the warm contest for the Chancellorship of the University, which has been carried on for some time past, was made known on Saturday last. The number of votes polled for the Lord Justice General, Mr. Inglis, was 1,780; and for the Right Hon. W. E. Gladstone, 1,570; the former having thus a majority of 210.

LORD RECTORSHIP OF ST. ANDREW'S UNIVERSITY.

OF the following gentlemen, who have been nominated for the Rectorship of St. Andrew's University, vacant by the termination of Mr. John S. Mill's term of office, the first two are likely to be the favourites:—Mr. Disraeli, Mr. Ruskin, Sir R. Murchison, Sir John Herschel, Mr. Browning, and Mr. Charles Dickens.

EDINBURGH BOTANICAL SOCIETY.

THE opening meeting of the Botanical Society was held on Thursday, Nov. 12th, at 5, St. Andrew's Square, when the President, Mr. Charles Jenner delivered an address on Botany as a branch of high mental culture. Papers and communications were afterwards read by Professor Balfour, Professor Dickson of Glasgow, and Professor Dickie of Aberdeen.

ST. ANDREW'S MEDICAL GRADUATES' ASSOCIATION.

THE second anniversary session of this Association will be held under circumstances which are not a little noteworthy. In the first place, since the Graduates of St. Andrew's last met they have, by their own united energy, obtained for themselves a voice in the council of their University and a vote for its member in Parliament. And in the second place, there will be present at the dinner in his double capacity of guest and member, Mr. Lush, the newly elected member of Parliament for Salisbury. We are sure that his brother graduates will muster in great numbers to welcome the first Doctor of Medicine of St. Andrew's, as we believe, who has sat in the House of Commons.

UNIVERSITIES OF GLASGOW AND ABERDEEN.

THE nomination of candidates to represent the Universities of Glasgow and Aberdeen in Parliament took place in the Fore Hall of Glasgow University on Wednesday week. The proceedings were purely formal. Dr. Barclay, Principal of Glasgow University, took the chair. At twelve o'clock, the Principal opened the proceedings by reading the writ commanding the two Universities to return a "discreet and sufficient burgess to represent them in Parliament." Mr. J. G. Campbell nominated the Lord Advocate, Mr. E. S. Gordon. In accordance with the usage followed on other occasions in Universities enjoying the privilege of parliamentary representation, he said he should confine himself to the simple duty of making this nomination. Dr. J. A. Fleming seconded the nomination. Mr. Walter Buchanan said he would follow this example. He should simply nominate Mr. James Moncreiff, Dean of the Faculty of Advocates. Dr. Brown, Aberdeen, seconded the nomination. A show of hands was taken; and, the Principal having declared, amid cheers, that it was in favour of Mr. Moncreiff, Mr. Campbell demanded a poll on behalf of the Lord Advocate. The Principal announced that the polling would commence in the two Universities on Wednesday, the 2nd of December next; and that it would remain open for five days.

IRELAND.

STEEVENS'S HOSPITAL, Dublin, has been presented with £300 by the Corporation of Dublin.

DR. BRADY, M.P.

OUR sole medical representative from Ireland would appear to be as popular among his constituents as among the profession, for he has been favoured with that rather rare compliment, an unopposed return.

SUPERANNUATION OF POOR-LAW OFFICERS.

IF any member of the new Parliament has sufficient interest in the cause of the Irish dispensary physicians to bring in a Bill for the superannuation of these officers, the measure is sure to become law, for a large number of members are already pledged to support such a measure.

POPULAR EDUCATION IN HYGIENE.

THE Commissioners of National Education have ordered several copies of Dr. Cameron's *Lectures on Health*, delivered before the Royal College of Surgeons. We sincerely trust they will decide on supplying them to the national schools throughout the whole country.

APOTHECARIES' HALL OF IRELAND.

THE subject of the next examination for the annual prize to be competed for by apothecaries' apprentices, will be—"The Vegetables included in the *British Pharmacopœia*: their Natural History, Botany, Pharmaceutical Preparations, Chemical Tests, and Medicinal Doses."

DR. HILL, POOR-LAW INSPECTOR.

THE dispensary officers of those districts in which Dr. Hill acted for many years as Medical Inspector, but in which, owing to departmental changes, he ceases to act, are about to present him with a testimonial. Dr. Jennings of Dublin and Dr. Davys of Swords are receiving subscriptions.

NEIGHBOURS PATIENT ABOUT A NUISANCE.

THE Dublin Corporation last week took proceedings against the Phœnix Brewery Company for smoke-nuisance. The Medical Officer of Health, the City Analyst, and an engineer, gave evidence as to the existence of the nuisance and its deleterious effects; but the magistrate dismissed the summons, as three neighbours swore they had not felt any injury to health from it.

THE MEATH HOSPITAL.

THE vacancy created by the lamented death of Dr. Stronge was filled on Saturday by the election of Mr. R. Persse White, Surgeon to Jervis Street Hospital. Mr. White was originally apprenticed to one of the surgeons of the Meath Hospital, and obtained, by examination, the fellowship of the Royal College of Surgeons in 1857. Dr. Thomas Walsh and Dr. E. W. Collins are candidates for the vacancy in Jervis Street Hospital.

STUDENTS' SOCIETIES.

THE opening meeting of the Dublin University Medico-Chirurgical Society is fixed for the 26th inst.; the Regius Professor of Surgery (Mr. Adams) taking the chair; and Mr. Battersley, the Auditor, will deliver the address. The Junior Surgical Society, which has been established for eight years, will meet in the College of Surgeons next week; and there is an effort being made in one of the private schools to found a similar association.

THE GENERAL MEDICAL COUNCIL.

A MEETING of the Executive Committee of the Medical Council has been summoned for Wednesday, December 2nd. In all probability, on account of the accumulation of business, the Committee will also meet the following day.

THE METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE monthly Meeting of this Association was held on Saturday evening, the 21st instant; Dr. LIDDLE in the chair.

The CHAIRMAN alluded, in feeling terms, to the sudden death of the late Dr. Hillier, who, he said, had had a principal hand in the organisation of this Association and was its first Secretary. He likewise dwelt upon the kindness, urbanity, and yet firmness of Dr. Hillier's character, and thought it the duty of the Association to express their sympathy and condolence with the deceased gentleman's family.—Dr. BALLARD seconded the proposition, which met with universal approval on the part of the members.

Dr. BALLARD, Medical Officer of Health for Islington, then read a Paper entitled "An Attempt to Explain the Epidemic Waves of Scarlatina." Apologising for the rough form in which the paper was presented, on account of its hurried preparation to fill a gap produced by Dr. Odling's incapacity to read his promised communication, Dr. Ballard proceeded to say that he had kept a record of scarlatina as it had occurred in his district for eleven years, and that it amounted to 3,412 cases. The general result was, that the least prevalence of the disease was observed in March, and that the greatest prevalence was in the months of September, October, and November, at which season there was every year an attempt, as it were, at an epidemic extension of the disease. In epidemic years, such as 1859, 1863, or 1868, the epidemic dated its origin from the preceding autumn. He inferred from his records, and his inference was illustrated by diagrams, that in any year scarlatina may be expected to *spread*, when the mean temperature having risen above 60 deg. in the course of the summer, it has begun to fall below that temperature; if, at the same time, the humidity of the atmosphere increases to 75 deg. or upwards. The lower the temperature becomes in the progress of the epidemic, the cases will be more numerous the higher the atmospheric humidity. As the cold of winter comes on, the epidemic dies away.

A vote of thanks was passed to Dr. Ballard for his communication, which, it was unanimously agreed, contained most valuable observations.

Dr. ILIFF raised the question as to whether scarlatina was a disease of the poor? His experience in South London led him to believe it was not so.

Dr. ALDIS thought the disease mostly originated with the poor and then spread to the rich; but he acknowledged it to be more difficult to get information as to cases among the rich. He called attention to the influence which the elevation or depression of the locality might have.

Dr. GIBBON, from his experience of the Holborn district, agreed rather with Dr. Iliff. He mentioned a case of scarlatina in his own family in which he failed to detect the conditions laid down by Dr. Ballard.

Dr. LETHEBY said, the facts adduced by Dr. Ballard were very important. The elevation of a place ought also to be taken into account, as high places might fulfil the conditions laid down when low-lying places did not, and *vice versa*. He believed that contagion might be entirely prevented by perfect isolation aad disinfection. The latter he maintained to be ineffective even at a temperature of 500 deg. of dry heat. By infusing steam, disinfection was effected at 220 deg.

Dr. TILLEY remarked that in his district (Rotherhithe), which is a low-lying one adjoining Bermondsey, very few cases of scarlatina had occurred during the present year.

Dr. HARDWICKE said that, considering the large population of his district of Paddington, they had had very little scarlatina. He had known some of the worst cases in high houses.

Dr. LIDDLE'S experience bore out what was advanced by Dr. Iliff.

Mr. HAWKSLEY, who was introduced by Dr. Letheby and admitted as an honorary member, agreed almost entirely with Dr. Ballard's observations. He believed the same conditions were to be found in the case of jungle fever, and other fevers in the Indies.

Dr. BALLARD remarked as to the case under the Workship's Regulation Act in Islington, which appeared in the papers, the Act had not failed. The magistrate allowed the case to be a bad one. It was only thrown out on a point of technicality, no date having been assigned to the breach of the Act. A new summons was being taken out.

THE TEACHING OF MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

THE Lecturers on Midwifery and the Diseases of Women and Children attached to the London Schools, have met together to answer questions submitted to them by Mr. Syme, as Chairman of the General Medical Council on Medical Education. They have drawn up a minute in response to his queries, in which they express the unanimous opinion that the actual means of study, and the time devoted to it in the present curriculum, are insufficient. They are of opinion that the subjects taught should include Pregnancy, Parturition, and Lactation; the Functions and Diseases of the Sexual System of Women; and the Diseases of Children. They think the subject should be extended over two courses of lectures—one in the second, and one in the third summer session; and that not less than twenty clinical lectures should be attended during the third or fourth winter session. For the efficient teaching of Midwifery, they think indispensable the attendance of students on systematic lectures, fully illustrated by preparations, specimens, drawings, and manual demonstrations; and that there ought to be an Obstetric Physician, Assistant-Physician, and Obstetric Resident, at every hospital. As to instruction in Diseases of Women and Children, they are of opinion that there should be suitable wards and out-patient departments for these cases at all hospitals; and that attendance and clinical instruction should be required and should "count" in College and University curricula.

VACCINATION.

AT the last meeting of the Council of the Royal College of Surgeons, the following resolutions of the General Medical Council, with respect to Vaccination, were adopted.

1. That a Certificate should be required by each Licensing Body from every candidate for its degree, diploma, or license to practise medicine or surgery, that he has studied vaccination under a competent and recognised teacher, that he has himself performed the operation successfully under the teacher's inspection, that he is familiar with the different stages of the vaccine vesicle, and with the methods of preserving lymph, and is thoroughly informed in every necessary part of the subject.

2. That such certificate should only be received by any Licensing Body from recognised vaccine stations, or from recognised vaccine departments in medical schools or hospitals, or other public institutions where the appointed teacher of vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (perhaps eight or ten on an average weekly) as may be found, after due inquiry in the first instance confirmed by authentic returns, or inspections from time to time, to be sufficient for this purpose at each place.

And that the regulation restricting the grant of the certificate of instruction and proficiency in vaccination, holding the appointments or possessing the opportunities enumerated in the second recommendation, be applicable to candidates commencing their professional education on or after the 1st of October, 1868.

The proceedings of the Council of the Royal College of Surgeons, from which we make the above extract, are now suspended in the hall of that institution for the perusal of members; the other matters mentioned in them have already been published in the BRITISH MEDICAL JOURNAL from other sources of information.

UNIVERSITY COLLEGE HOSPITAL DINNER.—His Royal Highness the Prince Christian of Schleswig Holstein has consented to preside at the Annual Festival to be held in the spring on behalf of the Funds of the University College Hospital.

MORTALITY FROM ANEURISM.—In the course of a discussion on aneurism in the San Francisco Medical Society, reported in the *Pacific Medical and Surgical Journal*. Dr. A. G. Soule said that deaths from aneurism were, in proportion to the population, nine times more numerous in San Francisco than in New York; the latter city showing a yearly average of one such death to every 27,000 inhabitants, while in the former the mortality reaches one in every 3,000. Dr. Gibbons, Jun. stated the percentage of deaths from aneurism to the total mortality to have been as follows: England, 1860 to 1864, 0.09; New York, 1866-7, 0.06; Brooklyn, 1866-7, 0.09; Philadelphia, 1863, 0.06—1864, 0.003; Boston, 1863, 0.06—1865, 0.09; St. Louis, 1865, 0.02; San Francisco, 1858, 0.52—1859, 0.70—1866, 1.39—1867, 1.40—1868, (six months,) 2.12.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH: SPECIAL MEETING.

A special general meeting of the Metropolitan Counties Branch will be held at 37, Soho Square, on Tuesday, December 8th, at 4 P.M., to consider the address issued by a Committee of the Association in reference to the Direct Representation of the Profession in the Medical Council. (See British Medical Journal, Nov. 7, pp. 506-7.)

A. P. Stewart, M.D. } *Honorary Secretaries.*
Alexander Henry, M.D. }
London, November 17th, 1868.

BATH AND BRISTOL BRANCH.

The next ordinary meeting of the above Branch will be held at the York House, Bath, on Thursday evening, December 10th, at 8 P.M.; R. N. Stone, Esq., President.

Charles Steele, } *Honorary Secretaries.*
R. S. Fowler, }
12, Meridian Place, Clifton, November 1868.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETINGS.

The first ordinary meeting of the Branch for the present session was held at the Midland Institute, Birmingham, on Thursday, October 8th, at 3 P.M. Present, C. A. Newnham, Esq., President, in the Chair; and forty-five members.

New Members.—The following new members were elected:—J. M. Ballenden, M.D., Sedgley; J. Cooke, M.B., Tettenhall; J. Fraser, M.D., Wolverhampton; E. Haughton, M.D., Great Malvern; W. B. Lamb, Esq., Albrighton; G. W. Malim, Esq., Bilston; R. B. Moore, Esq., Wolverhampton; C. L. H. Pemberton, Esq., Bembury; E. Turner, Esq., Wadsley.

Communications.—1. Mr. Vincent Jackson exhibited the Right Mamma of a married woman aged 40, affected with Multiple Fibrous Adenocele. The tumours, three in number, the largest being of the size of a large walnut, had existed for two years. Pain had been frequently felt, but not at any time with great severity. Before operation, the lobed character of the tumours was well manifested, assisted in a great measure by the lean condition of the patient; and their elasticity under digital pressure, as compared with the hardness of scirrhus, was also worthy of notice.

2. Mr. Jackson also exhibited, for Mr. Haden of Sedgley, six Carpal and three Metacarpal Bones of a Pig's Foot, the contents of a strangulated Inguinal Hernia. The case was that of an old man admitted into the Dudley Workhouse for strangulated inguinal hernia of many days' duration. On the day preceding the strangulation, he partook of a pig's foot for dinner, swallowing several of the small bones. Mr. Haden operated, but found that the bowel had extensively given way, and removed, through the lesion, the bones one by one.

3. Dr. Balthazar Foster exhibited a specimen of Tricuspid Stenosis. The segments of the tricuspid valves were matted together, so as to reduce the right auriculo-ventricular opening to a small circular aperture admitting only the tip of the forefinger. The walls of the right auricle were thickened, and the auricle was greatly dilated. There was also mitral stenosis. The physical signs observed during life were, a distinct diastolic murmur audible at the ensiform cartilage and right edge of the sternum, growing fainter towards the left apex (until the area of the direct mitral murmur was reached), but inaudible at the base of the heart; distension of the jugular veins; lateral increase of cardiac dulness; and a diastolic thrill, very perceptible over the right heart. The condition dated from a rheumatic attack seven years ago. Dr. Foster laid down the physical signs above mentioned as characteristic of the lesion.

4. Mr. Sampson Gamgee exhibited a Tongue which he had removed by the *écraseur* from a patient at the Queen's Hospital. It presented deep ulceration, confined to the left half of the tongue. The whole of the disease appeared to be removed.

5. Mr. Pemberton related the history of a case of Popliteal Aneurism cured by ligature of the femoral artery. Compression had been previously adopted without effect, though maintained effectively by means of spring compresses alternately applied at the groin and at the apex of Scarpa's triangle; and afterwards by means of a bag of shot, held in place by relays of dressers.

6. Dr. Heslop read a very interesting paper on the Application of Modern Ideas to Infantile Therapeutics.

The communications gave rise to interesting discussion.

The second meeting was held on November 2nd. Present, C. A. Newnham, Esq., President, in the Chair; and fifty-four members.

Representation of the Profession in the Medical Council.—Mr. Bartleet, Honorary Secretary, read a letter from the General Secretary of the Association, requesting that the attention of the Branch be drawn to the address of the Committee of Council (published in the Journal) with regard to the Direct Representation of the Profession in the General Medical Council. Mr. Bartleet stated that he had written letters, to the number of fifty, to all the candidates for Parliament in this neighbourhood.

It was proposed by the President, Mr. Newnham, seconded by Mr. Alfred Baker, and supported by Mr. Clayton and Mr. Gamgee, and carried unanimously—

"That this meeting cordially approves of the course taken by the Committee of Council, and by the Committee appointed at the Oxford meeting, towards securing the direct representation of the profession in the General Medical Council; and this meeting urges upon the members of the Branch to give their earnest support to the movement."

Various scientific communications were also read, which will be reported in our next issue.

SOUTH-EASTERN BRANCH: WEST SURREY AND SUSSEX DISTRICT MEETINGS.

A meeting was held on Thursday, November 19th, at the Royal Surrey County Hospital, Guildford. The chair was taken by Mr. Albert Napper at 4 P.M.

Next Meeting.—It was arranged that the next meeting of the Society should be held at Horsham on Thursday, February 21st, 1869, and that Mr. J. D. Matthews be requested to take the chair.

Papers, etc., 1.—Mr. Sydney Jones read a very interesting paper upon Excision of the Joints, drawing attention especially to those cases which were suitable for the operation. Mr. Jones also exhibited an interesting specimen from a recent case of excision of the knee-joint. Mr. Jones received the thanks of the meeting for his valuable paper. 2. Mr. Albert Napper read a very interesting paper upon Moveable Iron Fever Hospitals for village use. Mr. Napper also exhibited plans and a model. It was suggested that the matter should be brought under the notice of the medical officer to the Privy Council. 3. Mr. Napper also exhibited a preparation and photograph from a case where Spontaneous Dislocation of the Knee took place. 4. Mr. J. B. Stedman made some valuable remarks on a case of Enteritis.

Testimonial to Mr. Heckstall Smith.—Dr. Holman read a letter from Mr. J. M. Burton on the subject of the proposed testimonial to Mr. Heckstall Smith. Dr. Holman drew attention to the honourable, courageous, and unselfish manner in which Mr. Smith had acted in defending the action brought against him.

The Dinner took place at 5·30 P.M at the Angel Hotel, and was well attended.

NORTHERN BRANCH: SPECIAL MEETING.

A special meeting of the members of the Northern Branch was held in the Library of the Newcastle Infirmary on Wednesday, November 25th; Dr. Gibson of Newcastle in the Chair.

Direct Representation of the Profession in the General Medical Council.—The address from the Committee appointed at the Oxford meeting was read by Dr. Philipson, Honorary Secretary. It was moved by Mr. Leonard Armstrong (South Shields), seconded by Dr. Newcombe (Gateshead), and unanimously carried—

"That this meeting cordially approves of the address of the Committee appointed at the Oxford meeting of the Association, respecting the direct representation of the profession in the General Medical Council."

It was also moved by Mr. Richard Clarke (Newcastle), seconded by Dr. Reid (Newbiggin-by-the-Sea), and unanimously carried—

"That a memorial to Her Majesty's Government, and petitions to both Houses of Parliament, in support of the Medical Acts Amendment Bill, and in favour of the direct representation of the profession in the General Medical Council, be presented by the Northern Branch of the British Medical Association; and that such memorial and petitions be prepared and signed by the President and Honorary Secretary."

On the motion of Mr. Henry Wilson (Marske, Redcar), a vote of thanks to the Chairman was carried by acclamation.

Punctiform or Capillary Ecchy

Supplement to DR. OGSTON'S *paper of September 26th,*

1	Lungs.	..	..	..	..	..	..	..	..	..	..	..	..
2	do.	..	..	..	..	..	..	..	..	..	..	..	..
3	do.	..	Scalp.[1]	Pericranium.[1]	..	..	..	Kidneys.	..	..	..	..	..
4	do.	Heart.[1]	do.	..	..	..	..	..	..	..	..	..	..
5	do.	do.	do.	do.	..	..	..	do.	..	Liver.	..	..	..
6	..	..	do.	do.	..	..	..	..	..	..	..	..	..
7	do.	..	do.	do.	..	..	..	..	..	..	..	..	..
8	do.	..	..	..	..	..	..	..	..	..	..	..	..
9	do.	do.	do.	do.	Thymus.	..	..	..	..	..	..	..	..
10	do.	do.	do.	..	..	Pericardium.	..	..	..	..	..	..	..
11	do.	do.	..	..	..	..	..	..	..	..	..	..	..
12	do.	..	..	..	..	..	Aorta.	..	..	..	..	..	..
13	do.	..	..	..	..	..	..	..	..	..	Skin.[5]	..	..
14	do.	do.	..	..	..	..	..	..	..	..	..	..	..
15	do.	do.	..	..	..	..	..	..	..	..	..	..	..
16	do.	do.	..	..	..	..	..	..	..	..	..	..	..
17	do.	..	..	..	..	..	..	..	..	..	..	..	..
18	do.	..	..	..	..	..	..	..	..	..	..	..	..
19	do.	..	do.	do.	..	..	do.	..	..	..	..	..	..
20	..	..	do.	..	..	..	..	..	..	..	..	..	..
21	do.	do.	..	..	do.	..	..	..	..	..	..	..	..
22	do.	do.	..	..	do.	..	..	..	..	..	..	..	..
23	..	do.	..	do.[2]	..	..	do.	..	..	..	..	..	..
24	..	..	..	..	..	..	..	..	..	..	..	..	..
25	do.	do.	..	..	..	..	..	..	..	..	..	..	..
26	do.	..	..	..	..	..	..	..	..	..	..	..	..
27	do.	..	..	..	..	..	..	..	..	..	..	..	..
28	do.	do.	..	..	do.	do.	do.	..	..	..	..	..	..
29	do.	do.	do.	..	do.	..	..	..	..	..	..	..	..
30	do.	..	..	..	..	..	..	..	..	..	..	..	..
31	do.	..	..	..	..	..	..	..	..	..	..	..	..
32	do.	..	..	..	..	..	..	..	..	do.	..	..	..
33	do.	do.	do.	do.	..	do.	..	..	..	..	..	..	..
34	do.	do.	do.	..	..	..	..	..	..	do.	..	..	..
35	do.	do.	..	..	do,	..	..	..	..	..	..	..	..
36	do.	..	..	..	..	..	..	..	..	..	do.	..	..
37	do.	..	..	..	..	..	do.	..	..	..	..	..	..
38	do.	do.	..	..	do.	..	..	..	..	..	..	..	..
39	do,	do.	..	..	..	..	do.	..	..	..	..	..	..
40	do.	..	..	..	..	..	..	..	..	..	..	..	..
41	do.[3]	..	..	..	do.[3]	..	..	..	..	..	..	..	..
42	do.	..	..	..	..	..	..	..	..	..	..	..	..
43	do.	..	..	..	..	..	..	..	..	..	..	..	..
44	do.	do.	..	do.	do.	do.	..	..	..	..	..	..	..
45	do.	..	do.	..	..	..	..	..	..	..	..	..	..
46	do.	..	..	..	..	..	..	..	..	..	..	..	..
47	do.	do.	..	..	do.	do.	do.	do.	Spleen.	..	..	..	Pulmonary Artery.
48	do.	..	do.	do.	..	..	..	..	..	..	..	..	..
49	do.	do.[4]	do.[4]	do.	..	do.	..	..	..	..	..	..	..
50	do.	..	..	..	do.	..	..	..	..	..	..	..	..
51	do.	do.	do.	do.	..	..	..	..	..	..	..	..	..
52	do.	do.	..	do.	..	..	..	..	..	..	..	..	..
53	..	do.	do	do.	..	..	..	..	..	..	..	..	..
54	do.	do.	do.	do.	do.	..	..	..	..	do.	..	..	..
55	do.	do.	do.	do.	do.	do.	..	..	..	..	..	Diaphragm.	..
56	do.	..	do.	..	..	..	..	..	..	..	..	..	..
57	do.	do.	do.	do.	..	do.	..	..	..	..	..	..	..
58	do.	..	..	..	..	..	..	..	..	..	..	..	..
59	do.	do.	do.	do.	do.	..	do.	do.	..	do.	..	..	..

(1) Of irregular form, (2) some irregular, (3) few in number, (4) some small and regular, others large and irregular, (5) or left side of che

2.			
.	50 years.	Hanging.	Frothy mucus in trachea. Trachea reddened. Congestion of lungs and right heart.
.	45 years.	Drowning.	Watery froth in trachea. Water in bronchi and stomach. Congestion of lungs and right heart.
,	58 years.	do.	Watery froth in trachea. Water in bronchi, lungs, and stomach. Congestion of lungs and right heart.
,	45 years.	Violence.	Fractures of cranium.
	New born.	do.	Fractures of limbs. Post mort. mutilations. Lungs in the fœtal state.
	do.	do.	Fractures of limbs. Post mort. mutilations. Tongue torn out during life.
	do.	do.	Bones of skull and face flattened.
	do.	do.	Diffused blood clots under the scalp and on the brain.
	do.	do.	Fractures of cranium.
	do.	do.	Do. do.
	do.	do.	Do. do.
	39 years.	do.	Fractures of cranium. Laceration of the brain.
ostalis.	58 years.	do.	Ruptures of the liver, spleen and kidneys.
	New born.	do.	Fractures of skull. Mutilations of soft parts (neck and limbs).
	25 years.	Scarlatina.	
	38 years.	Heart disease.	Hypertrophy of the heart. Ossification of its mitral valve. Anasarca.
	5 weeks.	Cold.	Frothy mucus in trachea. Air passages markedly pale.
	6 weeks.	do.	
	New born.	Apoplexy.	Frothy mucus in trachea. Fluid blood in quantity under the scalp and cranium.
	49 years.	Pneumonis.	Grey hepatisation of both lungs.
	3 months.	do.	Red hepatisation of both lungs.
	7 weeks.	do. ?	Red hepatisation of both lungs (partial).
	39 years.	do. ?	Red hepatisation of both lungs (partial). Frothy muco-purt. fluid in air passages and lungs. Trachea reddened.
	38 years.	Pulmy. Apoplexy.	Both lungs extensively apoplectic. Copious muocus froth in trachea and bronchi.
	5 weeks.	Pulmy. Œdema.	Both lungs extensively œdematous.
	2 months.	do.	Do. do. do.
	7 weeks.	Bronchitis ?	Frothy mucus in trachea, bronchi, and air cells. Intralobular emphysems of lungs.
	2 months.	do. ?	Do. do. do. do.
	6 weeks.	do. ?	Do. do. do. do.
	5 days.	do. ?	Do. do. do. do.
	4 months.	do. ?	Do. do. do. do.
	11 weeks.	do. ?	Do. do. do. do.
	35 years.	Suffocation.	Bloody fluid in the trachea. Found dead in bed. Face buried in a bloody pillow. Previous brutal intoxication.
	37 years.	do.	Sand in mouth, throat, and trachea. Air tube reddened. Blood clot in upper lobe of right lung. Buried in a sand pit.
	15 months.	do.	Abrasions around the lips.
	34 years.	do.	Contusions of nose and lips. Blood in mouth. Mucous froth in trachea and bronchi. Found dead (after a deep debauch) with face buried in bloody pillow.
	45 years.	do.	Farinaceous pulp in mouth, throat, and larynx. Particles of soot in trachea. Perished in a burning house.
	3 months.	do.	Farinaceous pulp in larynx, trachea, bronchi, and stomach.
	6 months.	do. ?	Frothy mucus in trachea.
	6 weeks.	do. ?	Frothy mucus in larynx, trachea, and bronchi.
	do.	do. ?	Frothy mucus in larynx, trachea, and bronchi (copious). Trachea and bronchi reddened.
	3 months.	do. ?	Do. do. do.
	New born.	do. ?	
	12 days.	do. ?	Mucus at bottom of trachea.
	10 weeks.	do. ?	Mucus in throat and trachea. Margins of lungs emphysematous.
	New born.	do. ?	Frothy mucus in trachea.
	5 weeks.	do. ?	
	New born.	do. ?	Frothy mucus in trachea.
	do.	do. ?	Frothy mucus (red) in trachea.
	do.	do. ?	
	do.	do. ?	Reddish fluid in mouth and throat.
	do.	do. ?	
	do.	do. ?	Bluish discolorations inside and outside the lips. Frothy mucus in larynx and bronchi. Trachea and bronchi reddened.
	do.	do. ?	Frothy mucus in trachea. Trachea reddened.
	do.	do. ?	Reddish, partly frothy, mucus in larynx, trachea, and larger bronchi.
	do.	do. ?	Frothy mucus at bottom of trachea.
	do.	do. ?	Frothy mucus in trachea.
	5 months.	do. ?	Frothy mucus (copiously in trachea. Trachea reddened.
	New born.	do. ?	Sanguineous fluid (not frothy) in trachea. Lungs in the fœtal state.

REPORTS OF SOCIETIES.

DUBLIN OBSTETRICAL SOCIETY.

SATURDAY, NOVEMBER 21ST, 1868.

GEORGE JOHNSTON, M.D., in the Chair.

THIS was the first Meeting for the Session. A large number of the profession, and numerous visitors, were present.

Annual Report.—The Secretary, in reading the Annual Report, referred to the recent death of the President, Dr. Hardy; of Dr. Strange, and other members, and proceeded to give statistics of the numbers of members, and of the financial affairs of the society, both of which were considered to be highly satisfactory. Twenty-nine papers had been read during the past session.

The following resolutions were adopted:—Moved by Dr. MCSWINEY, seconded by Dr. ATTHILL, "That the Report now read be adopted, and entered on the minutes.

Moved by Dr. MCCLINTOCK, seconded by Dr. CHURCHILL:—"That we desire to express sincere regret at the death of our late President, Dr. Hardy, and to record our grateful recognition of the active and unceasing interest he took in the welfare of this Society during his twenty-seven years of membership, as well as our warm admiration of the suavity and sterling honesty which invariably characterised his intercourse with all his professional brethren."

Moved by Dr. BEATTY, seconded by Dr. FITZPATRICK:—"That the thanks of the Society be given to the President of the College of Physicians, the Governor of the Apothecaries Hall, the College of Surgeons, and to our other distinguished visitors for their presence this evening."

Officers and Council.—The following gentlemen were elected officers of the society for the ensuing year:—*President*—J. Ringland, M.B. *Vice-Presidents*—J. A. Byrne, M.B.; G. Johnston, M.D. *Treasurer*—H. Halahan, L.K.R.C.P. *Secretary*—G. H. Kidd, M.D. *Committee*—T. E. Beatty, M.D.; F. Churchill, M.D.; J. Cronyn, L.K.Q.C.P.; J. Denham, M.D.; A. H. M'Clintock, M.D.

President's Address.—The Chairman addressed the society, referring at some length to the loss it had sustained in the death of Mr. Hardy, and congratulated the members present on the prosperous condition of their body, which prosperous condition, he added, was in a great measure due to the energy and efficiency of their admirable Secretary, Dr. Kidd.

The chair having now been taken by the newly elected President, Dr. Ringland, an address was delivered by that gentleman, wherein, after referring to the lamented decease of his predecessor, and having thanked the members for his election, he gave a historical sketch of the society, and of the value of its papers for many years past. Like the preceding speaker, the President also alluded to the benefits which would certainly accrue to the society from the valuable services of their Secretary. After some further observations, Dr. Ringland concluded amidst applause.

The late Dr. Hardy.—Dr. M'CLINTOCK read a biographical sketch of the late Dr. Hardy. He altogether opposed the idea of pronouncing a mere panegyric or eulogium on the lamented deceased:—

SAMUEL LITTLE HARDY was born at Cole Island, County Tyrone, in 1815; was indentured to Dr. Ephraim Macdowell, and received his medical education at the Richmond Hospital. He received the license of the Royal College of Surgeons in 1839; and the diploma of M.D. Glasgow, shortly afterwards. He first practised at Cookstown for six months; after this he came to Dublin and became Junior Assistant at the Rotunda in 1842. He was elected a member of this Society in 1841; and was Treasurer of it from 1842 to 1847. He was chosen Secretary in 1850, and held that office for two years. Altogether he contributed nineteen papers, among which his best was an excellent paper on Ergot of Rye; and this paper Dr. McClintock characterised as the best ever written on the subject. He also wrote part of the well known work on Midwifery, of which the speaker was joint author. Dr. Hardy's last paper appeared in the Dublin *Quarterly Journal of Medicine* a few days after his death. He was selected Vice-President and President of the Obstetrical Society twice; and had been Member, Contributor, Treasurer, Secretary, Vice-President, President, and Honorary President, extending his connection well over a period of twenty-seven years. He was physician to the Pitt Street Institution for Diseases of Children; and, in 1855, he obtained the Chair of Midwifery at Steevens's Hospital. In 1846, he went to reside in No. 29, Molesworth Street,* which was successively occupied by Dr. John Beatty, and Dr. Wm. Beatty, and moved, in 1862, to Merrion Square. His practice was large, and remarkably successful; he was most attentive to his patients, and remarkably sanguine as to the results of his treatment, so that he got and maintained the character of an essentially practical physician.

Being addicted to severe muscular exercise and gymnastics, Dr. McClintock feared he thereby laid the foundation of his mortal illness. His code of ethics to his brethren was "Do as you would be done by." He had no professional quarrels.

CLINICAL SOCIETY.

FRIDAY, NOVEMBER 13TH, 1868.

SIR THCMAS WATSON, Bart., M.D., President, in the Chair.

DR. BRISTOWE communicated nine cases of Ascites in male patients, not complicated with disease of the kidneys, heart, or lungs, in all of which the ascites either underwent marked diminution or entirely disappeared during the period of treatment. One of the cases presented the characters of tubercular peritonitis, but the others appeared to be dependent on disease of the liver or of its capsule. In six cases paracentesis had been previously performed once or twice, in all diaphoretics purgatives or mercurials had been given with more or less unsatisfactory results. In each patient the diminution of the ascites had occurred during the employment of a tonic plan of treatment consisting in rest, careful attention to diet and regimen, combined with the continuous administration of chalybeates alone or in combination with quinine; throughout, the amendment of the constitutional state was as remarkable as the disappearance of the peritoneal effusion. A short discussion followed the reading of the paper, in which the President, Dr. Pollock, and Dr. Davies took part.

Mr. C. HEATH brought forward a case of Subclavian Aneurism. The patient had suffered from an aneurism of the opposite side which had undergone spontaneous cure. He considered the case unfit for operative interference. Were the patient in better health the distal ligature offered the best hope of success. After referring to various remedies which might be suggested. Mr. Heath said he had brought the case forward for examination and to elicit an expression of opinion with reference to treatment.—Dr. DAVIES referred to the good results which he had known to follow the local application of ice in similar cases. He thought it would be justifiable to attempt some operation which would be most advantageously practised with the help of antiseptics.—Dr. SANDERSON found, on examination, that in the right radial pulse arterial pressure was diminished and that the artery filled very slowly, results due to feeble heart action and want of elasticity in the artery. He considered the patient's prospects most unfavourable, the more soas a systolic bruit and intermittent pulse indicated serious heart disease.—Dr. BAÜMLER remarked upon the condition of the pupils as connected with the communicating fibres of the sympathetic.—Mr. BRUCE drew attention to the question of amputation at the shoulder in cases of subclavian aneurism.—Mr. MOORE would leave the patient to the chance of a spontaneous cure. He thought the principle of introducing a foreign body, such as needles passed through the aneurism, a good one.

Mr. C. HEATH, in reply, observed he had never seen any good results from the use of Ice in such cases as these.

Mr. MAUNDER read from Mr. Little a report of the cases referred to at the last Meeting in which the Femoral Artery was tied for Traumatic Inflammation of the Knee Joint. He referred to the safety with which the femoral artery might be ligatured when not previously diseased, and to the good results which followed the operation in the present instance.—Mr. BRYANT considered the operation worthy of attention, but he thought that it would be most serviceable in the treatment of large diseases which could not be removed, such as cancers, especially bleeding ones.—Mr. MOORE approved of the treatment in this case, and referred, in illustration, to a case in which good results followed acupressure of the brachial for the cure of acute suppuration deeply seated about the hand.—Mr. HILL mentioned several cases in which good results had followed treatment allied to that described by Mr. Maunder. Mr. WILLETT referred to a case shewing the marked effect upon inflammation of ligature of the ulnar and radial arteries; at the same time he had seen cases like the one under Mr. Little's care in which the patients had recovered rapidly, after letting out pus from the knee-joint, under ordinary treatment.—Mr. MAUNDER observed that he wished it to be understood that he advised the operation only in very exceptional cases.

The PRESIDENT announced that the Committee on Acupressure and Torsion would be much obliged for any facts or observations which the members of the Society might be good enough to supply them with.

In the Report of Dr. Andrew Clark's remarks at the last meeting, for "limitation" read "unitarian."

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* His residence in Molesworth Street was at one time the house of the Right Hon. John Foster, afterwards Lord Oriel, and the last Speaker of the Irish House of Commons.

CORRESPONDENCE.

ALLEGED HOMŒOPATHY IN THE ABERDEEN INFIRMARY.

Sir,—I beg to thank you for your promise of an impartial investigation into the circumstances connected with the alleged introduction of homœopathy into the Aberdeen Infirmary.

I will not attempt to justify the employment, in my defence, of harsher terms than, upon reflection, I would have considered proper. The provocation was great; my colleagues having, without previous conference with me, affixed a stigma to me, and accused me of certain opinions and practices which, you will have seen, they have declined to substantiate; but this should not have made me lose my equanamity. I regretted it much; and I, therefore, in one of the local newspapers, inserted an apology for the terms I used. More I could not have done.

You are aware that my therapeutic views have been before the profession for a considerable time. They were taught to the students in the Aberdeen Infirmary two years ago, as part of a course of clinical lectures delivered conjointly by Dr. Smith, one of my protesting colleagues, and myself. An abstract of our lectures was subsequently printed and put into the hands of the students and the medical staff, without my opinions eliciting any mark of disapproval. I afterwards embodied the same views in three papers, which I read before the Aberdeen Medico-Chirurgical Society on separate occasions, and received the thanks of the Society, one of my protesting colleagues acquiescing therein. The papers were subsequently accepted by, and published in, the *Edinburgh Medical Journal*—appearing in February, April, and September, of the present year; and, so far from being challenged by the profession, they have received commendatory notices from writers in different periodicals.

The views propounded are shortly these: 1. That, in a certain proportion of cases—namely, those diseases which are attended by dilatation of blood-vessels (exhausted sympathetic)—medicines are to be selected for the cure, which, in their ordinary manifestation on the healthy body, cause symptoms analogous to the disease. 2. The dose, in such cases, to be less than will aggravate the symptoms; producing contraction of blood-vessels, *and no more;* the actual dose depending on the nature of the cases, and to be determined by experience. The only difference between Trousseau's substitution theory and mine is simply this, that, while Trousseau gives doses so large as to produce aggravation of symptoms in the first instance, I give the medicines in doses less than will produce such aggravation, but still capable of producing appreciable effects in cases to which they are suitable. Now, what is so heretical in all this, as to call for my expulsion from the profession?

It cannot be denied, that my views give countenance to the literal principle of *similia similibus curantur.* Nevertheless, I have no sympathy with the sect of the pure Hahnemanians, nor with their theories of potentisation, dynamisation, etc.; and, in my practice, I merely carry out what I have expounded in my papers, and *from which I have in no way departed*—namely, that the vaso-motor theory has a certain range of application; and that, to obtain the benefit of such powerful medicines, as aconite, arsenic, strychnia, etc., on this principle, they must be given in fractional doses. Is this heresy? The mere fact that, in the course of my experiments, I have made use of a few medicines which are not officially authorised, does not affect the question.

I have, in conclusion, to ask Drs. Harvey and Smith to show cause why they consider my therapeutic views objectionable, and to do so through the legitimate channel. I am, etc.,

Aberdeen, November 1868. Arch. Reith.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

Sir,—In the British Medical Journal of the 14th inst. you inserted, at the request of the Council of the Poor-law Medical Officers' Association, a copy of a circular letter which has been since sent, through the members, to candidates for a seat in Parliament; and I have now to ask you to permit me briefly to state what has proceeded from it.

It was decided that the replies should be forwarded to me, for the purpose of being copied and arranged, with the view to their being laid before the Council of the Association at their next meeting in December; but, as the results are extremely gratifying and encouraging to the future prospects of the Association, I should feel obliged if you will allow me, through your columns, to inform our members and Poor-law medical officers generally that gentlemen belonging to every shade of political opinion, and who have since been returned, have written to state that they will advocate a modification of the Poor-law Board in the direction suggested by the Council of the Association, and redress of the grievances of Poor-law medical officers; whilst many others have intimated their intention to give favourable consideration to the question when it comes before the House. Amongst gentlemen who have replied favourably to the objects of the Association, are to be found Mr. Birley, Mr. J. Bright, Mr. Muntz, Right Hon. R. Lowe, Mr. H. Lewes, Lieut.-Colonel Lloyd Lindsay, Mr. Brand, Sir G. Jenkinson, Mr. Torrens, Mr. C. Ancott, Dr. Brewer, Mr. C. Waring, Mr. M. A. Bass, Mr. Peek, Lord G. Hamilton, Mr. C. Reed, Lord E. Fitzmaurice, Lord A. Hervey, Mr. D. Bromley, Mr. Brodrick, Mr. A. Russel, Mr. Michael Biddulph, Lord C. Bruce, Mr. Gurdon Rebow, Mr. Norwood, Mr. Clay, Mr. Guildford Onslow, Mr. Pease, Mr. W. Dilke, Mr. Hoare, Mr. J. Holms, and a great many others.

In addition, I have to state that I have received several letters from Poor-law medical officers, informing me that they have had either satisfactory interviews with, or communications from, members; and I should feel further obliged if you will permit me to request them to transmit to me all written replies as early as may be convenient, that a correct list might be made of all gentlemen who are disposed to support the objects of the Association in the House.

I am, etc., Joseph Rogers,
President Poor-law Medical Officers' Association.

OUT-DOOR PRACTICE AS A MEANS OF MEDICAL EDUCATION.

Sir,—The profession cannot but rejoice in the present laudable effort on the part of many to raise its general standard, and to render it more homogeneous in its character. To this end, it appears to me imperative that we should be guarded how we accept the deductions from Mr. Underhill's conclusion, as expressed in his letter in your impression of the 7th instant. Mr. Underhill writes as a practical man, and one, no doubt, of vast experience; still I maintain that the deficiency in young medical assistants, of which he complains, points more to radical errors in the management of out-door dispensary practice and the out-patient department of our large hospitals, than it does towards the necessity of returning in any measure to the exploded system of apprenticeship. An art, dependent as ours is on the circle of the sciences, should certainly be commenced from its theoretical basis. If the contrary be the case, empirical habits of thought are fostered, to the detriment of scientific progress, first in the individual, then in the profession at large. So far from apprenticeship enabling the student "to derive more instruction from hospital practice, and placing him in a great advantage over those who have not had that privilege," I maintain that quite the contrary is the effect; and I appeal to medical teachers in general, if they do not find the most promising and zealous students among those who have commenced their studies on a purely scientific basis; whereas those who have been pupils and apprentices it is difficult to bring to hard inductive research at all, because they know (or think they know) all those various details that make the groundwork of medical facts, first for objective study, and then for subjective reasoning.

I certainly admit that many common and important diseases in general and private practice are never to be witnessed in the hospital wards; but they are to be seen in plenty among the out-patients, and certainly among dispensary patients; and here lie the fields that are at present so unprofitably tilled, whether we regard the patients' good or the advancement of science. Rather than enter into any detail as to how this ground is to be occupied, I would point out an instance where it is an accomplished fact; namely, at the Royal Public Dispensary of Edinburgh, where the advanced third and fourth year students personally attend patients at their own houses. Some may object to such trial of "prentice hands" on these by no means *corpora vilia;* but, seeing this must be done either in quiet country lanes or in dense populations, surely it is better here, when under the care and direction of able medical teachers, than when left to some country routiner, who often uses cheap, apprentice, unqualified labour, to save his own, and certainly without any desire to impart sound medical instruction.

There is still another matter connected with medical reform, on which I would venture a few remarks. At the present time, there is evidently a desire to legislate for the better protection of the profession against its numerous parasites in the shape of quacks, wise women, prescribing druggists, etc. But what of all this, if the legitimate members of the profession itself are to be allowed latitude to act in any dishonourable way they please, to the detriment of the whole craft? I refer to men who keep open shop, and so degrade a noble profession into a drug-trade; to others, who advertise in their windows "medical advice gratis"; to others, who turn herbalists or eclectic philosophers, duly advertised; not to mention the upas plant of homœopathy. For myself, I would unfrock all men who professedly depart from the accepted rules and teachings of the schools in which they were educated. Common sense would dictate this. To be of a body, and yet against the body, is contrary to the body's good; so let the body cast it out. The profession would be no losers; the public would be no losers. On the devoted head of the offender would the mischief deservedly fall.

I am, etc., PERCY LESLIE, M.D.

Birmingham, November 1868.

THE NEWCASTLE-UPON-TYNE COLLEGE.

SIR,—I see that, in the issue of the BRITISH MEDICAL JOURNAL for November 7th last, p. 501, the number of students attending at the Newcastle-upon-Tyne College of Medicine, in connection with the University of Durham, is put down at twenty-seven. This, allow me to inform you, is not the correct number; it ought to have been forty-two. Perhaps you will kindly make this known in the next number.

I am, etc., D. EMBLETON, M.D.,

Registrar Newcastle-upon-Tyne College of Medicine in connection with the University of Durham.

Eldon Square, Newcastle, November 1868.

MR. J. F. CLARKE AND THE MEDICAL PRESS.

SIR,—Will you kindly grant me a small space in your valuable JOURNAL, to thank the numerous gentlemen who have written to me respecting my temporary retirement from the medical press. I regret I have not time to answer them individually, bnt I trust they will accept this mode of my grateful acknowledgment of their kind expressions towards me.

I am, etc., J. F. CLARKE.

ANEURISM OF THE PULMONARY ARTERY AS A SOURCE OF HÆMOPTYSIS.

SIR,—In your impression of this day, I observe a letter from Dr. R. P. Cotton, under the above heading, in which, referring to a paper by Mr. Fearn of Derby, published in the *Lancet* in the year 1841, he says: "Mr. Fearn's case, indeed, complete and important though it was, seems to have been altogether forgotten." If Dr. Cotton will refer to the *Edinburgh Medical Journal* for the present month, page 400, he will see that Mr. Fearn's case, though it may have been forgotten at home, has attracted attention abroad. It is quoted at full length in a paper by Dr. Vald. Rasmussen of Copenhagen, published in the Danish journal the *Hospitals-Tidende*, February and March 1808, on "Hæmoptysis, especially when fatal, in its Anatomical and Clinical Aspects." In this essay, Dr. Rasmussen reports seven or eight cases of his own, in which fatal hæmoptysis was due to aneurism of the pulmonary artery, and with these he quotes *in extenso* all the cases which he succeeded in discovering on record in medical literature. These latter were only three in number; and "it is very remarkable", adds Dr. Rasmussen, "that, although the cause of the formation of these aneurisms, cavernous pulmonary phthisis, is so universally met with and common to all nations, all the three reports are from England, which, as is well known, is distinguished, among many other things, by its richness in aneurisms." The three cases of hæmoptysis proceeding from aneurism of the pulmonary artery so quoted are: that by Mr. Fearn already alluded to (*Lancet*, 1840-41, vol. i, p. 679); one by Dr. Cotton himself (*Medical Times and Gazette*, vol. i, 1866, No. 811 for Jan. 13, p. 37); and one, which also seems to have escaped Dr. Cotton's observation, brought by Dr. Peacock, in the year 1843, before the Anatomical Society of Edinburgh, and published in the third volume of the *Edinburgh Monthly Journal*, p. 383. Owing to the great length of Dr. Rasmussen's essay, I was obliged to abridge my translation of it; and I, therefore, contented myself with simply referring to the three cases taken from British literature, as being all easily accessible to the English reader. The concluding portion of the translation will appear in the December number of the *Edinburgh Medical Journal*.

I am, etc., WILL. D. MOORE, M.D.

40, Fitzwilliam Square West, Dublin, Nov. 1868.

MURDER OF A MEDICAL STUDENT IN DUBLIN.—We regret to observe it stated that, on Wednesday afternoon, a medical student, named Miles, was murdered, close to Moore's statue, in College Street. The skull was fractured. He was insensible when taken to the hospital, and died shortly after his admission. A man, who assisted in bringing him to the hospital, stated that he saw three men, whose names he gave, attack the deceased.

OBITUARY.

JOSEPH BROWN, M.D., SUNDERLAND.

THE death is announced of this highly respected physician, at the age of 95. He served with distinction in the Peninsula, and, after the battle of Waterloo, settled in Sunderland. As a contributor to medical literature, in Sir J. Forbes's *Cyclopædia of Practical Medicine* and the *British and Foreign Review*, as a philosophic and cultivated writer and thinker on general subjects of religious and social interest, as an active magistrate and philanthropist, Dr. Brown was widely respected and beloved by his profession and his fellow-townsmen.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Nov. 18th to 24th (both inclusive).

Taken at Kew, by Dr. TREUTLER, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.887
Highest reading of do. (corrected and reduced), on 19th, 10 A.M.	30.400
Lowest ditto Ditto on 22nd, 10 P.M.	29.102
Range of pressure during the week	1.298
Mean temperature of the air in the shade	43.1
Mean temperature of evaporation	41.3
Mean temperature of dew-point	39.1
Mean degree of humidity (saturation=100)	86.0
Mean maximum temperature of the week	47.8
Mean minimum temperature of the week	36.1
Calculated mean temperature of the week	41.9
Maximum temperature of air in shade, on 22nd	53.5
Minimum temperature (protected), on 20th	25.5
Minimum temperature (exposed on grass), on 20th	18.3
Range of temperature during week	35.2
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 20th	88.0
Lowest ditto ditto on 18th	48.7
Mean amount of clouds (0—10)	6.6
Total rainfall (which fell on 21st, 22nd, and 23rd)	0.756 inch
Mean amount of ozone (0—10)	2.6

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	1	2	1	0	1	1	1	0	2.4
2 P.M.	0	0	2	1	1	1	1	1	0	2.4
10 P.M.	0	1	0	0	0	2	0	0	4	1.4

Mean force of wind (0—12) .... 2.1.

The weather of the week has been dull and variable. Atmospheric pressure has on an average been lower by nearly half an inch than last week, while the range has been very considerably greater. Temperature and humidity have both been greater, and the range of temperature has also been increased. Winds have been variable, and on the whole light, though it blew a moderate gale from the south-west on the 22nd. The sky has during the day been mostly cloudy, while the evenings and nights have more generally been clear. Rheumatic and pulmonary affections are somewhat prevalent in the neighbourhood, while the general health of Kew is good.

Kew, November 25th, 1868.

UNIVERSITY OF LONDON.—The following are the names of candidates who passed the Second M.B. Examination.

First Division.

Anderson, Tempest, B.Sc., University College
Batt, Charles Dorrington, St. Bartholomew's Hospita
Birt, Joseph, General Hospital, Birmingham
Eager, Reginald, Guy's Hospital
Haynes, Frederick Harry, St. Bartholomew's Hospital
Hilliard, Henry Charles, Guy's Hospital
Leech, Daniel John, Royal Manchester School of Medicine
Loy, Thomas Richardson, University College
Makens, John, Guy's Hospital
Poore, George Vivian, University College
Richards, William Alsept, King's College
Ridge, John James, B.A., B.Sc., St. Thomas's Hospital
Taylor, Frederick, Guy's Hospital

Second Division.

Buckle, William Turberville, King's College
Crowfoot, Edward Bowles, St. Bartholomew's Hospital
Fiddian, Alexander Paull, King's College
Kenyon, George Arthur, St. George's Hospital
Langmore, John Wreford, University College
McCarthy, Jeremiah (M.A.Dub.), London Hospital
Wyman, John Sanderson, St. Bartholomew's Hospital
Yeo, Isaac Burney, King's College

Honours Examination (†Deserving of Scholarship.)—Medicine.

First Class.

Poore, G. V. (Scholarship and Gold Medal), University College
†Richards, William Alsept (Gold Medal), King's College
†Anderson, Tempest, University College } equal
†Taylor, Frederick, Guy's Hospital }
Ridge, John James, St. Thomas's Hospital
Eager, Reginald, Guy's Hospital
Haynes, Frederick Harry, St. Bartholomew's Hospital

Midwifery.

First Class.

Taylor, Frederick (Scholarship and Gold Medal), Guy's Hospital
†Richards, William Alsept (Gold Medal), King's College
†Eager, Reginald, Guy's Hospital
†Anderson, Tempest, University College
Leech, Daniel John, Royal Manchester School of Medicine

Second Class.

Ridge, John James, St. Thomas's Hospital
Poore, George Vivian, University College

Forensic Medicine.

First Class.

Taylor, Frederick (Scholarship and Gold Medal), Guy's Hospital
†Eager, Reginald (Gold Medal), Guy's Hospital
†Batt, Charles Dorrington, St. Bartholomew's Hospital

Third Class.

Anderson, Tempest, University College
Poore, George Vivian, University College

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 19th, 1868.

Colson, Edward, Great Hamead, Herts
Duke, Joshua, 272, Kennington Park Road
Paterson, Walter Hugh, Brigg, Lincolnshire
Taylor, Joseph Ogilvie, Whitby, Yorkshire

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on Nov. 19th:—

Booth, Edward Johnson Hardy, L.S.A., Huddersfield (St. Thomas's)
Brown, Samuel Stainton, Lewisham (Guy's)
Butcher, William Deane, Maidstone (St. Bartholomew's)
Clarke, Francis Edward, M.B.Dub., Dunfanaghy, Donegal (Dublin School)
Cole, Richard Mount, L.R.C.P.Lond. and L.S.A., Rochester (Guy's)
Curnow, John, Penzance (King's College)
Dickson, John Robinson, M.D.Kingston, Canada
Jackson, Samuel, L.R.C.P.Edin. and L.S.A., Halifax, Yorkshire (Guy's)
Robinson, George, L.S.A., Spilsby, Lincolnshire (London)
Staveley, William Henry, Reading (St. Mary's)
Vawdrey, George, L.R.C.P.Lond. and L.S.A., Hayle, Cornwall (Guy's)

It is stated that *three* candidates failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their hospital studies for six months. Out of the sixty-seven candidates, two retired without completing their examinations; twelve were referred to additional studies for six months, twenty-five already passed diplomas in *medicine*, and the *surgical* diplomas of eight gentlemen were retained until they shall have passed an examination in medicine at the College, or at some other institution recognised for that purpose.

MEDICAL VACANCIES.

THE following vacancies are declared:—

ARDEE UNION, co. Louth—Medical Officer for the Collon Dispensary District.
BALFRON, Stirlingshire—Parochial Medical Officer.
BILLESDON UNION, Leicestershire—Medical Officer for Western District No. 2.
BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Surgeon.
BRISTOL—Medical Officer for District No. 2, of City of.
CITY DISPENSARY, Watling Street—Physician.
CLIFDEN UNION, co. Galway—Medical Officer for the Islands of InnishCoffin and Shark, in the Clifden Dispensary District.
DROGHEDA UNION, co. Louth—Medical Officer for the Stamullen Dispensary District.
ENNISCORTHY UNION, co. Wexford—Medical Officer for the Newtownbarry Dispensary District, and for the Fever Hospital.
GENERAL HOSPITAL, Nottingham—Assistant House-Surgeon.
GLASGOW EYE INFIRMARY—Surgeon.
HAMBLEDON UNION—Medical Officer for the Cheddingfold District.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Physician.
LEEDS PUBLIC DISPENSARY—Senior Resident Medical Officer.
LIVERPOOL SOUTHERN HOSPITAL—Junior House-Surgeon.
LONDON FEVER HOSPITAL, Liverpool Road—Assistant Resident Medical Officer.
NEWPORT UNION, co. Mayo—Medical Officer for the Achill Dispensary District.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
ROCHESTER, CHATHAM, AND STROOD DISPENSARY—Dispenser.
ROYAL INSTITUTION OF GREAT BRITAIN—Fullerian Professor of Physiology.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ST. PANCRAS—Medical Officer of Health.
STOURBRIDGE DISPENSARY—Surgeon.
SUNDERLAND GENERAL INFIRMARY and DISPENSARY—Physician.
TRINITY COLLEGE, Dublin—Professor of Botany.
TULLAMORE UNION, King's County—Medical Officer for the Killoughey Dispensary District.
UNIVERSITY COLLEGE HOSPITAL—Physician to the Skin Infirmary.
WESTMINSTER HOSPITAL—Resident House-Physician.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BARNISH, W. C., Esq., appointed House-Surgeon to the Chorlton-upon-Medlock Dispensary, Manchester.
*BEALES, Robert, M.D., J.P., appointed Mayor of Congleton for the ensuing year.
BLAKE, C. Carter, D. ès S., F.G.S., has been appointed Lecturer on Comparative Anatomy and Zoology at Westminster Hospital School of Medicine.
*BROWNE, Chas. W., Esq., late Medical Officer, Royal Gardens, Kew, to be District Surgeon of Stockenstrom, Cape Colony, South Africa.
HOLDSWORTH, Samuel, M.D., elected Mayor of Wakefield for the ensuing year.
*KITE, W. J., Esq., appointed Medical Officer of Health for West Bromwich.
LEVERTON, Edward J., Esq., has been appointed Surgeon to the Royal Cornwall Infirmary, Truro, in the room of Slyman Mitchell, Esq., deceased.
NORTON, G. Everitt, Esq., appointed Senior House-Surgeon at the Middlesex Hospital, *vice* H. Case, Esq.
SWINDELL, T. J., Esq., appointed the Junior House-Surgeon at the Middlesex Hospital, *vice* G. E. Norton, Esq.

BIRTHS.

BUTLER.—On November 11th, at Ormonde House, Guildford, the wife of *T. M. Butler, Esq., M.R.C.S.E., of a son.

ELLIS.—On November 14th, at Poole, Dorset, the wife of *Helen D. Ellis, Esq., Surgeon, of a daughter.

HAYWARD.—On November 7th, at Harley Street, the wife of *H. Howard Hayward, Esq., of a daughter;

DEATH.

NISBETT.—On November 14th, at Gravesend, aged 4½ years, Vernon Innes Hadlow, third child of *R. Innes Nisbett, Esq., Surgeon.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Oxley, Liverpool; Mr. Toogood, Torquay; Mr. F. W. Parsons, Islip; Mr. J. E. Cook, Gainsborough; The Medical Officers and Lecturers of Charing Cross Hospital; Mr. H. Greenwood, Liverpool; Mr. C. Carter Blake, London; Mr. Leverton, Truro; Dr. P. Leslie, Birmingham; Mr. H. Greenway, Plymouth; Dr. Heslop, Birmingham; Dr. Kidd, London; Mr. Simpson, Manchester; Dr. Roth, London; Dr. U. C. Kastogrees, Maldah, Bengal; Dr. H. Norris, South Petherton; Sir Henry Thompson, London; The Honorary Secretary of the Western Medical and Surgical Society; Dr. B. W. Foster, Birmingham; Dr. E. Ballard, London; Mr. N. Heckford, London; Dr. Basham, London; Mr. R. Quain, London; Mr. S. Solly, London; Mr. J. C. Brough, London; Dr. Ogle, London; Dr. Wolfe, Glasgow; Mr. T. Spencer Wells, London; Dr. Fuller, London; Dr. Lankester, London; Messrs. Ellis and Sons, Ruthin, North Wales; Dr. Tilt, London; Dr. Hall Davis, London; Mr. C. Penfold, London: Dr. George Johnson, London; Dr. Tanner, London; Mr. H. Power, London; Mr. W. Sharpey, London; Mr. J. Paget, London; Dr. Ralfe, Doncaster; and Mr. H. D. Ellis, Poole, Dorset.

LETTERS, ETC. (with enclosures) from:—

Dr. James Russell, Birmingham; Mr. H. Lee, London; Mr. T. H. Bartleet, Birmingham; Mr. Street, London; Dr. Huntley, Jarrow-on-Tyne; The Honorary Secretary of St. Andrew's Medical Graduates' Association; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. Warwick, Richmond; Dr. Sanderson, London; Dr. Buzzard, London; Dr. Beigel, London: Professor Wanklyn, London; Mr. Shedd, Manchester; Dr. Treutler, Kew; Dr. John Murray, London; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; The Registrar-General of England; Mr. T. M. Stone, London; Dr. Sedgwick, London; Dr. R. Beales, Congleton; Dr. Oppert, London; Mr. Fowler, Bath; Mrs. Baines, London; Dr. Taaffe, Brighton; Mr. C. W. Browne, Seymour, Stockenstrom, Cape Colony, South Africa; Dr. Samelson, Manchester; Dr. J. Morton, Guildford; Mr. J. Broadbent, Manchester; The Secretary of the Hereford General Infirmary; Dr. Thomas Littleton, Plymouth; Mr. C. Steele, Clifton; Dr. Drysdale, London; Mr. Turner, Reading; The Editor of the "Poor-Law Chronicle", London; Dr. J. G. Swayne, Clifton; Dr. Bradbury, Cambridge; and Mr. J. Messent, London.

BOOKS, ETC., RECEIVED.

Lectures on Surgery. By James Spence, F.R.S.E. Part I. Edinburgh: 1868.
Handbook of Uterine Therapeutics, and the Diseases of Women. By Ed. John Tilt, M.D. London: 1868.
Half-Yearly Compendium of Medical Science. Part II. July. London and New York. 1868.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Chas. Jas. Fox, "A Case of Removal of Breast under Nitrous Oxide"; Mr. Hunt, "On the Application of Chloric Ether to Sloughing and Irritable Wounds"; Dr. Chambers, "Cases of Carbolic Acid Treatment"; Mr. Alfred Haviland, "On the Geographical Distribution of Cancer in England and Wales, with Illustrations by Maps, etc."

TUESDAY.—Pathological Society of London, 8 P.M.—Anthropological Society of London

WEDNESDAY.—Obstetrical Society of London, 7 P.M. Council Meeting. 8 P.M. Mr. Squire, "On Infantile Temperatures in Health and Disease;" Dr. Copeman, "On the Treatment of Imperforate Hymen;" and other papers.—Geological Society.

THURSDAY.—Harveian Society of London, 8 P.M. Mr. Berkeley Hill, "On Carbolic Acid in Surgical Practice."—Royal Society.—Linnæan Society.—Chemical Society.

FRIDAY.—Western Medical and Surgical Society of London, 8 P.M. "Remarks on the Pathology and Treatment of Epilepsy."

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

NEW MEMBERS.—The names of new members proposed by Dr. Leared, Dr. E. Symes Thompson, and Dr. Watson, will be duly put in course for election. Dr. Samelson (Manchester), Dr. Bright (Norwood), Mr. A. Fleischmann (Cheltenham), Dr. J. Broadbent (Manchester), Dr. Philipson (Newcastle), and Mr. Penfold (Poplar), are thanked. Forms of proposal for new members have been forwarded to them by post.

SCARLATINA.

SIR,—Having regard to the existing epidemic of scarlatina, it would be highly interesting to ascertain, as far as possible, to what extent the disease, in its latent form, affects the present rate of mortality. For my own part, I recently recorded a cause of death as "capillary bronchitis". I only saw the child when it was at the point of death; but I had no doubt in my own mind that scarlatinal poisoning was the true cause. The presence of albuminuria is my standard in these cases; in the above, I had no opportunity of applying the test. Since forwarding my paper of last week, I have had many instances of secondary complications as the result of latent scarlatina. The ordinary history given is as follows:—A child has some little febrile disturbance. No particular notice is taken of it. The child attends school or runs about the house as usual. Soon, some puffiness of the face is noticed: and, to the surprise of all, there occurs a sudden attack of bronchitis and suppression of urine, with or without delirium and semi-coma. I fear scarlatina is, in fact, much more fatal than is generally supposed.

I am, etc.,

N. HECKFORD.

East London Hospital for Children, Nov. 1868.

MR. J. SIMPSON (Manchester).—Dr. M'Call Anderson's address is Woodside Place, Glasgow.

MR. J. E. COOK (Gainsborough).—Mr. Paget's paper was published in the BRITISH MEDICAL JOURNAL of October 24th. But it was "On Stammering with *other* organs than those of Speech." A very interesting and valuable memoir, "On Stammering considered as a Vice of Pronunciation", has been published by M. Cherin ainé. (Du Begayement consideré comme Vice de Prononciation). It may be obtained through Baillière, Regent Street, or Williams and Norgate, Henrietta Street.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Wiltshire County Mirror, Nov. 25th; The Sussex Advertiser, Nov. 17th; The Aberdeen Journal, Nov. 18th; The Aberdeen Free Press, Nov. 20th; Saunders's Dublin News-Letter and Daily Advertiser, Nov. 23rd.

OBSTETRICIAN.—You will find the desired information in our advertising columns of this week.

A CANDIDATE.—We cannot comply with your request until next week. Four of the senior candidates were rejected for the Fellowship on Wednesday. Those not in possession of a medical degree will be examined in Medicine next week.

SPEAR *v.* DOIDGE.

WE have further received for the Fund raised in connexion with this case, at the office of the BRITISH MEDICAL JOURNAL: £2 : 2 from Mr. Greenway, of Plymouth; £1 : 1, W. B. Dalby, M.D., H.M.S. *Implacable*, Devonport; £1 : 1, Thos. Littleton, M.B., Plymouth. We may remind our associates that, in this case, a patient brought an action against a surgeon for alleged unskilfulness in the treatment of a complicated injury of the bones of the forearm, including the elbow-joint. The whole weight of the surgical evidence, and, we may add, the whole force of skilled professional opinion since the trial, has exculpated Mr. Doidge. But the trial ended in a verdict for the plaintiff; and Mr. Doidge has been mulct in a sum of near £500. His immediate friends and neighbours in the profession, and the leading practitioners of the vicinity, have testified practical sympathy with him. We venture to think that it is a case in which the profession generally may be expected to take interest; and to assist in lightening the unjust burden which the chances of practice have thus imposed upon a fellow practitioner.

DR. H. JOHNSON.—The statements referred to as to the Pharmacy Bill were nothing less than a characteristicly elaborate and ludicrous blunder.

THE LATE MR. JUMP.

THE following additional subscriptions have been received by the Rev. G. W. Winter. Earl of Leicester, £5; P. Ransome, F.R.C.S., £2 : 2; Mr. Hewitt (Stamford), 10s. 6d.; Gordon Rich, Esq. (Tonbridge), £2; A Friend, by T. Palmer, Esq., £5; Q. E. D., by Dr. Lowe, £1 : 1; Rev. B. Edwards, £5; Mr. J. Hastings, £1; Miss Fanny Blake, £1; Mr. H. Childs (Lexham), £1; Mr. Palmer (Gayton Thorpe), £5; B. A. L., £1; R. Johnson, Esq. (Canterbury), £5; E. Reeve, Esq. (Swaffham), 10s.; R. Campbell, Esq. (Fakenham), £3; J. Bradfield, Esq. (Stoke Ferry), £2 : 2; Rev. J. N. Sparke, £1; Miss Sheringham, 10s. 6d.; Mrs. Rudge, sen., 10s. 6d.; Dr. Rudge (Fakenham), £1 : 1; Miss J. Allison (Hingham), £2 : 2; Mrs. Muskett (Thorpe), £1; Mrs. Forby (Tittleshall), 10s.; W. Seppings, Esq., (Lynn), £2 : 2; Mrs. Seppings, £1 : 1; Rev. W. Beckett (Ingoldsthorpe), £1; — Brown, Esq. (Titchwell), £1; Mr. Wells (Spoule), 10s.; J. Buscoll (Dereham), £1; W. P. Nicholls, Esq. (Norwich), £1 : 1; A Friend, £1; J. F. Watson, Esq. (Wigham), £1; Mr. H. Overman, £1 : 1; Mrs. Overman, £1; C. B. Rose, Esq. (Yarmouth), £3; Mr. Norton (S. Rainham), £1 : 1; Miss E. L. Norton, £1; Mr. C. J. Coe (Dersingham), £1; E. W. (Norwich), £2; Mrs. C. Reynolds, £1 : 1; Mrs. Davies, £1; M. E. A. G., £1; J. Vincent, M.D. (Dereham); Mrs. F. Long (Worthing, £2 : 2; W. Cadge, Esq. (Norwich), £2 : 2.

DR. Z. JOHNSON (Kilkenny).—1. We are glad to receive "notes" and to insert or answer "queries". 2. It is simply impossible, by any contrivance known to any bookseller, to cut the leaves of a weekly journal such as this, having so large a circulation and going to press on the night before its publication in the morning. To cut the leaves of so large an impression would involve a delay of at least twenty-four hours, and can only be done for periodicals which only profess to be a compilation of old news, and for which such a delay is unimportant. It is, moreover, we are informed, in the case of a weekly journal, illegal and contrary to the postal regulations. We are much obliged for our correspondent's kind expressions of good-will.

L. H.—We are strongly of opinion that the medical officers should make it part of the programme to obtain separate payment for medicines.

RUSTICUS.—X. L. and Dr. Langton must, we fear, be disappointed, as we have no further information on the subject than themselves, and are, for various reasons, much indisposed to ask for it at present.

MR. SALTER (Tolleshunt D'Arcy).—1. All communications concerning the JOURNAL should be addressed to the office, and not to the house of the editor. 2. All letters received are duly considered; but, with every desire to shew personal courtesy, it is impossible to send written replies, except under special circumstances.

DR. HUNTLEY'S (Jarrow-on-Tyne) literary criticisms are not without good foundation; but, sympathising with the good objects of the circular, we should be loth to print anything which could detract from its authority. Perhaps, the Committee of the Poor-law Medical Officers' Association, which includes many able writers, as well as earnest and thinking men, will, in future, be a little more careful of the wording of their circulars; the last was probably penned hurriedly.

THE result of the recent election at the Carlisle Infirmary, appears to have given rise to some considerable dissatisfaction. The vacant appointment was one of Physician to the Infirmary. Two highly respected physicians, of adequate qualifications, were candidates; they seem to have been passed over for one who is practising as general practitioner and in club practice. Moreover, this election seems to illustrate the disadvantages of the system of canvassing, and the misunderstandings which prevail as to the real meaning and value of medical degrees and titles. We confess that, in the present state of medico-public relations, we do not see the way very clearly to a remedy; but it is an obvious evil, that hospital general practitioners should be exposed to severe competition in practice from those whose external position is that of consultants; and that lay governors should vote indiscriminately, under the influence of a canvass, for the most importunate asker, without taking means to refer the professional claims of the candidates, in the first instance, to a professional tribunal.

LL.S. (Durham).—The Representative of the University of Durham in the General Medical Council, Dr. Embleton, is much respected in the Medical Council, and his return is one which we had great pleasure in announcing. We know nothing of the circumstances under which Dr. T. T. Pyle was nominated as representative of the University of Durham in the Medical Council; nor have we any knowledge of that gentleman's position and attainments. But we are far from considering that "A Medical Practitioner" is justified in attacking the University, or in assailing that gentleman as "a colliery club-doctor". There is no reason why a general practitioner should not be returned to the Medical Council, to sit beside "the most learned and most exalted" persons whom the Medical Practitioner names, in his letter to the *Newcastle Journal*. On the contrary, there are a great many reasons why he should; and, irrespective of all personal questions, we could greatly desire to see a greater admixture of ranks in the General Medical Council, whi is at present composed too exclusively, for its own strength and representative for of consulting practitioners.

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Silver Medal and Special Vote of Approbation, Naval Medical Congress.

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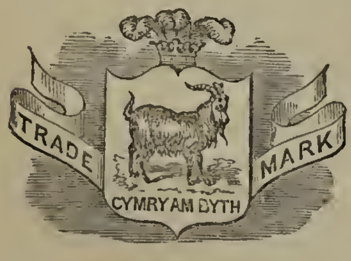

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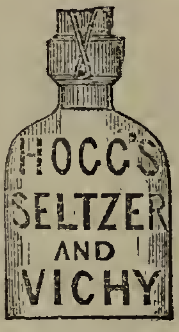

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REMARKS
ON
THE DIAGNOSIS OF DYSPNŒA.*

By HYDE SALTER, M.D., F.R.S.,
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In a course of Lectures which I had the honour of delivering before the College of Physicians, in 1865, I directed attention to the diagnosis of the various forms of Dyspnœa by the perturbations of the respiratory movements and rhythm characteristic of those different dyspnœas. But my observations were exclusively directed to the *movements* of respiration, and to the diagnostic value of the perversions of those movements as exhibited in these cases. I did not consider the many other characteristics by which the various forms of dyspnœa are distinguishable from each other, or the surrounding conditions which contribute to the diagnosis. I now propose to supplement what I then said, and to consider the subject of the Diagnosis of Dyspnœa as a whole, in all its bearings, in relation not only to movement but to all other attendant circumstances.

No more important subject, in my opinion, can engage the attention of the physician. The number of diseased states capable of giving rise to dyspnœa is so great, and of such various and even opposite kinds, that not even the first step can be taken towards assessing the value of dyspnœa in any given case, unless the diagnostic features of its different forms are previously known, and the immense variety of conditions under which it may occur are recognised. I believe that there are comparatively few diseases in which respiration is not in some way disturbed, and displaced from its normal standard. Besides the two great groups of diseases, those of the respiratory and those of the circulatory organs, in which respiration is primarily and necessarily affected; there are two other great groups, diseases depending on states of blood-poison and diseases of the nervous system, in very few of which I believe is respiration unaffected and in a perfectly natural state. Then, again, in how many abdominal diseases is breathing disturbed, as, for example, in peritonitis and abdominal tumours. Then again take the one, wide, multiform symptom of pain; I believe no severe pain can exist without affecting the respiration. Then again in how many forms of surgical injury is respiration affected. Taking the word dyspnœa in its widest sense—that of any perturbation of respiration whether attended with suffering or not—I think I shall be able to show that there is no symptom of wider range; as I hope I shall also, that there is none that presents more varied features, or offers clearer indications for precise diagnosis.

The first dyspnœa to the rules for whose diagnosis I will direct attention, as being the most typical and purest of all dyspnœas, is that of asthma. In most other diseases characterised by dyspnœa, the dyspnœa takes its place by the side of the other symptoms, but in asthma dyspnœa is the one constituent symptom.

In considering the diagnosis of the dyspnœa of asthma I shall necessarily say a good deal of those other forms of dyspnœa from which it is to be distinguished, and therefore shall be almost as much considering the characteristics and diagnosis of them, as of the dyspnœa immediately under consideration.

It might perhaps be thought that a disease whose clinical features are so peculiar, and so strongly marked as those of asthma, would be one about whose diagnosis no doubt could be felt. But in actual fact we find that this is not the case—that very often cases of true asthma are considered cardiac or bronchitic, and, still oftener, that cases are set down as asthmatic into which true asthma in no degree enters. I believe there are three causes for this:—One, that by many practising our art the landmarks of asthma do not appear to be recognised; they do not seem to have in their minds any fixed ideas as to its essential and non-essential features. Another, that we meet with not a few cases in which, with all our care, the diagnosis is really difficult. Another, that into many cases not primarily and substantially asthmatic, asthma to a certain degree enters, and thus, though they are not essentially cases of asthma, yet asthma is present. Seeing the asthma there the observer thinks there is nothing else, and assigns to this one cause the whole of the dyspnœa, the chief part of which, perhaps, is really due to heart mischief or bronchial inflammation; and thus the asthmatic element, correctly recognised, may obscure that to which it should have served as a guide. It may be thought perhaps that I am not likely to be an impartial witness on such a subject; but if I were to express my sincere opinion I should say, that I know no disease about whose diagnosis more uncertainty prevails, in actual fact, than asthma. I could hardly perhaps give stronger evidence of this, and of the necessity of laying down some clear landmarks for its recognition, than the fact, that I remember hearing, at a meeting of a learned medical society, an intelligent member say, that he thought the word "asthma" useless and superfluous, and that it would be much better to substitute the word dyspnœa for it—that the two things were one and the same.

In illustration of this uncertainty which prevails with regard to the diagnosis of asthma, let me mention two or three cases that have lately occurred in my own practice.

Early in October I was called to one of the suburbs of London to see a lady who was supposed to be suffering from asthma. Her medical attendant had told her so, and that it was a complaint for which medical men could do nothing. He had advised her to smoke stramonium and mild tobacco. I found the poor lady in bed with rattling dyspnœa, constant cough, purulent expectoration, soreness of the chest and between the shoulders, and that the attack was produced by exposure to cold and ushered in by all the symptoms of catarrh. On auscultating the chest large and small moist sounds were audible everywhere. What more could be wanted to complete a picture of bronchitis? That a certain portion of her dyspnœa was due to spasmodic narrowing of the bronchial tubes I have no doubt, because I have no doubt that such is the case in the early stage of almost all cases of bronchitis; because an inflamed bronchial tube is an irritable bronchial tube, and an irritable bronchial tube is a bronchial tube prone to contract. The asthmatic element of the dyspnœa existed not because the case was not one of bronchitis, but because it *was* one of bronchitis; and as bronchitis it should have been treated. The subsequent history of the case fully bore out the first impression—that it was a case of bronchitis pure and simple.

On the other hand, I have this day seen a lady who has for four years past been liable to occasional attacks of violent nocturnal dyspnœa. These attacks are most prone to come on when she goes to a new air, or when she is guilty of any imprudence in diet, such as eating a supper. On the first night of her going to Harrogate she was attacked, on the first night of her going to Croft, in Yorkshire, she was attacked, and six weeks ago, on the first night of her coming to London she was attacked, and she has suffered from the difficulty of breathing at night almost ever since. The medical man who was called in to see her pronounced the attack to be one of "bronchitis bordering on asthma"; and yet there was every symptom of pure asthma and not a symptom of bronchitis. Will bronchitis come on on each occasion of change of air? Will a supper produce bronchitis? No cold was caught at the commencement of her illness, there was no soreness of the chest, no cough, and, until the asthma had existed many nights, no expectoration. And yet the case was pronounced bronchitis! Probably, if this poor lady had been at once sent away from London her "bronchitis" would have immediately left her.

There are three common sources of dyspnœa with which asthma is more likely to be confounded than any others—bronchitis, emphysema, and heart disease—all others being comparatively infrequent. The diagnosis of asthma then is, practically, its diagnosis from these three diseases.

The form of dyspnœa that comes the nearest to that of asthma, and whose diagnosis, therefore, from asthma requires the greatest care, is doubtless, the dyspnœa of heart-disease. The two resemble one another in many points:—in both the dyspnœa is paroxysmal, in both it is intense and violent in its character, in both the night is the time for its principal occurrence, in both the recumbent position is intolerable and the erect position enforced, in both the distress is aggravated by exertion, and the patient fixed and unable to move. On the other hand there are many points in which they differ, and it is by seizing on these that we are able to diagnose the one condition from the other, and to neutralise, so to speak, their many points of resemblance. These points of difference may be thus comparatively represented.

IN HEART DISEASE.	IN ASTHMA.
The paroxysms are of a few minutes' duration.	The paroxysms may last for hours or even days.
The dyspnœa is of a gasping, panting kind, rather a breathlessness than a difficulty of breathing.	The breathing is tight, constricted and difficult.
The respiration is hurried, the movement deep, and the rhythm not changed.	The respiration is often slow, the movements superficial, and the expiration prolonged.

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* Read in the Medical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

The patient feels as if dying.	However difficult the breathing the patient feels there is no danger.
There are commonly no bronchial *râles*.	The breathing is accompanied with prolonged, sibilant and musical rhonchus, especially at expiration.
Exertion in tranquil breathing is an adequate immediate cause of a paroxysm.	Exertion alone will not immediately produce a paroxysm in tranquil breathing.
The paroxysm is not followed by expectoration.	Each paroxysm, as a rule, passes off with an access of expectoration.
The tendency of emotional excitement is to induce a paroxysm.	The tendency of emotional excitement is curative; often completely and suddenly.
No true periodicity.	Periodicity often well marked.

In some other points too, not easily expressed tabularly, the symptoms of the two diseases differ. In the paroxysm of cardiac dyspnœa the sufferer often leaps from his bed, and finds himself standing on the floor, or at the window, open-eyed and gasping for breath, almost before he is awake. In asthma, the patient is either unable to move from his bed at all, or slowly creeps to his fire-place, to light his fire, leaning on one piece of furniture after another as he creeps along. In both the diseases the dyspnœa is worse after food, but in asthma this depends mainly on the quality of the food, while in heart-disease I think it depends mainly on the quantity. There are many things that the asthmatic dare not take without the certainty of bringing on an attack, but there are no articles of diet, that I know of, that have an especial tendency to induce dyspnœa of cardiac origin. There is a difference, too, in the time after taking food that the difficulty of breathing comes on; in heart disease it is immediately after the meal; in asthma it is commonly about two hours after eating, when the results of digestion are entering the circulation. Again, with regard to frequency of the attacks the two dyspnœas differ; in cardiac dyspnœa there is no limit to the frequency with which the paroxysms may appear—the patient may have fifty of them in a night; in asthma the rule is to have only one, rarely two, almost never more, while once a week and once a month are common frequencies; and the having of one attack seems of itself to secure an immunity for a certain interval afterwards.

It may be thought strange perhaps, that I should not insist on the presence or absence of the physical signs of heart disease as a means of diagnosis between dyspnœa of cardiac origin and dyspnœa truly asthmatic. But, in truth, this is a most fallacious ground of diagnosis; it fails in both ways. On the one hand, in cases of dyspnœa clearly cardiac, there are often no physical signs of heart-disease; and, on the other, in cases of true asthma, the physical signs of heart-disease may be present. Cases of the former kind are of such frequent occurrence that I need not cite any examples; a large number of cases of that curious affection, *angina pectoris*, are of this kind—the dyspnœa is clearly cardiac, but there may be no physical signs of disease whatever. Of the latter kind I may relate a case that has occurred in my practice in the last few weeks.

A. B., aged 27, married, was advised to consult me by her medical attendant, who reported her case as one of asthma. On going to see her I found a pallid, delicate looking young woman, and ascertained that the one symptom of which she complained was, that whenever she lay down at night she was seized with a difficulty of breathing that obliged her to sit up again, or even to get out of bed. A renewal of the attempt to lie down usually brought on a renewal of the dyspnœa, which was of the most intense and violent kind. And so she passed her nights, entirely losing her rest, and becoming day by day more fatigued and worn out. During the day her breathing was easy. Now, having got so far, I felt that the case was one that would answer either to heart disease or to asthma, and I rather inclined to the dyspnœa being cardiac from the immediateness with which it followed the attempts to assume the recumbent posture. I found the pulse small and frequent, and, on applying the stethoscope over the apex of the heart discovered a loud systolic murmur. "Here then," I thought, "is the explanation of the whole thing; the case is not asthma at all, the dyspnœa is cardiac." But the prosecution of my inquiries elicited two more facts: one, that the dyspnœa was accompanied with multitudinous musical wheezing, and the other, that each attack passed off with a bout of expectoration, the patient not spitting at any other time. Now these two things I felt to be incompatible with anything else but asthma. There was, then, asthmatic dyspnœa present although the heart was undoubtedly diseased. They probably, I may say, perhaps, *certainly*, stood in the relation to each other of cause and effect, and the case might be correctly called one of cardiac asthma—a name often misapplied, and given to cases in which not only the cause but the form of the dyspnœa is cardiac, and from which all trace of asthma is absent. But what this case shows is, that the positive signs of heart-disease do not negate the presence of asthma.

I do not know that many words are necessary in comment on the foregoing table; a few, however, may perhaps elucidate more clearly what it is meant to convey.

The paroxysms of cardiac dyspnœa that has an organic basis never, I think, last more than a few minutes;* whereas, I am sure I am not exaggerating when I say that an asthmatic paroxysm may be unbroken for weeks. At the time I am writing this, I am attending the case of a gentleman, at whose best estate, for the last two months, we should any of us think ourselves under grievous asthma.

Intensity of dyspnœa united with indefinite prolongation of life, is a circumstance in which asthma stands strongly contrasted with heart disease, and indeed with bronchitis as well. We see asthmatic patients going on year after year in direful suffering, and yet hardly differing from what they were at first. One feels almost as if they possessed some antidote, or elixir, by which the results of so grave a disturbance of a vital function were arrested—as if pathological laws must be suspended in their favour. How different would be our views of the future, and how different in fact do we find the result, if the same amount of dyspnœa is due to organic heart disease. We know that a patient suffering from cardiac dyspnœa, comparable in its intensity to severe asthma, is a man whose remaining term of life is to be measured by days, or, at most, by weeks.

Another circumstance, allied to this, which has often struck me in contrasting the results of heart-disease and asthma, is the little tendency the latter has to generate dropsy. I believe that until it has given rise to dilatation of the right side of the heart it has no tendency or power whatever to produce this result. I have often been astonished that the patient could go on so long with all the signs of impeded circulation through the lungs—the congested face, cyanosis, small pulse, and even hæmoptysis—and yet not a trace of dropsy appear. That the pulmonary circulation is very greatly obstructed in such cases is quite certain; and yet I have gone on, week after week, asking if the feet were not swollen, and uniformly met with a negative answer, till I have been tired of asking. This is a difference that equally exists between asthma and bronchitis. Give me six months dyspnœa from bronchitis, comparable to the dyspnœa of asthma, and I will undertake to say that the patient's feet will be swollen. Now, why should there be this difference? I must confess myself somewhat puzzled to say. I can quite understand why there should be no dropsy in cases of asthma where there are considerable intervals between the paroxysms, and where the breathing in these intervals is normal; because, in these cases there is time for recovery, and the results of the dyspnœa are not cumulative, but each attack starts, as it were, *de novo*, and therefore the dyspnœa is, so to speak, always of recent origin; and dropsy is never the result of recent dyspnœa. But why severe asthma of months' duration, with very imperfect remissions, should not generate dropsy, as well as bronchitis, or disease of the heart—that is the puzzle. Nevertheless, such is the fact.

In no way, I think, is the contrast between cardiac dyspnœa and asthma more strikingly shown than by the inspection and auscultation of the chest. Two things immediately strike one. First, that while in asthma the chest is tied and the parietes immovable in spite of the most violent efforts, in cardiac dyspnœa the range of the respiratory movements is free and wide. Secondly, that while in asthma the respiratory murmur is nearly or quite suppressed, in cardiac dyspnœa it is unusually loud and clear—puerile, in fact. And indeed, it is a very curious thing to contemplate in cases of heart-disease, this perfect freedom of respiratory movement and free access of air to the functioning portion of the lungs coexisting with unrelieved dyspnœa. It clearly shows one thing—that the free supply of air is not all that is necessary for tranquil breathing; that the supply and renovation of blood must be equally unimpeded, or dyspnœa will exist and be unrelieved in spite of the freest air-supply. And we see why it must be so. The *telos* of respiration is the oxidation and decarbonisation of the blood at the expense of the air; and if this is not attained dyspnœa is the result. Now it is evident, that for this it is just as necessary that the blood should be supplied to the air, as the air to the blood. In asthma it is the renovation of the air that is impeded, in heart disease it is that of the blood; and in both dyspnœa is equally the result. This is the true secret of cardiac dyspnœa, and the reason of its coexistence with an air-supply perfectly free.

Although the dyspnœa of heart-disease is that which simulates asthma more closely than any other distinct dyspnœa, yet cases of heart disease are not so often confounded with asthma as are cases of bronchitis, and for these two reasons:—first, because with a great many people, especially in the lower and lower middle classes, bronchitis commonly goes by the name of asthma—an old man coughs and spits and wheezes, and tells you he is asthmatic. And secondly, because a great many cases of bronchitis are complicated with true asthma—bronchial spasm is an integral part of the condition; the patient has asthma not because he has not bronchitis *but* because he *has* bronchitis; his bronchial tubes contract *because* they are inflamed. The error, therefore, in such a case does not lie in the recognition of the asthma, but in the non-recognition of the bronchitis which is the immediate cause of the asthma, and the substantive disease.

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* I, of course, except that stage of heart-disease in which the dyspnœa is constant, and in which there cannot be said to be any paroxysms. And I also except those cases in which there is no organic basis, as in many cases of angina, in which the paroxysm may be very protracted, but in which it is rather a paroxysm of pain (an agony) than a paroxysm of dyspnœa.

The principal points of contrast between bronchitis and pure asthma are the following.

IN BRONCHITIS.	IN ASTHMA.
The typical sounds are moist.	The typical sounds are dry.
Cough is always present.	Often there is no cough.
The winter is the worst time of the year, often the only time.	The hot weather of summer and autumn is the worst time of the year.
Cause catarrhal.	Cause emotional, dietetic, and various.
Sputum more or less purulent.	Sputum, if any, non-purulent.
Severe dyspnœa never evanescent.	The severest paroxysm may come and go quickly and suddenly.
Often ends in dropsy.	If uncomplicated never produces dropsy.

If, in any case of chronic or recurrent difficult breathing, I feel a doubt as to whether the essential condition is bronchitis or asthma, the first question I put is—"Is your complaint a winter complaint?" If I get a negative answer, if I am told the season makes no difference, that it is as bad in summer as winter, the thing is settled—it is *not* bronchitis. If, on the other hand, I get an affirmative answer, I see strong reason to suspect that bronchitis is present, and if not uncomplicated, that is to say, if asthma is present as well, is at any rate the cause of the accompanying asthma. I then put these two additional questions:—"Is cough a constant and troublesome part of the attacks?" "Do you expectorate much, and is the sputum thick and yellow?" If these questions are answered in the affirmative, then, beyond all doubt, the case is one of bronchitis; if they are answered in the negative, then, I think, it is certain that it is not bronchitis; and the fact that the first question was answered in the affirmative—that the attacks of difficult breathing are confined to the winter—merely shows that atmospheric sources of irritation, such as cold air, damp, and fog, are the chief excitants of the asthma. I do not think that after these three questions any possible doubt can remain as to the presence or absence of bronchitis. As to the presence or absence of asthma (the presence of bronchitis being granted) a doubt may remain, and in the further prosecution of this inquiry I shall say a word or two presently.

As for the distinction of the difficulty of breathing due to asthma from that due to emphysema, I think (supposing each to be uncomplicated by the other) the three following points of contrast would always suffice.

IN EMPHYSEMA.	IN ASTHMA.
Respiration is never free.	Respiration may be perfectly free in intervals.
Drumminess of chest unvarying.	Chest only drumming at paroxysms.
Intercostal depressions effaced.	Intercostal depressions strongly marked, especially at each inspiring effort.

ON THE PATHOLOGY OF ILEUS.

By R. BEVERIDGE, M.B.,
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The subject of the Pathology of Ileus is one on which, from time to time, a good deal of difference of opinion has prevailed. On its general nature, all are agreed; namely, that it is a mechanical obstacle to the circulation of the blood in the intestine; but, while many describe it as proving fatal in the way of inflammation, others admit that it is not necessarily associated with this condition. In the following remarks, I wish to call attention to the appearances observed in cases of pure ileus, a satisfactory explanation of which must form the foundation of the genuine pathology of this disease; and, as it is only constant appearances that ought to be taken into account, it follows that if, in fatal cases of genuine ileus, inflammation can be shown to be wanting, then we must regard its occasional presence as non-essential, and look in some other direction for our explanation.

The immediate causes of ileus are various, although they all act mechanically, and produce the same symptoms and *post mortem* appearances. The most common are: strangulated hernia; internal strangulation of a loop of gut by its being constricted in an opening—as, for instance, one in the omentum, or in the mesentery, in the foramen of Winslow, etc.; a band tightly drawn across a portion of gut not in a loop; invagination, or intussusception. The following cases will show that the constant appearances in all these point to mechanical stoppage of the circulation; and that, therefore, inflammation, which, when it occurs, has generally some other apparent cause, is to be regarded as a mere casual accessory, and by no means as an essential feature of the disease. The distinctions between these two conditions would be the following. In inflammation, the gorging of the vessels would be greatest at the point where the mischief arose (*i.e.*, at the point of obstruction); and from that, as a centre, would radiate off in all directions, gradually passing into healthy parts, and it would be followed very speedily by effusion of inflammatory products, such as lymph and exudation corpuscles, or, if time permitted, of pus. Mechanical stoppage of the circulation, on the other hand, would produce much more intense loading of the vessels, a gorging, which would not radiate, but would pass in one direction only; namely, in that in which venous return was obstructed; and the effused materials would consist not of lymph, but of bloody serum, or blood itself; the condition terminating in gangrene, if time permitted. The presence of pain must not mislead us into supposing that, of necessity, inflammation is present; for, if the pressure of loaded vessels in the inflammatory state be sufficient to produce pain, much more ought the greater loading of them in mechanical stoppage of the circulation to give rise to the same symptom.

Observation i.—*Sudden Attack of Ileus; Death in Ten Hours; Band across the Ileum.*—J. C., male, aged 25, a stout, healthy-looking farm-servant, was towards evening, and some hours after having partaken of a heavy dinner, attacked with severe twisting pain of the abdomen, attended with vomiting, at first bilious, but finally stercoraceous. He had occasionally had similar attacks previously, which, however, had always passed speedily away, leaving him in good health. On this occasion, however, the symptoms persevered in spite of treatment; and he sank and died next morning, about ten hours after the attack.

On *post mortem* examination, the following appearances presented themselves. The abdomen was much distended, tympanitic; on opening it, the small intestines were seen to be much inflated and much congested. This congestion began about the middle of the jejunum; it was slight at first, but gradually increased in intensity in passing down the gut, until, near the end of the ileum, the intestinal coats were almost black. Across the ileum, a few inches above the cæcum, was tightly stretched a narrow firm band, attached above to the mesentery near its termination, and below to the inner side of the right iliac fossa close to the brim of the pelvis. This band was perfectly organised; in structure it was like the adjacent peritoneum; and presented no appearances indicative of recent formation. Immediately above it, the gut was abruptly bent upon itself, so as to double over the band and conceal it from view; and the loop of gut so formed presented the greatest appearance of congestion. At the point where the band crossed, the deep black injection of the gut, so conspicuous above, ceased abruptly, and the remainder of the intestine was empty, contracted, pale, and healthy. A little bloody serum was effused into the peritoneum; and the intestine, for some little distance above the band, contained clots of blood, but no trace of lymph or inflammatory exudation, either on its serous or mucous surface.

This case may be taken as an example of pure intense ileus, altogether uncomplicated; and its typical appearances may be put down as intense congestion, gradually increasing from above downwards to the point of obstruction, and there ceasing abruptly. The origin of such a band as here noted might be matter of interesting speculation. It could hardly have been an old inflammatory result, as, in such a case, a band of lymph would have been adherent throughout, or at any rate must have adhered to the intestine across which it passed; whereas, in this case, it was quite free, except at the ends. It is, in fact, difficult to understand its formation, unless it had been congenital—an explanation rendered very probable by the circumstance that symptoms similar to those of the fatal attack, but passing quickly away, had repeatedly shown themselves.

The following may be taken as a specimen of strangulation.

Observation ii.—*Sudden Attack of Ileus; Death in Twenty-two Hours; Internal Strangulation of a loop of Gut.*—A female, aged 43, was admitted into the Royal Infirmary, under Dr. Keith, June 22nd, 1865. She had been in good health till between two and three o'clock on the morning of admission, when she was suddenly attacked with pain and vomiting. The symptoms became more urgent as the day advanced; and, in spite of treatment, she sank and died at one o'clock on the morning of the 23rd, after an illness not exceeding twenty-two hours.

The following were the *post mortem* appearances. The abdomen was distended; there were four pints of bloody serum in the cavity of the peritoneum, but no lymph nor any appearance of inflammatory exudation. The stomach and small intestine, to within a foot of its termination, were distended with flatus. There was congestion of the small intestine, beginning about the end of the jejunum, and extending to within a foot of the cæcum, gradually becoming more and more intense until the point named, where it ceased abruptly; immediately above which point the colour was a deep purple. This was found to be caused by a narrow cord-like band, apparently a part of the lower right corner to the omentum, encircling tightly a loop of gut and mesentery, comprising a large part of the ileum; the last turn involved being abruptly twisted upon the constricting band. The last foot of the ileum (being the part beyond the stricture) and the great intestine were pale, healthy, and contracted.

Here, also, the same essential features presented themselves as in the last case. I have selected, as a specimen of this condition, a case of internal strangulation instead of strangulated hernia; because, in the former case, the symptoms pass on unchecked and unaltered to their fatal termination; whereas, in the latter, the appearances are materially modified by the operation, which may remove the condition of ileus to substitute (in fatal cases) peritonitis in its stead.

As a contrast to these, may be cited the following case of intussusception where, in addition to ileus, inflammation was present, depending, however, on another cause.

OBSERVATION III.—*Attack of Vomiting and Constipation, with Abdominal Tenderness; Death in Four Days; Intussusception, Perforation, Peritonitis.*—A male, aged 34, labouring under phthisis in its last stage, was attacked with vomiting and constipation; the abdomen was tender on pressure, but none of the symptoms were very urgent. He had been labouring under diarrhœa for some time previously, with occasional attacks of vomiting; the vomited matters being of a decidedly green colour, and containing sarcinæ in abundance. He gradually sank, and died in four days.

The following were the *post mortem* appearances. The abdomen was distended. The intestines were coated with freshly effused lymph, lying chiefly between the convolutions; the peritoneum was somewhat reddened. The jejunum and upper half of the ileum were much distended. About the middle of the ileum, was an invagination of about two feet of intestine, which was intensely congested, and contained coagulated grumous blood, which was also found in the lower part of the ileum. The congestion extended but a very short way up the gut, and not at all below; the lower part being pale and flaccid. In the jejunum, were numerous rather large ulcers scattered widely apart; the same appearance extending into the upper half of the ileum, but not into the lower. In the portion of gut forming the sheath to the invaginated part, a large ulcer had given way, causing perforation; but, from the blocking up of the interior by the invaginated gut, very little effusion of the contents had taken place.

Here the peculiar symptoms of ileus were by no means urgent, which corresponded to the small extent in length along the gut of the congestion found after death; and so, notwithstanding the access of peritonitis, doubtless set up by the perforation, and notwithstanding the weak condition of the patient, already broken down by phthisis and diarrhœa, death did not occur for four days.

From these cases—and others might be cited—it would appear that inflammation is no necessary or even frequent concomitant of ileus, certainly no necessary prelude to a fatal result; while the *post mortem* appearances point clearly to the mechanical stoppage of the circulation as the cause of death. These appearances are precisely identical with the phenomena produced by tight ligature of a limb, or of any portion of the body; the venous circulation is brought first and completely to a stand; thus throwing the blood back upon the capillaries and arteries, which last, not being so easily completely compressed, may continue for a short time to carry a little blood into the part. The gorged vessels endeavour to free themselves of their contents by the effusion of serum and blood, or of blood alone; but the stagnation still continuing, the whole circulation of the part comes permanently to a stand, and gangrene results. One point, however, in the state of parts in ileus, deserves especial notice. It is not alone the part actually strangulated that is loaded with blood; but this loading extends for a considerable distance upwards, as if the stoppage of the circulation affected not only the part directly implicated, but caused also an impediment to the circulation in the intestine for some distance above. When pressure is put upon a vein, we find that the blood is thrown back only on those parts drained by that vein; and it might, therefore, have been concluded *à priori* that, considering the large number of veins returning blood from the intestinal coats to the trunk of the superior mesenteric, the blocking of one of them would not necessarily have interfered with the circulation in its neighbours; but the above observations show that it does do so to a very considerable extent. This can scarcely be produced simply by the spreading of irritation, for, in that case, the parts below, as well those above, should have shared in it; and the only reasonable explanation that suggests itself is that, besides the current of venous blood returned direct, by the various small veins in the mesentery, into the trunk of the superior of mesenteric, the very free anastomosis by the side of the gut permits a steady downward flow of blood parallel to the intestine; the circulation being only finally balanced, as it were, when we near the termination of the great intestine. On such a supposition, it is easy to understand the appearances produced, as the blood would thus, in all cases, be thrown back on the parts above the stricture, gorging these, and leaving those below pale. If, however, this supposition be not admitted, why should not the congestion in Case I have been limited to the one or two veins actually compressed, instead of extending many feet upwards? Or why, in Case II, should the lowest part of the loop have been the most congested, instead of having this condition equally spread over the whole part included in the stricture? In this last case, the idea of the gravitation of the blood in the congested part having any share in the result is totally inadmissible, as the beginning and the end of the loop involved (being the parts least and most affected respectively) were on the same horizontal level; and the most dependent part, being the middle of the long loop, was not nearly so much affected as the part farther down the gut, although this last was above it in level. The great length of the loop in this case afforded a much better opportunity of tracing the actual condition of parts at different points, than does the short loop usually found in a hernial sac.

The idea of some such peculiarity in the intestinal circulation as that here supposed is, to a certain extent, borne out by what is seen in animals. If a small animal be killed, and the abdomen immediately opened, before the blood in the smaller vessels has ceased to circulate, and the mesentery be spread out under the microscope, the blood will be found still flowing there, although somewhat slowly, and the current will be found setting in all the smaller veins parallel to and down the line of the gut. From the foregoing observations in ileus, I consider it probable that this may also be the case in man; and, should this supposition prove correct, it would also explain the absence of valves in the veins of the alimentary canal.

OBSERVATIONS SUGGESTED BY THE STUDY OF CASES OF CATARACT EXTRACTION.*

By CHARLES TAYLOR, M.D.Edin., F.R.C.S.E.,
Honorary Surgeon to the Nottingham and Midland Eye Infirmary.

GRANTING that all the precautions which I have indicated be taken, there are, nevertheless, many cases where the eye would doubtless be lost through the attempt to secure too much; and there is abundant evidence to prove that the indiscriminate adoption of the most carefully managed flap would be fatal to many cases that are saved by either a combined or a preliminary iridectomy. Thus, Mooren, in his excellent paper on Extraction by a New Method (portions of which I translated in a former essay) demonstrated, at least to his own satisfaction, that the small portion of iris which corresponds to the flap, whichever section be employed, is the portion which first takes on inflammatory action, and is not only the cause of iritis and the minor sequelæ of such disaster, but is really the initiation of that series of changes which cause suppuration of the flap, and end in panophthalmitis and total loss of the eye-ball. He illustrates this observation by several interesting cases, which space will not permit my now quoting to you; but which tend to show that the bruising of the small segment of iris corresponding to the flap, caused by the passage of the lens, is the proximate cause of iritis, and that the inflammation so caused is followed by suppuration of the flap as a direct consequence. This important observation induced Mooren to excise a small portion of iris upwards or downwards, according to the position of the section, some weeks before extracting in the ordinary way. He was thus enabled to save several most unpromising cases; and I have verified the truth of his doctrine by the result of my own practice, as may be seen by several cases which I reported in the *Ophthalmic Review*. Unfortunately, the division of the operation of extraction into two parts was always a serious objection to Mooren's procedure, and at one time I endeavoured to overcome this by making an iridectomy through a very small incision, extracting, half an hour afterwards, in the ordinary way when the aqueous humour was re-secreted.

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* Concluded from page 570 of JOURNAL for November 28th, 1868.

Shortly afterwards, however, I operated upon an aged, feeble patient, who suffered from most severe paroxysms of asthma. The operation on the right eye was perfectly successful, and caused so little inconvenience that she was most desirous to have the left eye operated on. This I did; and, some time after I had left her, during a fit of dyspnœa and coughing, accompanied by a gush of aqueous humour and spasm of the lids, the flap was completely reflected; and, as she made no complaint, it remained unnoticed until the eye was opened on the fifth day. (The case is reported in the *Ophthalmic Review.*) This reflexion of the flap determined me to carry out more generally my linear flap method, and, if possible, to get rid of such a source of danger as was involved in an incision of such magnitude; and I therefore endeavoured to ascertain whether extraction might not be accomplished through a wound so small that there would be no risk in such manipulation of the eyeball as would be necessary to facilitate the various steps of the operation, and yet large enough to permit the exit of the lens without the introduction of any instrument into the eye, or consequent risk of those disastrous results which I had sometimes seen to follow the lifting out of the lens with Schuft's spoons. I was then satisfied that, with the enlarged pupil and extended surface for operation obtainable either by a combined or a preliminary iridectomy, the large flap was unnecessary; and that an extended flap-like incision, comprising little more than one-third of the corneal surface, if made well back in the corneo-sclerotic junction, would suffice for the ready exit of the lens, without the use of any traction-instrument. I found also that a wound flap-like in form yielded more readily to the advancing lens than one more strictly linear in its character; while it was still sufficiently slit-like to close without artificial apposition, strong enough to resist protrusion, and too resilient to permit accidental reflexion.

I may mention that I had fully worked out this method, and demonstrated its advantages, before I had heard of Professor von Gräfe's modification of linear extraction, and before any account of his experiments had been published. As you will perceive, however, from the diagrams, that the operations are essentially different, I need not say more on that score.

In my first operations, I used a ground-down cataract-knife, reduced to about the size of the secondary cataract-knives sold in most cases of ophthalmic instruments. Latterly, I have used Mr. Critchett's iriddesis and Dr. Bader's smallest sized iridectomy-knife; making an incision a few lines in extent at the summit of the cornea, withdrawing a portion of iris, and cutting it off; then incising the capsule, and enlarging the wound to the requisite extent to the left and the right with a similar knife with a blunt point, made for me by Mr. Coxeter. As the conjunctiva is only to a very slight extent implicated, there is usually very little trouble from hæmorrhage. Should it occur, however, it is well to arrest it by slight pressure applied through the medium of a pad of cotton-wool. Care must be taken to excise the iris freely at the angles of the incision, as small portions are very apt to prolapse in this situation. If the anterior chamber become filled with blood, it should be sucked out, and gentle pressure applied, so as to arrest the flow. The lens usually comes forward on the application of slight pressure to the globe, while the posterior lip of the wound is gently pushed back with the curette. Cortical fragments may be extruded by manipulation; but, if this do not suffice, it is advisable to suck them out, and to remove carefully any pieces of capsule that remain. Rest for a few days, with partial exclusion of light, is all the after-treatment required; and the great majority of patients may be discharged on the seventh day. I published a full description of this method in the *Edinburgh Medical Journal* for February last, and appended reports, with names and addresses, of fifty-four patients operated upon by myself in succession (without selection), in only one of which was the eye lost from suppuration of the flap; this occurred in a patient eighty-five years of age, who had been blind for twelve years, and suffered from shrunken and irritable globes.

I may mention that the operation I have described has practically, in this country at least, superseded both Schuft's and Von Gräfe's. The feeling that Von Gräfe's incision was too far back seems to have been very general. The bleeding from the wounded conjunctiva, often filling the anterior chamber, was a serious objection. The swollen and infiltrated conjunctival flap was a source of embarrassment in the subsequent steps of the operation; and the risk from loss of vitreous humour has always appeared to me very great. Schuft's method, or the extraction of the lens with a spoon through a small incision, was frequently attended with disastrous results. An eminent surgeon, on first trying it, lost two eyes in succession; and I knew another gentleman who had three failures one after another. Mooren, with this method, also lost ten eyes in thirty operations. Mr. Bowman and Mr. Critchett, however, brought the operation to great perfection, and published some excellent results; but they really now coax out the lens without passing any instrument into the eye, much after the method I recommended upwards of three years ago; so that Schuft's operation is practically abandoned, or used only in exceptional cases.

There are certain cases of cataract in which, whether from their diffuse form or immaturity, or from unusual activity of the intracapsular cells, it is impossible to avoid the formation of secondary cataract, if the capsule be not removed at the time of extraction, however clear the pupil may appear after removal of the lens. Thus, in patients blind from fully formed cataract in one eye, with the other failing, the operation on the first eye is often at once successful; while a secondary cataract supervenes when the best eye is operated on. In these cases, it is necessary to extract the lens with the capsule entire, in order to escape the annoyance of secondary cataract and protracted recovery. Pagenstecher, who has extensively adopted this method in all manner of cases, has secured most excellent results, both as to the progress of the case and ultimate acuteness of vision. He uses a full sized Beer's knife, entered in the sclerotic at the transverse meridian of the cornea; and makes a large flap downwards. The knife, being entered and emerging in the sclerotic, leaves a conjunctival band after the division of the harder tissues is completed. This band he leaves until a large piece of iris has been withdrawn and excised. He then snips it across with scissors, and endeavours to extrude the lens by pressure; failing which, a large spoon is slipped behind it, and it is withdrawn. The hyaloid membrane is, of course, very apt to be ruptured during the progress of these manœuvres; and it is, therefore, necessary to avoid even the slightest pressure on the eyeball. Hence Pagenstecher never permits the eye to be fixed in any way, either with forceps or fingers. He gives chloroform very fully; and, as the eye is always, during anæsthesia, turned completely upwards, the lower section is the only one that can be used. This is the great point in his operation, and one that I have not seen before alluded to. It is a singular fact that, disastrous as have been, in many instances, the results of inserting the spoon into the eye when the capsule has been opened and portions of membrane and lens-matter left behind, it is very innocuous when the lens and capsule are removed by it entire.

Pagenstecher's operation leaves a large slit in the lower and most exposed portion of the iris, all to one side, which is extremely objectionable; and the wound appears to me unnecessarily large. The intervention of the couch and body of the patient makes it difficult sometimes to operate from below. Pressure is very apt to rupture the hyaloid; and, in the absence of all fixation, the proper introduction of the spoon and withdrawal of the lens is sometimes attended with difficulty. In adopting his principle, therefore, I have abandoned all intention of squeezing out the lens, and determine to adopt my own form of incision, slightly enlarged, and, indeed, carrying out each step of the operation precisely the same as in my linear flap method, with the exception of the laceration of the capsule. Having performed iridectomy and enlarged the wound, I seize the eye with forceps at its lower margin, and make slight pressure, so that the lens is inclined forwards, and in a favourable position for the introduction of the spoon; this I then slip behind, and extract the whole entire, supporting the cornea with one finger. Such cases, as a rule, do remarkably well, give very little anxiety afterwards; and the results as to vision, as I shall show you, are excellent. The operation is not admissible in young people, in whom the capsule and suspensory ligament are remarkably tough, so much so that any attempt to remove them entire drags on the ciliary processes with disastrous results, and may even detach the retina. It is not necessary to run the increased risks of loss of vitreous humour, etc., which this operation involves in fully mature cataracts occurring in aged persons; but it is a great boon in those cases of immaturity, degeneration, or diffuse glutinous cataracts, where experience tells us that opening of the capsule will be followed by exudation, proliferation, and blocking up of the pupil by secondary cataracts. The large wire spoon, which I had made for this purpose, answers admirably; and, as it occupies less space than any other, the risk from pressure is considerably diminished.

Space will not permit any allusion to soft or other forms of cataract. I shall, therefore, merely conclude by thanking you for your kind attention to a subject which, I fear, is too special to interest many present.

[The paper was illustrated by diagrams showing the various methods of extracting; and, at its close, several patients who had undergone double extraction (some evidently, from great age and marasmus, most unfavourable subjects) were introduced in illustration of the author's views.]

NOTES ON THE PRACTICE OF THE LONDON FEMALE LOCK HOSPITAL.

By JAMES R. LANE, F.R.C.S.,
Senior Surgeon to the Lock, and Surgeon to St. Mary's Hospital.

Uterine and Vaginal Discharges.

SINCE the admission of patients into this hospital, under the Contagious Diseases Act, from Woolwich and other military districts, the treatment of uterine and vaginal discharges has constituted a large part of its practice. In fact, in 1867, as many as 58 per cent., and in 1868, 65 per cent. of the class of patients alluded to, were placed under treatment for this form of disease alone, uncomplicated by any symptom of a syphilitic character, either primary or secondary. These patients are, for the most part, strong healthy girls, aged from 17 to 25, well fed and in good condition. Their disease appears to be entirely local, both in its origin and character. It arises, as I believe, in the great majority of cases, simply from the continual irritation and excitement of the generative organs consequent upon their mode of life, though it may be caused, no doubt, occasionally by direct contagion from urethral discharges in the male. The secretion, when they first come under observation, is of an obviously purulent or muco-purulent character, and evidence of its contagiousness is afforded by the fact (as I am informed) that nearly all of them have been accused of communicating disease before being subjected to examination. It is remarkable how little pain or inconvenience is suffered by these patients; usually they make no complaint whatever, and many of them are unaware that any thing whatever is the matter with them, although, when examined with the speculum, a profuse discharge, derived chiefly from the uterus, is found lodged in the upper part of the vagina. Associated with this, especially in the more chronic cases, abrasions of the epithelium, excoriations, or superficial ulcerations on the vaginal portion of the cervix uteri are very frequently seen. Anything approaching to an inflammatory condition, to which the terms acute gonorrhœa or vaginitis might be applied, is uncommon, and when met with, it is usually in young girls, as yet unseasoned to a life of prostitution. Incidental complications, of a painful character, such as labial abscess, or inflammatory bubo, are occasionally seen, but are not of frequent occurrence.

An external examination alone is quite insufficient for the discovery of these complaints. Purulent secretions from the vulva or lower part of the vagina are, of course, evident enough; but a profuse uterine discharge may be present, and no trace of it be visible until the speculum is employed. There is, however, a considerable difference in women in this respect; in some, the vagina appears to be equally contractile throughout its whole length, and therefore, any secretion formed in it, or entering it, speedily appears externally; while in others, and these are the majority, its contractility is much less at the upper than at the lower part, and discharges are consequently retained in the former situation.

When these discharges are of purely local origin, and there is no constitutional fault, their cure may be speedily effected by local applications. The plan commonly pursued at the Lock Hospital is to make the patients use vaginal injections for themselves three or four times daily. The lotions employed are the diluted liquor plumbi subacetatis, or solutions of sulphate of zinc, alum, or tannin, in the proportion of five grains to the ounce of water. The syringes are large enough to hold six ounces of the lotion, and have a pipe long enough to reach the upper part of the vagina readily. Both these points are important, for the syringes commonly used will not contain sufficient fluid to wash out the canal effectually, and the pipe affixed to them will not admit of its reaching the upper part of the vagina at all. When the vaginal mucous membrane is inflamed and tender, the house-surgeon, when the speculum is used, which is at least twice a week in all these cases, inserts a strip of lint dipped in the lead-lotion, and this is allowed to remain for three or four hours. If the inflammation be acute, the application of the strip of lint is repeated daily through a small speculum. By these means, discharges proceeding from the *vagina* may usually be cured in a few days, but the injections should be continued as long as any abnormal uterine secretions are observed, for the latter, if not frequently washed away, will be likely to re-excite disease in the vaginal mucous membrane.

But vaginal injections are of little or no use for the cure of discharges proceeding from the interior of the cervix uteri—a complication which is almost invariably present in these cases. In the treatment of this condition, success will depend mainly on the amount of personal care and attention afforded by the surgeon himself. At the Lock Hospital, the speculum is used twice a week in all, and three times a week in many, of these cases; and through it suitable applications are made to the os and cervix. The nitrate of silver, either solid or in solution, is the remedy most in favour, especially in the earlier stages of the treatment, and when the discharge is purulent; later, simple astringents, such as tannin, alum, or perchloride of iron, are employed. Before using the caustic, all discharge should be wiped away from the os uteri with a piece of dry cotton-wool; and the plug of tenacious matter, which usually fills the cervix, should also be removed, or it will prevent the remedy reaching the diseased surface. The application of a strong solution of alum coagulates this discharge, and renders its removal more easy. The stick of nitrate of silver is then inserted to the depth of about an inch into the canal of the cervix, and is also applied to any abraded or ulcerated surface which may be seen around the os; or, instead of the stick, a solution of the nitrate (a drachm to an ounce of water) may be applied by means of a piece of sponge or cotton wool about the size of a pea, which is passed along the cervical canal with a suitable pair of forceps. I prefer to use the solid nitrate on the first one or two occasions, and afterwards the solution. By these means, the discharge speedily loses its yellow colour, and becomes white or semi-transparent. When this result is obtained, astringent solutions, such as the milder liquor ferri perchloridi of the *British Pharmacopœia*, or solutions of alum or tannin (a drachm to an ounce of water), may be substituted with advantage for the nitrate of silver. The glycerinum acidi tannici, or acidi gallici, are also frequently used; but they do not appear to possess any advantage over the watery solutions.

Other methods of applying remedies to the interior of the cervix uteri have been tried, but the plan above described has been found most convenient and effectual. A very efficient mode is to inject the solutions into the cervix with a syringe; but this has the disadvantage of being sometimes followed by abdominal pains—no doubt, from the fluid penetrating too far into the body of the uterus. I have also used suppositories containing nitrate of silver, sulphate of copper, or alum, incorporated with cocoa-butter, in the proportion, by weight, of one part to four or five, and made into pencils of appropriate size for introduction into the cervix uteri. These answer well enough; but, on the whole, I am disposed to prefer aqueous to greasy applications. The essential point, whatever the substance or solution chosen, is to take care that it is effectually applied along the whole length of the canal of the cervix uteri. There is rarely any pain occasioned by the use of caustics or astringents to these parts. The patients are almost invariably quite unconscious that anything is being done.

In 1867, the number of admissions for this form of disease was 414, and the average period occupied by the treatment was twenty-three days; but 36 per cent. were cured in periods of from seven to fifteen days, 21 per cent. in from fifteen to twenty days, and 13 per cent. in from twenty to twenty-five days. The remaining 30 per cent. occupied periods exceeding twenty-five days, the longest being ninety-four days. Many of these latter, however, were suffering from some constitutional condition which may be held accountable for the delay, such as phthisis or some other form of strumous disease, or impairment of health from long continued habits of dissipation.

Readmissions for a recurrence of this form of disease are unfortunately too frequent. The 414 *cases* alluded to do not, therefore, represent an equal number of patients; for fifteen women were admitted twice, and four three times, during the year. In fact, as many as eighty-four had been in the hospital previously, some of them as often as six or seven times since October 1866. When discharged, a large proportion return to habits of prostitution; and, as might be expected, after a time relapse into the same condition. We seldom see them again, however, till after a lapse of several months; so it may fairly be inferred that they remain in a sound state for a considerable period.

The above remarks are founded upon, and refer especially to, cases of *simple* utero-vaginal discharge, in which, as far as can be discovered, no syphilitic taint is present. These, of course, are only capable of communicating a simple urethritis or gonorrhœa. Women suffering from constitutional syphilis are, however, very often affected with uterine discharges and ulcerations. Such cases are much less amenable to local treatment; and appropriate constitutional remedies must, of course, be employed at the same time. In my opinion, the uterine ulceration so often concurrent with secondary syphilis is as much a secondary manifestation as mucous tubercles on the vulva, or the analogous condition so often met with on the mucous membrane of the mouth and throat; and its secretion is equally capable of communicating true syphilitic infection.

For the efficient carrying out of the plan of local treatment which I have delineated, which entails the expenditure of a great deal of time and trouble, great credit is due to the late house-surgeon, Dr. Barr (now in charge of the Government Lock Hospital at Aldershot), and to his successor, Mr. F. J. Marshall, both of whom have performed their laborious and somewhat irksome duties in the most painstaking and careful manner.

REVIEWS AND NOTICES.

The Pathology and Treatment of Syphilis, Chancroid Ulcers, and their Combinations. By John K. Barton, M.D.Dub., F.R.C.S.I., Surgeon to the Adelaide Hospital, etc. Dublin: Fannin and Co, 1868.

The names of Colles and Carmichael have been so long identified with the Dublin School in connection with the treatment of syphilis, that of late years few have ventured to walk over the ground which they so ably trod in days gone by. Dr. Barton, however, having been for many years convinced, as he states in his preface, that a book on Syphilis, which would meet the requirements of the student, was much needed, comes before the profession with a well got up octavo volume of 316 pages.

The book before us consists of eleven chapters, of the contents of which the following may be taken as a concise summary: 1. Introduction: Varieties of Venereal Disease; 2. The Simple Venereal Ulcer, Soft Sore, or Chancroid Ulcer; 3, Complications of the Simple Venereal Ulcer, or Chancroid Sore; 4. Natural History and Pathology of Syphilis; 5. First Stage, Indurated or Syphilitic Chancre; 6. Second Stage; 7. Third Stage, or Stage of Deposit; 8. Third Stage continued, Later Symptoms; 9. Treatment; 10. Treatment of Tertiary Lesions; 11. Hereditary and Infantile Syphilis. In this brief notice, we cannot give any general view of Dr. Barton's work; and we can only make a few remarks explanatory of his views in what we consider the best part of it, that relating to treatment.

Having, on page 222, concluded that the use of mercury is advisable in the first and second stages of syphilis, and having advocated its gradual introduction into the system, he considers the various methods employed for this purpose, and decides in favour of inunction. As regards the mercurial vapour-bath, specially advocated by Mr. Langston Parker and by Mr. Henry Lee, Dr. Barton objects to its uncertain character: "Sometimes salivation was produced rapidly and severely; and again, no effect seemed to follow the treatment." Notwithstanding this objection, however, and another raised by Dr. Robert McDonnell—"that no absorption whatever takes place of the sublimed calomel through the skin, and that the action of the medicine depends altogether upon the vapour being breathed by the patient"—Dr. Barton urges that there are cases belonging to the tertiary stage "to which the mercurial vapour-bath is admirably suited, as an adjunct to other treatment."

Dr. Barton's book is practical, written in good plain English, most likely to serve medical students, and practitioners also, and bears no trace whatever of mere book-making and puffing preconceived theories, or riding medical hobbies. When a Dublin surgeon of his reputation and experience puts his name to any professional treatise, we have a right to expect that his work will fully accord therewith. When we say that, in our opinion, it is a credit to the Dublin School of Surgery, we only assert a view in which those of our readers who are acquainted with the subject will fully coincide.

First Principles of Modern Chemistry. By U. J. Kay-Shuttleworth. London: Churchill, 1868.

This is a text-book on Heat and Chemistry, well adapted to meet the wants of those preparing to matriculate in the London University. After the principles of heat have been set forth, the properties of the chief non-metallic elements and their compounds are described, and their chemical reactions fully explained by symbolic representations. Heat is treated as "a mode of motion"; and the writer has managed to give, in twenty pages, an excellent little treatise on this subject, excepting, we think, where it dwells upon the distinctions between heat and temperature. Between the chapters on the Chemical History of the Bodies Considered, two or three on General Principles are inserted, which give an intelligible account of Atomic Weights and Volumes, Equivalence or Atomicity, Notation, Nomenclature, and Classification. The introductory chapter would have been much better, if the author had brought the distinctive characters of chemical phenomena before the student, rather than those of chemical "force" or "affinity", because chemistry, like all other sciences, is the study of a certain class of *facts* or *phenomena*; because the notion of *force* held by philosophers can hardly be comprehended until some knowledge of the facts it concerns has been acquired; because the notion of *chemical* force or *affinity* in particular is, to say the least, a very misty one, with hardly any apparent foundation on fact; and lastly, that this notion is of very doubtful assistance in the study of chemistry. And, therefore, we except the first few pages of Mr. Kay-Shuttleworth's book when we praise it as an expository treatise. In the descriptive part of the work, we cannot characterise as other than a surprising blunder, the statement that, in preparing hydrogen from steam by iron, the excess of steam is to be removed by calcic chloride, *before being collected over water*; for the water and heat of the steam would rapidly melt the calcic chloride in the drying-tubes, and, after all, the hydrogen is no dryer after bubbling through the water in the trough than if it had never been dried at all.

A Manual of Inorganic Chemistry. By Chas. W. Eliot and Frank H. Storer, Professors of Chemistry in the Massachusetts Institute of Technology. Second Edition. London: Van Voorst, 1868.

For the most part, this is an excellent elementary treatise for the student. The authors show all along the desire to explain, and not merely to enunciate, the principles of chemistry, and to base their explanations on experiments, for the performance of which by the student they give full directions. We venture to suggest, however, that they might, in several cases, easily revise their treatment of their subject with advantage. For example, we consider the terms "atom" and "molecule" are introduced too soon (p. 29); for no facts have been described at the time of their first employment which suggest the use of them. They are treated, too, in a difficult manner, and in a way which cannot satisfy the thoughtful student. The treatment of *solution* and *chemical action* is not very philosophical. The term "acid" is not defined; and the highest oxide of nitrogen and the hydride of chlorine are both called acids, without any attempt to defend such inconsistency. The authors demonstrate, as they think, in one place, that nitric acid is a compound of water; and yet, in another place, they regard it (according to present usage) as not being so. The difficulties they find, too, in determining the formula of this acid are surely not real. The descriptions of the properties of bodies are usually accurate; but there is one imperfect description of some interest at the present time in the case of the protoxide of nitrogen. The authors state that it contains nearly twice as much oxygen as atmospheric air; whereas it yields two and a half times as much oxygen as air—a hundred cubic feet of air containing only twenty of oxygen, while a hundred cubic feet of the protoxide yield fifty of oxygen. Their statement would be true, taking equal weights; but, as it is made in order to explain why nitrous oxide supports combustion so well, volumes only can be meant.

On the Wasting Diseases of Infants and Children. By Eustace Smith, M.D.Lond.; Member of the Royal College of Physicians; Physician Extraordinary to His Majesty the King of the Belgians; Physician to the North-West London Free Dispensary for Sick Children, and to the Metropolitan Dispensary. Pp. 261. London: James Walton. 1868.

In this small volume, the author groups together the various affections that entail, as a common result, the production of a condition which is generally somewhat vaguely spoken of as one of "marasmus", "tabes", or "atrophy". The condition itself, amongst infants and young children, more especially in our crowded cities and towns, is one of the greatest frequency, obtruding itself upon the busy practitioner at every turn; and we feel assured that the careful and judicious way in which Dr. Eustace Smith has treated his subject will ensure its favourable reception as a most useful and valuable contribution to our medical literature. The author assigns as his reason for grouping these affections, that "he had not long begun the study of children's diseases, before he found that even the best systematic treatises dealt but imperfectly with the clinical condition of chronic wasting, and did not consider together, in the way required for every-day use in practice, the various disorders to which it may be due." After some general introductory remarks of a practical character, Dr. Smith treats, in successive chapters, of the various forms of Chronic Wasting, resulting from Insufficient Nourishment, Chronic Diarrhœa, Chronic Vomiting, Rickets, Congenital Syphilis, Worms, Chronic Tuberculosis, Chronic Pulmonary Phthisis, Tuberculisation of Bronchial and of Mesenteric Glands. It would be impossible now for us to follow Dr. Smith in his exposition of these various subjects; and, although we might differ from him in some matters of detail, we can most honestly recommend the volume as one full of valuable practical information, not only concerning the diseases of children of which it treats, but also as to their food and general hygienic management. The book is essentially clinical in its character; and, as the author observes, "he has limited himself to matters of direct practical significance, and has indulged little in considerations of a purely speculative kind" in the pathological department of his subject. Reference to the various parts of his work is greatly facilitated by a full table of contents for each chapter, and also a very complete index. The author has evidently spared no pains in order to make his book as useful as possible; and we have little doubt that it will soon be a work in the possession of a large majority of busy practitioners, who have not too much time for reading.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 5TH, 1868.

NURSING IN LONDON HOSPITALS.

The experience of recent years has induced medical men to attach increasing importance to skilled, conscientious, and attentive nursing; and it has been found necessary in most institutions critically to examine and frequently to largely reorganise the staff of nurses and modes of nursing. The plan which is now being most largely adopted is as follows: a lady superintendent is placed at the head of the establishment, who sees that the wards are properly nursed, and who is herself responsible to the hospital board for the efficiency of those under her. Other ladies, acting under the authority of the superintendent, have each two or more wards under their care, and are called sisters; each, without doing the heavy work, sees that the nurses are fully occupied, teaches the younger ones what they have to do, arranges about the diets under the direction of the resident medical officers, and informs him when anything is going on unsatisfactorily with the patients. By their education they are more intelligent than ordinary nurses, and their position tends to keep up a higher *morale* in the wards.

Each ward contains, or should contain, an experienced nurse; if very large the work may require two; as a general rule, when there are from twelve to twenty beds in a ward, one or two probationers assist in the hard work, and at the same time are learning to become nurses in the future. A proper establishment is thus always training up a number of recruits; and these, when sufficiently experienced, are placed in charge of a ward, or fill up vacancies as they occur.

This is the arrangement which is being carried out at the Middlesex Hospital, where a training college for nurses is being built to supply nurses in the first place solely for hospital use. Others, however, will, as far as possible, be sent out for private cases. The institution at St. John's House is on a wider scale, and nurses go from there to King's College and Charing Cross Hospitals, and private ones are sent out as well. But although under one head, the branches are quite distinct, and have nothing to do with each other.

At King's College Hospital the system is very complete, and we are told that it answers very well; the nurses are more liberally paid and better fed than in most other institutions. The expenses amount to about £1300 annually, while at Westminster Hospital, which contains more beds, the expenditure is not *half* the amount.* In each ward is a properly trained nurse, and under her one or two probationers; each day nurse comes on duty between eight and nine o'clock in the morning, after breakfast, and leaves at the same time in the evening, when a fresh set take their turn. Both day and night nurses sleep in the hospital, in a series of small rooms or dormitories opening into a common corridor, each has thus a separate bedroom. In one hospital, we are informed the day attendants sleep in the same beds that the night ones have just left, and three or four sleep in the same small room. All the nurses take their meals together in a common room at certain hours, and usually one or more sisters are present to superintend. No food is allowed to the nurses, except a little tea at night. Elsewhere we are told that the nurses are allowed a certain amount of food daily, which they cook and eat in the wards—a process disagreeable to themselves and the patients.

At St. George's Hospital, a lady has recently been appointed to preside over the nursing, who lives in the house, and receives a salary of £100 a year. She has the charge of the nurses—a work hitherto belonging to the matron. It has been a *sine quâ non* that this lady should be a practised nurse herself, and specially versed in surgical nursing.

There are two great and common evils among nurses. The first is neglect in carrying out the orders of the medical officer, or failure to inform him when any serious symptoms arise in a case. This is chiefly to be found, however, amongst the more ignorant class of nurses; and, as a better education prevails, it will in a great measure be eradicated. The second is the habit of intoxication. It is especially common to widows of middle age, and amongst those on night-duty. Often, the brandy meant for a fever-case is drunk by the dishonest attendant. The only way to deal with it is by immediate expulsion, as it is a habit which is never broken while the opportunity for exercising it remains; and it fosters a course of most injurious deception. It may in some degree be prevented by a sister going round at night; and in most hospitals that custom now prevails.

Nursing opens a sphere of usefulness to women which those who profess to be the champions of their sex do not sufficiently appreciate. The social position and the remuneration of nurses are both improving.

For the first year, the probationer usually receives nothing but her board; after that, she is usually paid about £20 a year, provided with food and rooms, and has some clothes given her, so that all may dress alike. A gradual rise then takes place in the salary up to £26; and, after a few years' service, they may receive a pension, if unable to work; or they may be able to nurse private cases, if not strong enough for a ward. In addition, there is a certain amount of liberty and independence, as they can walk out daily at certain hours; and their mode of living is regular and safe. Yet, with these advantages, the *métier* is not very popular amongst women. To be a nurse requires a good deal of self-denial and a fondness for the work. Most women have these qualities; but they usually prefer to exercise them in individual cases, and not for the general benefit of humanity. A really good nurse is very difficult to obtain. The qualities which make a person valuable in the wards are not those which are of much avail in private life; and it is a matter of experience, that one who has been used to private cases does not manage the patients in a ward well. The class of people with whom they mix is different to what they have been accustomed. They dislike the restraint which a system, to be efficient, must ever adopt; and they are used, probably, to more ease in their manner of living.

A life in the wards is by no means an idle one. It requires intelligence and trained skill, love of their work, and a kind and sympathising nature.

Those who know what nursing is in many public institutions, and compare the present standard with their own easily attainable and often attained ideal, will feel that here lies a large sphere of work for women, to which the true friends of the sex and of humanity will do well earnestly and repeatedly to draw their attention. The demand is largely increasing, and the supply is extremely scanty.

The success of nursing in any particular institution depends in a great measure upon the character of the superintendent. As a rule, nurses prefer to act under those who are their superiors in birth and education; and, in all cases where there is restraint and discipline, the wards are better looked after, and the attendants are more intelligent and of a superior class. A large amount of authority should be given to a suitable superintendent, and much left to her discretion; but she should always be under the authority of the Medical Board, who should investigate any complaints that arise. It should be the duty of the resident medical officer and one other appointed person to see that efficient nurses are in the wards. Supreme power often leads persons to exercise too harshly an influence which, under other conditions, would be very valuable. Discipline must be adopted, if the system is to succeed;

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* See table at p. 427, British Medical Journal, October 17th, 1868.

but it should be exercised with moderation, and not from caprice. There is no sterner judge of a woman than one of her own sex.

There are many who object to the idea of a sisterhood—most of them to the name more than anything else; but all who have had practical experience of the old and new systems recognise in the latter the commencement of an organisation which can yet be more widely extended, and give the means of a respectable and honest livelihood to a large class of the unemployed community.

THE DUBLIN UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.

Among the many signs of life and energy which mark the onward progress of the Dublin School of Medicine, none are more worthy of note than the modern, even recent, institution in the Irish metropolis, of professional societies composed of medical students, with course of procedure and objects similar to those pursued and aimed at by their seniors, the practising and teaching members of our profession.

The Dublin University Medico-Chirurgical Society was founded only a year ago, and owes much of its energy and success, if not its origin, to the zeal and indomitable industry of one of the most highly gifted and cultured members of our profession, or, indeed, of our time, the Rev. Professor Haughton. Its constitution is essentially academical; and, like the other University Societies, it rejoices in the annual appointment and inaugural address of a first-class student; who is distinguished by honour and precedence, and is called Auditor, while he represents the Society in the character of its chief speaker. The meeting of this Society held a few days ago was of great interest. It showed the value of University training for medical men, as well as the position and influence conceded to the University School of Physic among the sister faculties. While the meeting was a medical one, it was not exclusively so. It was largely attended by the Clerical Fellows of Trinity College; and among the chief speakers was one of the lay Fellows, Dr. Webb, Regius Professor of Civil Law in the University. The Auditor's address was remarkably good; and contained abundant evidence of a really liberal education, and independent thought. He respectfully, but fearlessly, criticised the details of the training of which he himself was an example; and, in the presence of Regius Professors, and with the support of senior medical critics, he urged the abolition of compulsory attendance on lectures, and advocated various reforms in the medical curriculum. The youthful essayist discussed professional schools for the general education of persons designed for the profession of medicine; frequent examinations at the conclusion of, or instead of, lectures; the separation of the collateral sciences from medical study, and their attainment before the commencement of clinical work; and the teaching of Medicine and Surgery in hospitals instead of in Colleges. It was, in fact, an address in many respects parallel to the memorandum recently issued by the Council of Metropolitan Teachers. His remarks obtained the warm commendation of the Regius Professor of Physic, Dr. Stokes, who insisted on the value of academical education for medical men, and claimed for the University of Dublin the distinction of being the only University in these countries, save that of Oxford, which required a full academical education from all candidates for degrees in medicine. Dr. Stokes stated that the University of Cambridge only required a half training in Arts in the case of medical students; and we may add, that to Dublin must be given the pre-eminence over Oxford in this matter; for, while the latter University requires the Bachelor of Medicine to have passed the Arts degree examination, the Dublin University, and it alone in the United Kingdom, requires the M.B. to have obtained the legal seal of a learned education by graduating in Arts. The remarks of Professor Webb were pregnant with good sense. He believed that Medicine required general culture even more than Divinity and Law. These professions had grades and distinctions which gave them a high public status; and, in the absence of corresponding advantages, medical men could only hold their own among the other professions, and with the public, by generally availing themselves of high literary training, which would tend to abolish that narrowness of view supposed to be peculiar to that class of physicians who adopted the modern fashionable materialistic philosophy.

Fever has prevailed to a great extent at Pelton, during the past few weeks, and several deaths have resulted therefrom.

The small town of Bideford rejoices in having four medical gentlemen who are justices of the peace.

Addenbrooke Hospital, Cambridge, has received, through its Treasurer, a legacy of £450, under the will of the late James Reynolds, Esq.

The Guardians of the parish of Birmingham are about to appoint one Public Vaccinator for the whole parish, and to require that he shall devote the whole of his time to the duties of his office. The minimum fee of 1s. 6d. per case is to be paid; and it is estimated that his income will be about £400 a year.

Dr. Buchanan, Medical Officer of Health for St. Giles's District, in consequence of the great increase of fever in the metropolis, has urged upon the Local Board of Works the necessity of establishing a public disinfecting chamber for the purpose of purifying infected clothing, bedding, etc., pursuant to the Sanitary Act, 1866, sec. 23; and, as a preliminary step (says *Pall Mall Gazette*), the Board have invited the local boards of adjoining parishes to join with them in providing such an establishment. This is a measure which the medical officers of the metropolis have long urged upon their respective boards, but without success in even a single instance.

UNIVERSITY OF CAMBRIDGE.

Dr. P. W. Latham, F.R.C.S. Lond., Fellow of Downing College, has been appointed assistant to, and deputy for, the Downing Professor of Medicine. Dr. Latham has also recently been appointed Assessor to the Regius Professor of Physic.

MISCONDUCT OF A MIDWIFE.

At an inquest held before Mr. W. Gaisford, county coroner, at St. George's, Gloucestershire, on the body of a newly-born male child, named Parsons, found in a rudely constructed coffin in a churchyard, it came out in evidence that the child must have been four days old at least, but that the midwife had stated it was still-born, in order that the parents might save the burial fees. The medical evidence showed that death had resulted from exhaustion and want of proper nourishment. The parents of the child are in a most deplorable state of poverty. It was understood that medical attendance would be provided for the mother, who had had none up to that time.

THE EPIDEMIOLOGICAL SOCIETY.

The Epidemiological Society has changed its place of meeting from Soho Square, to the rooms of the Medical Society of London, 32A, George Street, Hanover Square. The Society has also changed its evening of meeting, from the first Monday to the second Wednesday of the month. The Society will open its session on the 9th instant, when Dr. Seaton, the President, will deliver an address.

THE ROYAL SOCIETY.

The annual meeting of the members of the Royal Society took place on Monday, the Festival of St. Andrew. Lieutenant-General Sabine, the President, delivered the address, in which he reviewed the principal scientific events of the past year. He was re-elected President. Dr. W. A. Miller, of King's College, was elected Treasurer; and Mr. G. G. Stokes, M.A., of Pembroke College, Lucasian Professor of Mathematics in the University of Cambridge, and Dr. W. Sharpey, Secretaries. Mr. W. H. Miller was elected Foreign Secretary. The proposed members of Council, whose names were given at page 548 of the Journal for Nov. 21st, were elected. The Copley medal was awarded to Sir Charles Wheatstone, D.C.L. Oxon., Professor of Experimental Philosophy, King's College, London; and the Romford Medal to Dr. Balfour Stewart, M.A., Superintendent of the Kew Observatory of the British Association. Of the two Royal medals, one was awarded to the Rev. Dr. Salmon, Regius Professor of Divinity in the University of Dublin; and the other to Mr. Alfred Russel Wallace, well known by his researches on the zoology of the Eastern Archipelago. The annual dinner took place the same evening at Willis's Rooms, when about seventy sat down. The President was in the chair, supported by Lord Justice W. Page Wood; the Dean of Chichester; Sir Bartle Frere; Sir William Fergusson; Sir Ranald Martin; Professors Owen, Sharpey, Miller, Stokes, and Bowman; and Messrs. W. H. Flower, Prestwich, Gassiot, etc.

MEDICAL MEMBERS OF PARLIAMENT.

THE strength of the medical profession in the House of Commons is increased in the new Parliament by the addition of Dr. Brewer (Colchester), Dr. Lush (Salisbury), and Dr. Dalrymple (Bath). The former medical members—Dr. Brady, Mr. Clements, Sir John Gray, M.D., and Mr. Vanderbyl—retain their seats. It is probable that a county seat will be found for Sir Dominic Corrigan, who unsuccessfully contested Dublin at the recent election.

THE HEALTH-OFFICERSHIP OF ST. PANCRAS.

THE Vestry of St. Pancras have passed a resolution that the future medical officer of health is to reside in the parish. Under these circumstances, Dr. T. H. Greene, who is at present doing the duty, will not, we understand, be a candidate for the appointment. Other of the more distinguished candidates will probably be deterred by this resolution from coming forward.

RAILWAY COMPENSATION CASES.

THE report of the case of Allan *v.* the London and North-Western Railway Company this week will serve to remind lawyers and judges, we trust, of the utility of the provision touching compensation for injuries in the Regulation of Railways Act of 1868, which was not called into effect in this case, but might have been with advantage. Here was a case in which the amount of injury received was the only question; the alleged damages very heavy; tried in London, evidently at enormous cost both for legal and medical advisers; and still the judge took no notice, so far as one can learn from the report, of the clause allowing him to secure a medical *amicus curiæ*. Were the judges to do this in a few cases, it would come to be the custom for both sides to agree to do it for themselves, and so avoid the wasteful costs of a trial. If the judges allow the clause to become obsolete, no one else can put it in force.

THE PHILOSOPHY OF TEA-MAKING.

THE results of the investigations of careful experimenters are hardly, perhaps, sufficiently known to the multitude of tea-drinkers. The whole subject is carefully summarised by Dr. Letheby in his recent Cantor Lectures, which are now being reported in the *Chemical News*. There is a popular notion, which is an incorrect one, that soft water is best for tea-making. As a matter of fact, our London water, which has about five degrees of hardness when boiled, makes the best flavoured tea, provided that it be allowed to stand upon the tea sufficiently long. Boiling tea is one of the follies of which the officials in workhouses and other large establishments are guilty. This makes a deep-coloured solution, containing the worthless bitter extractive matter, which is devoid of physiological or dietetic property. In point of strength, it is found experimentally that infusions of tea and coffee are strong enough when about two and a half teaspoonfuls of tea, or two ounces of freshly roasted coffee, are infused in a pint of boiling water. From some inquiries which Dr. Edward Smith made into the relative average weights of a spoonful of different kinds of tea, it is to be inferred that the quantity of black tea used, as compared with that of green, is as three to two.

THE NEW ANÆSTHETIC: PROTOXIDE OF NITROGEN.

SINCE we first directed attention, a few months since, to the application of this rapid and valuable anæsthetic for the painless performance of short operations, such as extraction of teeth, it has been employed successfully, we understand, in nearly four thousand cases in England. It will form the subject of a favourable report from a Committee of the Odontological Society next week. Meantime Mr. Fox, one of the Secretaries, stated last Monday, at the Medical Society of London, that it has, during the last four years, been given successfully, and without bad result, in upwards of 200,000 cases in America, and that it is used largely by at least twenty gentlemen in Paris. We may congratulate ourselves upon having overcome the obstacles which an ill-conceived prejudice attempted to interpose when we urged this subject upon the attention of the profession here; but we would not the less insist upon the necessity for care and skill in administering an agent which is so seductive in its powers of robbing tooth-extraction and other minor operations of all their terrors. The use of the compressed gas, as suggested by Mr. Ernest Hart, is becoming general, and has proved very convenient.

TESTIMONIAL TO DR. CHOWNE.

ON Thursday, the 3rd inst., a meeting of friends and supporters of Charing Cross Hospital took place in the board-room of that institution, for the purpose of presenting to Dr. Chowne a testimonial in acknowledgment of the zeal and ability with which he had for the unusually long period of thirty-three years discharged the responsible and onerous duties of physician to the hospital, of the care and kindness he has shown to the patients under his charge, and of his assiduity in promoting the general welfare of the institution. The Chairman stated that Dr. Chowne was one of the earliest workers in the cause of the charity, and the intimate friend and colleague of the founder of the hospital, Dr. Golding. During the first twenty-one years of his appointment, Dr. Chowne took upon himself a principal share of the duties performed in the wards of the hospital; while the Medical School owed much of its present efficiency to his exertions. Dr. Chowne successively occupied the chairs of Medical Jurisprudence, of Obstetrics, and (conjointly with successive colleagues) of the Practice of Medicine, being scarcely ever absent from his post; and, from the time of his election to the hospital until the late appointment of a distinct medical officer, he performed, in addition to the duties of physician, those connected with the lying-in department. The testimonial, consisting of five pieces of plate, of the value of upwards of one hundred guineas, manufactured by Messrs. Smith, of King Street, Covent Garden, was presented, on behalf of the subscribers, by Robert Few, Esq., one of the trustees of the hospital. Dr. Chowne acknowledged the compliment, and thanked his friends for the honour done him; and gave an interesting account of the origin and progress of the hospital, and of his connexion with it from its foundation.

SUN-STROKE *v.* CONCUSSION OF THE BRAIN.

A CASE of considerable interest, in a medico-legal point of view, has been lately tried at the Central Criminal Court, in which a schoolmaster was charged with having caused the death of a schoolboy, aged ten and a half years, by striking him on the head with his hand. The boy survived three weeks, and was attended by a medical gentleman—the Poor-law medical officer—who did not, however, see him until eight days after the alleged blow had been given, and expressed the opinion that death had resulted from inflammation of the brain, caused by a blow. In consequence of a verdict to this effect having been returned by the coroner's jury, the schoolmaster was soon afterwards arrested, at the instigation of the Marquis Townshend; and, after having been three times remanded at the Marylebone Police Court, was finally committed for trial. Fortunately, as it happened, for the ends of justice, the boy, accompanied by his mother and by the clergyman of the district, had been taken, five days after the alleged blow had been struck, and three days before the parish surgeon had been called in, to see Mr. Sedgwick, of Park Place, Upper Baker Street, who pronounced the case to be sun-fever; and the man was acquitted on his evidence. The facts which appear to have chiefly influenced the jury in acquitting the schoolmaster on the charge of manslaughter were, the absence during life of any local sign of injury, and of tenderness at the part struck; the equally complete absence after death of any indication of local alteration of tissue at the part struck, and of any ecchymosed spots, such as are usually met with after death from concussion, and which were very carefully looked for in this case. The plea urged by the prosecution, that both the direct and indirect signs of injury might have disappeared during the three weeks which the boy survived the alleged blow, was weakened by the fact that no swelling of the scalp, nor other sign of violence, had ever been noticed by any one during life; and the only evidence against the schoolmaster, which could be considered important, was the fact deposed by two very young witnesses, that the deceased, who was hit about 10.30 A.M., had immediately laid his head on the desk, and had remained in this position, without moving, for two hours. No vomiting occurred whilst he remained in school; and the mother's evidence respecting vomiting after his return home was open to grave doubt. There was clear and undoubted evidence of sun-stroke having been received a few hours before the lad was seen and examined by Mr. Sedgwick; and at the trial of the schoolmaster, on the following day, for a common assault, which likewise ended in his acquittal, it was proved, to the astonishment of the Court, that not only was much of the evidence given by the witnesses for the prosecution on the preceding day totally false, but that there was absolutely no evidence to sustain the theory of concussion of the brain; for it was proved that the deceased boy, instead of remaining for two hours without moving, had, within half an hour after receiving the blow or slap on the head, and which had simply made him cry, been able to join with the rest of the school in a game of touch.

SEA-SICKNESS.

PROFESSOR FORDYCE BARKER, of New York, who has great experience and opportunities of gathering the experience of others in the treatment of sea-sickness, lays down the following rules, which have, he says, been thoroughly and successfully tested, usually in those who suffer most from the difficulty in remaining exempt from sickness even in long voyages. They are equally applicable, *mutatis mutandis*, to short voyages. 1. Have every preparation made at least twenty-four hours before starting, so that the system may not be exhausted by overwork and want of sleep. This direction is particularly important for ladies. 2. Eat as hearty a meal as possible before going on board. 3. Go on board sufficiently early to arrange such things as may be wanted for the first day or two, so that they may be easy of access; then undress and go to bed, before the vessel gets under weigh. The neglect of this rule, by those who are liable to sea-sickness, is sure to be regretted. 4. Eat regularly and heartily, but without raising the head for at least one or two days. In this way, the habit of digestion is kept up, the strength is preserved, while the system becomes accustomed to the constant change of equilibrium. 5. On the first night out, take some mild laxative pills, as, for example, two or three of the compound rhubarb pills. Most persons have a tendency to become constipated at sea, although diarrhœa occurs in a certain percentage. Constipation not only results from sea-sickness, but in turn aggravates it. The reason has already been given why cathartics should not be taken before starting. The effervescing laxatives, like the Seidlitz, or the solution of the citrate of magnesia, taken in the morning on an empty stomach, are bad in sea-sickness. 6. After having become so far habituated to the sea as to be able to take your meals at the table and to go on deck, never think of rising in the morning until you have eaten something, as a plate of oatmeal porridge, or a cup of coffee or tea, with sea-biscuit or toast. 7. If subsequently, during the voyage, the sea should become unusually rough, go to bed before getting sick. It is foolish to dare anything, when there is no glory to be won, and *something* may be lost.

SITTING ON SUPPORTERS.

IT appears from the minutes of evidence taken before a Committee of the House of Commons last session, and recently published, that, in the election for coroners in Ireland, the same qualification gives a vote as for the election of a member of Parliament; and that there is no legal enactment to prevent bribing. The maximum income, which at present is by fees, does not exceed £100 a year, for a good deal of unpleasant work. But it was stated that there is a good deal of treating occasionally, and one election has been known to cost as much as £1,000 to the fortunate candidate. Mr. Blake, M.P., told a story to the Committee, that, some time ago, at an election for coroner for a southern county, two persons who voted for him were drowned by reason of his treating them, and they were the first persons on whom he held an inquest.

VULCANISING ANIMAL SUBSTANCES.

AT a recent meeting of the Medical Society of London, Dr. Richardson made a communication on the process of Vulcanising as applied to Animal Structures. It had long been a plan adopted by dentists to produce vulcanite bases by the subjection of caoutchouc to superheated steam. It occurred to him whether animal tissues, under the same conditions, undergo the same change—whether they would vulcanise. To test this, he had subjected various animal substances to the process, carrying the heat to 350° Fahr. It was found that blood could vulcanise; and a specimen, reduced to a condition closely resembling caoutchouc, was placed before the meeting. A portion of animal fibrine was reduced to a condition closely resembling thin serous membrane. An egg placed in plaster of Paris, was exposed to intense heat; in this state, the albumen, instead of being made solid by coagulation, had been changed into a thin fluid resembling dissolved gelatine.

THE ANTISEPTIC METHOD.

DR. KELBURNE KING of Hull has made a communication to the Medical Society of London, on Carbolic Acid and the Antiseptic Treatment in Surgery. Suppuration, he said, was not a necessary process in wounds which did not heal by first intention; granulation could occur without suppuration. Access of air was the most common source of suppuration; not on account of the air itself, but of the germs contained in it. Carbolic acid diminished or annihilated suppurative action. The author had employed, in the following cases, dressings of: 1, solution of carbolic acid; 2, carbolic oil (proportion one to four); 3, carbolic putty—*i.e.*, whitening added to carbolic oil to a desired consistence. The following instances of its effects were given: 1. Diseased knee, with hectic fever; the discharges gradually diminished, and the patient improved. 2. Abscess in the inner portion of the thigh; the pus rapidly changed to clear serum, and the patient left hospital well. 3. Amputation through the injured parts in a case of crushed forearm; a slough of hopelessly injured portions separated, and the bone was re-divided; but healing was rapid. 4. Injury to the parts below the knee; recovery was most satisfactory. 5. Gunshot-wound of the left knee; amputation; sloughing of the anterior flap. 6. Crushed hand and forearm; severe scalp-wounds; collapse. 7. Gun accident; severe laceration of the whole hand and forearm. 8. Severe laceration of the hand, which had been drawn into an oil-crushing machine. 9. Accident from wheel of locomotive passing over foot. In all these cases of injury, primary amputation was performed; and all recovered with good useful stumps. The author said that the carbolic acid treatment produced the following effects. 1. Decomposition of discharges was prevented. 2. It enabled the parts injured beyond redemption to slough away without becoming foci for the re-formation of pus. 3. It exercised a control over the formation of pus in the centre of wounds. 4. It diminished the chances of blood-poisoning. 5. It absolutely prevented all fetor.—Mr. De Méric objected that the so-called principles of Lister were unwarrantable. Admitting that excellent results had been obtained, the cases might have done as well had no such treatment been adopted.—Mr. Hancock believed the treatment to be most valuable. He adduced some very successful examples occurring in his own practice. He preferred all the other applications of carbolic acid to the putty. He demurred, however, to amputation through the unsound structures.—Mr. Adams agreed with Mr. Hancock; but had found some instances in which carbolic acid was too greatly an irritant *per se*. The treatment could not prevent all suppuration. Exclusion of air was a most important concurrent means.—Dr. Sansom thought credit was justly due to M. Lemaire, who proposed the treatment in 1859. Competent observers had shown that the treatment was successful, and that it diminished suppuration.

ADULTERATED HONEY.

ACCORDING to a short notice in the *Chemist and Druggist*, there are at present in Germany itinerant dealers in so-called Swiss land honey. This substance finds a large number of purchasers on account of its fine taste and beautiful appearance, while, instead of being real honey, it is simply starch converted into sugar by means of sulphuric acid. It may be detected by means of the presence of sulphuric acid therein—viz., in the shape of sulphate of lime or gypsum; its use, of course, is perfectly harmless, but it is not honey, nor does it contain any at all. As this trick is quite likely to be imported into this country, dealers had better be on their guard.

QUARANTINE RE-ENFORCED IN SPAIN.

THE following notice appeared in the *Gazette* of last Tuesday.

"Board of Trade, November 30.—The Right Honourable the Lords of the Committee of Privy Council for Trade have received from the Secretary of State for Foreign Affairs a copy of a despatch from Her Majesty's Consul at Malaga, reporting that the Provisional Government of Madrid having decreed that all the liberal measures adopted in matters of quarantine by the Provincial Juntas shall cease to have effect, the sanitary direction of that port has resolved to re-establish the quarantines which were in force previously to the resolution; and, consequently, all vessels arriving at Malaga from ports of the United Kingdom, Gibraltar, and Malta, will, in future, be dismissed to a lazaret of observation of three days' quarantine."

We very much regret this sign of a retrograde movement on the part of the Spanish authorities.

SCOTLAND.

THE total constituency of the Aberdeen University, after the decision of all appeals, now numbers 2003.

THE Lord Rectorship of the University of St. Andrew's was decided on Thursday week in favour of Mr. J. A. Froude, by a majority of fourteen votes over that obtained by Mr. Disraeli.

A GENERAL meeting of students interested in the University of Edinburgh Musical Society was lately held in the Music Class Room, Park Place. The chair was occupied by Professor Oakeley, one of the Presidents of the Society.

THE annual general meeting of the Edinburgh Medical Missionary Society was held on Tuesday week, in Queen Street Hall. There was a large attendance. Mr. William Brown, F.R.C.S., President of the Society, occupied the chair.

AT the meeting of the Edinburgh Royal Medical Society, held on Friday, Nov. 27th, the following gentlemen were elected the annual Presidents for the year 1868-69: Mr. F. Pritchard Davies (Senior); Mr. A. Rabagliati, M.A. and L.R.C.S.E.; Mr. C. Holden, M.B. and C.M.; and Mr. J. S. Cameron, M.B., C.M., and B.Sc.

ON Thursday fortnight, the first ordinary meeting of the Edinburgh Geological Society for the winter session was held in their rooms, No. 5, St. Andrew Square; Mr. James Gowans, one of the vice-presidents, in the chair. Dr. Page, the retiring President, delivered an address on Field-work, its Charms and Instructions.

ABERDEEN AND GLASGOW UNIVERSITY.

THE polling for the representation of the Universities of Aberdeen and Glasgow commenced on Wednesday. As arrangements have been made by the agents of Mr. Moncrieff and Mr. Gordon to record the votes in favour of each candidate alternately, until those given for one or other party are exhausted, the number of votes up to Thursday evening (the time of our going to press) are of no value in ascertaining the chance of success of either party. The poll closes on Saturday evening.

UNIVERSITIES OF EDINBURGH AND ST. ANDREW'S.

THE polling for the representation of these Universities commenced in Edinburgh on November 30th, in the Library Hall of the University, under the direction of the Vice-Chancellor, Professor Christison, assisted by three pro-Vice-Chancellors. At St. Andrew's, the polling was opened the same day in the United College Hall, under the superintendence of Principal Tulloch, the Vice-Chancellor, and two pro-Vice-Chancellors. The number of votes recorded for Dr. Playfair and Mr. Swinton have been throughout nearly equal. The *Pall Mall Gazette* of Thursday evening, however, says: "We learn, by a telegram received to-day, that at half-past eleven this morning Dr. Playfair was eighty ahead of his opponent."

THE REBUILDING OF THE ROYAL INFIRMARY, EDINBURGH.

A CORRESPONDENCE of considerable importance is going on in the Edinburgh daily papers, relative to the proposed site of the new hospital. Professor Syme opened the correspondence by sending a circular letter to the Managers, raising objections to the new hospital being built on the present site, stating the too frequent prevalence of pyæmia in the surgical wards. He strongly recommends, although against his previous convictions, that the whole Infirmary should be removed to the extensive and beautiful grounds of Watson's Hospital. They are only three minutes' walk from the University, exposed to the south and west in an open situation, and command a fine view of the Pentland Hills. Professor Spence brings forward strong statistical evidence to show that the mortality in the surgical wards is far from being excessive. The subject is one of great importance, not only to the public of the whole of Scotland, but to the medical school so justly celebrated.

IRELAND.

THE DUBLIN ELECTION.

IT is stated in Dublin that one of the lately chosen members for the county of Meath will retire, at an early opportunity, in favour of Sir Dominic Corrigan; and that the learned Baronet will be elected to fill the vacancy so created without any opposition. The recently-elected members for the county Meath are Mr. Corbally and Mr. McEvoy. It is to the former of these gentlemen, we understand, that the above-mentioned rumour applies.

MEDICAL MAYOR OF LONDONDERRY.

ON the 1st inst., Dr. Thomas H. Babington was elected Mayor of "the maiden city". Dr. Babington is well known to the profession as a practitioner of standing and repute. He is a B.A., M.B., and M.D. of the University of Dublin; Fellow of the Royal College of Surgeons in Ireland; Surgeon to the Londonderry County Infirmary and Gaol; and a frequent contributor to the pages of our esteemed contemporary, the *Dublin Quarterly Journal of Medical Science*.

KING AND QUEEN'S COLLEGE OF PHYSICIANS' LIBRARY.

UNDER the provisions of the School of Physic (Ireland) Act of 1800, matriculated students of the School of Physic can obtain books out of Sir Patrick Dun's Library at the College of Physicians, Kildare Street, under the regulations laid down by the President and Fellows. Students availing themselves of this privilege, must contribute ten shillings *per annum* to the Library; and must make a pecuniary deposit to secure the College against loss from injury or non-return of books.

DUBLIN MEDICAL SOCIETIES.

THE opening meetings of the various metropolitan societies have all been held, except those of the Surgical and of the Junior Surgical Societies. The inaugural meeting of the former will take place at the Royal College of Surgeons, at 8 P.M., on December 11th; and of the latter, at the same place and hour, on December 7th.

THE MAYORALTY OF DUBLIN.

AT a meeting of the Dublin Corporation held on December 1st, Sir John Gray, M.D., M.P. for Kilkenny, has been elected Lord Mayor for the ensuing year, in succession to Sir William Carroll, M.D., the present Lord Mayor. Sir John Gray retired from practice many years ago, when he became editor of the *Freeman's Journal*, the oldest daily paper in Ireland; and he has been a chief mover in the Dublin Vartry water scheme. It is believed however, that Sir John will decline the honour, which was conferred on him without his consent, and that Sir William Carroll, the present Chief Magistrate, will continue in office for another year.

MRS. JOSEPH ROBINSON'S CANTATA.

THIS composition, to which we have already adverted, is at present in course of rehearsal, under the conduct of Mr. Joseph Robinson; and will be produced on the 22nd instant, when their Excellencies the Lord Lieutenant and the Duchess of Abercorn have signified their intention of being present. The proceeds, as before stated, will be given to Sir Patrick Dun's Hospital.

CARMICHAEL SCHOOL OF MEDICINE.

ON the morning of November 25th, a young gentleman, named Edmund Miles, a student in the Carmichael School of Medicine, met his death under sudden and melancholy circumstances. He was driving near Moore's monument, close to Trinity College, when he had an altercation with some persons who, apparently, opposed his progress. A fight of very short duration ensued; Miles was seriously wounded, and was taken to Mercer's Hospital, where he died within a few hours, having never recovered consciousness after the injury. From the medical evidence given at the coroner's inquest by Messrs. Ledwich and McDowell, Surgeons to Mercer's Hospital, who made a *post mortem* examination, it appeared that there was an extensive fracture of the anterior fossa of the cranium, extending from the cavity of the orbit backwards to the base of the skull. The inferior surface of the anterior lobes of the brain was lacerated. There was a large clot at the base of the brain. These injuries, Mr. Ledwich believed to have been caused by a stick, umbrella, or some other blunt instrument, having been thrust through the orbit with great violence, and were sufficient to cause death. There was no evidence as to who inflicted the fatal injury, although three young men were in custody as having taken part in the altercation which led to Miles's death. The jury returned an open verdict, in accordance with the facts proved at the inquest; and on the morning of Nov. 28th, the mortal remains of the deceased were interred at Irishtown Church, near Dublin, whither they were followed from Mercer's Hospital by a very large concourse of medical students, and several members of the profession. Deceased was in his twenty-fifth year, and was most popular among his fellow students.

DUBLIN UNDERGRADUATES' PHILOSOPHICAL SOCIETY.

THE opening meeting took place in the Dining Hall of Trinity College, on Thursday evening, November 26th; the Right Hon. John Edward Walsh, LL.D., Master of the Rolls, in the chair. There was a very large attendance, particularly of members of the profession; and the opening address, on the Value of the Study of Poetry as an Aid to Mental Culture, was delivered by Mr. Vincent Smith, Scholar, son of Dr. A. Smith, King's Professor of Materia Medica. Addresses were delivered in proposal and support of various resolutions by the Right Hon. Sir Joseph Napier, Bart.; Rev. J. P. Mahaffy, F.T.C.; Professor Webb, F.T.C.; Mr. Falkiner, Q.C.; Professor Dowdeny; Mr. Armstrong; and Judge Kelly. The President's Gold Medal for Composition was delivered to Mr. Standish O'Grady; the Society's First Prize for Composition, to Messrs. W. E. Burroughs and Herbert Wilson, equal; the Society's Silver Medal for Oratory, to Mr. William Crooke; the First Prize for Oratory, to Mr. J. B. Sandford; and the Second, to Mr. J. Scott.

ST. ANDREW'S MEDICAL GRADUATES' ASSOCIATION.

THE first meeting of the anniversary session was held at Willis's Rooms on Wednesday last, at 7 P.M.; B. W. RICHARDSON, M.D., F.R.S., President, in the Chair. Several members were elected, among whom was Dr. Lush, the newly elected M.P. for Salisbury. Professor Owen, F.R.S., Dr. William Farr, F.R.S., and Mr. Froude, the present Rector of the University, were elected honorary members.

The Treasurer's Report showed the finances to be in a satisfactory condition.

The Council, in their *Report*, contrasted the position of the graduates of St. Andrew's now with that they occupied last year. Since then the parliamentary franchise had been gained and exercised; and the other franchise, on which this was based—the University franchise, the right of being members of the General Council—was no less valuable. Attention was directed to the limitation of non-resident graduates to ten annually—a regulation which the Council described as an injustice to the University, because in time the Medical Faculty would thus be starved out of existence; and an injustice to the profession, because a competent candidate was thus unable to obtain the honour which he had earned, whenever there were ten other candidates equally entitled to it. One hundred and thirty-nine new members and associates had been elected during the year; and the Report mentioned, in terms of deep regret, the loss by death of Drs. Thiselton Dyer, Fayrer, Ray, and Stookes. The report was received and approved, on the motion of Drs. Pike and Watson.

Dr. CRISP then moved—"That the Council be instructed to take such steps as they may deem expedient to obtain the repeal of the regulation limiting the number of non-resident graduates to ten annually."

Dr. DRYSDALE seconded the resolution. In the debate which followed, in which Drs. Davey, Wynn Williams, Pike, Day of Stafford, Cleveland, and the President, took part, a strong and unanimous condemnation of the regulation was expressed. The motion was carried unanimously.

The following gentlemen were elected officers for 1869:—*President:* B. W. Richardson, M.D., F.R.S. *Vice-Presidents:* Drs. Davidson, C.B., H. Day, Greenhalgh, Macintyre, Lockhart Robertson, and Tuke. *Council:* Drs. Ballard, Bloxam, Cholmeley, Cleveland, Collet, Crisp, Davey, Drysdale, Dudfield, Fairless, Fox, Day Goss, Hughlings Jackson, James, Keiller, Nicholls, O'Connor, Procter, J. Seaton, J. Rogers, Roberts, West, Whitmore, Wynn Williams, Brodie, Buchanan, W. H. Day, Griffith, Lawlor, Hill, Morris, and Wiltshire. *Honorary Treasurer:* Dr. Paul. *Honorary Secretary:* Dr. Sedgwick. *Auditors:* Drs. T. Ballard, Cooper Rose, and Rhys Williams.

The PRESIDENT said that the urgent request of the Council had induced him, after much hesitation, to consent to his re-election. He expressed a deep sense of gratitude for this mark of the confidence of the Association.

The ordinary business having been transacted, the session was continued for the consideration of scientific subjects.

Dr. SEDGWICK read a Report on the Parasitic Theory of Disease. An animated discussion ensued, in which Drs. Crisp, Drysdale, Tilbury Fox, Tuke, Day, Ballard, and the President, took part. Dr. Sedgwick having replied, the session was adjourned until the following day.

The session recommenced on Thursday, at 2 P.M., when Dr. Tuke opened a debate on the Criminal Responsibility of the Insane, and pointed out the insufficiency of the present legal test. A paper was read by Dr. Crisp, on the Influence of Moist Atmospheres in the Production of Phthisis. An abstract of these, and of other papers read, we must defer until next week. Dr. Richardson's oration, on the World of Physic and the World, we have noticed elsewhere. After the delivery of the address, a testimonial, consisting of an illuminated address, a carved oak writing-table, and a silver inkstand, were presented to Dr. Sedgwick, the Honorary Secretary of the Association. The anniversary dinner was held in the evening.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH: SPECIAL MEETING.

A SPECIAL GENERAL MEETING of the Metropolitan Counties Branch will be held at 37, Soho Square, on Tuesday, December 8th, at 4 P.M., to consider the address issued by a Committee of the Association in reference to the Direct Representation of the Profession in the Medical Council. (See BRITISH MEDICAL JOURNAL, Nov. 7, pp. 506-7.)

A. P. STEWART, M.D. } *Honorary Secretaries.*
ALEXANDER HENRY, M.D. }
London, November 17th, 1868.

BATH AND BRISTOL BRANCH.

THE next ordinary meeting of the above Branch will be held at the York House, Bath, on Thursday evening, December 10th, at 8 P.M.; R. N. STONE, Esq., President.

CHARLES STEELE, } *Honorary Secretaries.*
R. S. FOWLER, }
12, Meridian Place, Clifton, November 1868.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

AT the second ordinary meeting of this Branch, held on November 2nd, the following communications were made.

Communications.—1. Dr. BALTHAZAR FOSTER exhibited a specimen of Mitral Stenosis. The mitral orifice barely admitted the tip of the little finger, and was roughened by calcareous deposit. The left auricle was hypertrophied. The physical signs observed during life were, a murmur preceding and running up to the first sound, a distinct presystolic thrill, and irregular and unequal impulse. The murmur varied in intensity, and for a time disappeared when the patient had improved under treatment by digitalis. The valvular lesion was referred to rheumatic endocarditis which occurred twelve years ago.

2. Mr. J. F. WEST related a case of Plastic Operation for the Restoration of the Lower Lip. Thomas Walters, aged 40, labourer, was admitted into the Queen's Hospital on May 28th, 1868, on account of epithelial cancer of the lower lip. It was removed by an ordinary V-shaped incision; and he left the hospital, apparently cured, in three weeks. He remained quite well for six weeks; then the disease returned, and progressively extended. On re-admission (September 28th), nearly the whole of the lower lip, and about an inch of the cheek beyond the left angle of the mouth, appeared to be involved in the disease. On October 2nd, Mr. West removed the whole of the morbid part in a triangular form, and formed a new lip after Syme's method. The flaps were retained in contact by interrupted silver sutures. The wound healed entirely by the first intention, so as to form a lip in every way seemly and serviceable, the mouth having a tolerably natural appearance.

3. Dr. MACKEY exhibited a specimen of Fibrous Stricture of the Œsophagus, situated at the sixth vertebra, taken from a boy aged four and a half years, who, on July 22nd, swallowed some soap-lees in mistake for tea. He immediately had excoriation of the mouth and vomiting. Within ten days, he had some dysphagia, and regurgitated food. Within a month, emaciation was marked, and he could take only liquids. A No. 12 bougie was passed with difficulty, and some days it could not be passed; but he improved for a time with its use. At the commencement of September, he vomited much matter and blood. After this, the bougie could not be used; and he gradually sank, and died on November 10th. The lungs were the seat of pyæmic abscesses.

4. Mr. A. BAKER exhibited an Inverted Uterus, which he had removed by means of the Ecraseur. The patient was about forty-one or forty-two years of age. Nine years previously, a fortnight after a hard labour attended with unusual loss, whilst straining, a large protrusion occurred, with flooding. The swelling was returned by the late Mr. Wilcox of Warwick. Since that time she had scarcely ever been free from sanguineous discharge, profuse or scanty; and had occupied mostly the recumbent posture. Ten or eleven months ago, a small polypus was removed from the uterus by the wire *écraseur*. Still the symptoms were not removed; and she was received into the Birmingham General Hospital, where the fundus uteri was found inverted through the os into the vagina. The constriction of the body by the rigid upper margin of the cervix gave to the tumour a strong similitude to fleshy polypus with a broad stem; but the uterine cavity was scarcely an inch in depth, and the uterine sound could be carried all round the tumour on the same level. The fundus uteri could not be felt in the hypogastrium, and an examination of the rectum yielded negative results. Drained of blood, and incapable of any exertion, the patient was anxious for relief. Hence it was determined to attempt reduction under chloroform; and, that failing, to remove the protruding part. On October 30th, whilst she was in a state of anæsthesia, the hand was passed into the vagina, and efforts to return the inverted fundus were continued for three-quarters of an hour. These being ineffectual, the fundus was pulled down through the vulva, and the part removed by the chain-*écraseur*. One or two small vessels bled, and were touched with the actual cautery; when, as slight oozing continued, a small sponge was placed against the crushed surface, and the parts were returned into the vagina. For two or three days she was feverish, and had abdominal pain, with slight tenderness; but, under opium and fomentations, these symptoms subsided, and she was now convalescent.

5. The PRESIDENT (Mr. NEWNHAM) related a case of Hydatid Cyst, supposed to be Ovarian. The patient was aged 25. On performing ovariotomy, extensive adhesions were found. Thirty-seven and a half pints of yellow fluid were withdrawn, and the cyst was removed entire; there was no pedicle. Three small cysts were also found. She died in thirty hours. On *post mortem* examination, there was found to be hæmorrhage from laceration of the edge of the liver, under the left lobe of which a hydatid cyst lay. There was also a cyst under the right kidney, and a small cyst in the broad ligament.

6. Dr. W. HINDS read a paper on Poisoning by Strychnia, illustrating the subject by reference to a case which had occurred in his own practice, and to some cases recently published in the medical journals. The author alluded to the probable inexpediency of resorting to chloroform, as recently recommended, except as a purely secondary remedy; and especially to the neglect of or delay in the administration of evacuants. He also gave the notes of a short analysis of certain "vermin-killer" powders, as sold in packets; and exhibited, under the microscope, some of the forms of crystalline deposit from strychnia-solutions in chloroform.

7. Mr. FURNEAUX JORDAN read a paper entitled "Observations on Surgical Therapeutics". The paper was well illustrated with diagrams and by cases, and excited interesting discussion.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOV. 10TH, 1868.

SAMUEL SOLLY, ESQ., F.R.C.S., President, in the Chair.

ON EXCISION OF THE LARGER JOINTS; WITH A TABLE OF CASES: BY HENRY LEE, F.R.C.S.

THE author gave a table of twenty-two cases in which excision of the larger joints was performed. The table included three cases of resection of the head of the femur, and twelve cases of excision of the knee-joint. Out of the twenty-two cases death occurred in two cases only—namely, in the eleventh and fifteenth. In both of these, diffuse suppuration in the cancellous structure of the bone had taken place. The author attributed the successful results obtained to the accidental circumstance of his having had a large proportion of cases in which the ends of the bones had been consolidated by previous inflammation, caused either by the presence of a piece of dead bone or by an abscess; and also to the fact of a large proportion of the cases of resection of the knee-joint having occurred in children. He considered that, before the epiphyses were united to the shafts of the bones, resection of the knee might be performed without injury to the cancellous structure of the long bones; and that, in such cases, as well as where the cancellous structure had been previously consolidated, the great danger arising from purulent infiltration of the shafts of the bones was, in a great measure, avoided. The table presented was exclusive of a case of disease of the hip, and of one of disease of the knee, in both of which immediate amputation was performed, as it was found during the operation that the bones were too extensively diseased for excision alone.

THE RESULTS IN THIRTY-NINE CASES OF EXCISION OF THE KNEE. BY G. M. HUMPHRY, M.D., F.R.S., CAMBRIDGE.

This paper was a supplement to one published by the author in the *Medico-Chirurgical Transactions*, vol. xli. in which thirteen of the cases were related. Most of the remarks in that paper had been corroborated by his subsequent experience. The cases were all treated in Addenbrooke's Hospital. Twenty-eight recovered, gaining firm, sound, and useful limbs; two died, one from an attack of hæmatemesis, which seemed to have no particular relation to the operation; nine underwent amputation, of whom five recovered and four died. The operation was, in most instances, performed on account of synovial disease with ulceration of the cartilages and the bones, destroying the joint so as to leave no hope of its recovery to usefulness. In some it was performed for the purpose of removing a crippled useless joint from which the disease had subsided. The clean cut surfaces of the tibia and femur, if placed in good apposition and kept at rest, were commonly found to unite quickly and form a firm basis of support, so that the patient was able to walk, run, and work well; and there had been no liability to return of disease at the part in any of the cases. The limb should be kept straight; but even in the instances in which it became bent it was still very strong and useful. In the young subject, if the epiphysial, or growing, lines of the femur and tibia were left uninjured, the limb might keep pace in growth with the other limb, and generally did so, or nearly. In the cases in which the operation did not succeed, the failure was generally due to continued suppuration in scrofulous or unhealthy persons. Dr. HUMPHRY made a single external semilunar incision across, beneath the patella, and was careful to remove all the diseased bone, and to leave the cut surfaces of the tibia and femur in good apposition, having taken pains to secure the blood-vessels by torsion. He paid great attention to the adjustment of the limb, in the first instance, with splints and bandages so arranged as to leave the line of incision exposed, and was very unwilling to disturb the parts afterwards. He not unfrequently allowed an interval of five, six, or more weeks to elapse before he removed any of the bandages, thus securing primary union throughout the wound, or great part of it, in several instances. He did not allow the patient to leave the bed till firm union of the bones had taken place.

The PRESIDENT said, that in the earlier years of his practice he had seen much time lost in attempts to procure ankylosis in cases of diseased knee-joint. The authors of the papers had not alluded to secondary resection after failure of the first excision. In a case of this kind, where failure had arisen probably from *nimia diligentia*, he had excised a second time with success.

DR. JEFFERY MARSTON said that, some time ago, he had performed, at Netley Hospital, excision of the wrist by Lister's plan, and the result had been most satisfactory. In eight weeks, the patient had the power of pronation and prehension. There had been but few cases of excision in the Crimean war; but in New Zealand, where there had been many cases of wound of the upper limb, there had been six cases of excision of the head of the humerus, which had arrived at Netley. All those were cases of secondary resection. In some, the excision was made longitudinally; in others, it was transverse or of horse-shoe shape. The former gave the better results.

Mr. BARWELL regretted that the authors had not related cases with more detail. In some cases of diseased hip-joint, there was reason to suspect the presence of pus in the pelvis, and there he recommended perforation through the acetabulum. The apparent shortening of the leg in hip-disease was due to abduction of the thigh; hence, after excision, it was important to place the limb in a state of adduction.

Mr. SKEY acknowledged the obligations due to Sir W. Fergusson for establishing the principle of excising instead of amputating in cases of diseased knee-joint. No doubt, the removal of the local disease, so as to bring together healthy portions of bone and secure union, was a great triumph. But, with all deference to the authors of the papers, there were difficulties which had occurred to him, not now for the first time, but when Dr. Humphry read his first paper on the subject ten years ago. How was it that thirty-nine cases were furnished in an institution like Addenbrooke's Hospital, while St. Bartholomew's Hospital failed to produce that number? He had been brought up in what might be considered a slow school, as a pupil of Abernethy—a man famed for his treatment of chronic disease of joints. He regretted that more details had not been given. Mr. Lee had referred to the cases operated on by the late Mr. Jones, of Jersey. Mr. Jones, he knew, referred much of his success to the constitutional after-treatment.

Mr. THOMAS SMITH said that resection of the knee had been much injured in professional esteem by the enthusiastic advocacy of some of those who first practised it. The profession were greatly indebted to Dr. Humphry for calling attention to the sources of danger, and for bringing forward the results of an experience on which a tolerably safe conclusion might be based. In reference to Mr. Skey's observations, he would say that an old hospital was essentially conservative—and rightly so. It was very proper to resist innovations at first; but during the last few years, he believed nearly all the surgical staff of St. Bartholomew's had performed excision, with, he thought, a fair amount of success. He himself had had fourteen cases of excision; of these, two had died, and the others (the latest having been operated on eight months ago) might be regarded as successful.

Mr. MAUNDER did not think that the question in cases of diseased knee demanding operation was one between excision and amputation; because, where amputation was at all thought of, the joint was too far gone for excision to be of any use. Excision was therefore limited to chronic cases in which the question would arise between the operation and treatment carried on over a long time; and he believed that excision would be required in but few.

Mr. JOHN WOOD said that, in most if not all the excision cases at King's College Hospital, constitutional treatment had not been neglected, but had often been carried out for a long period. It was, however, almost entirely useless in arresting gelatiniform disease of the cartilages. Several cases, which had been unsuccessfully treated at St. Bartholomew's by Abernethy's plan, had been operated on with good result at King's College Hospital. He could not agree with Mr. Maunder as to the question of amputation or excision; and he believed that there were many cases in which amputation was recommended, which would be better treated by excision. As to performing resection again in unsuccessful cases, he agreed with the President. He had seen several cases of this kind which had done well—amputation not being required in consequence of the failure of the first operation.

Mr. HENRY LEE had performed resection a second time in one case with success. The reason why large numbers of cases of excision were found in certain institutions, was probably that surgeons who were known to devote themselves to a particular branch of practice had more cases than others. The cases which had formed the basis of his paper were *bonâ fide* cases, not amenable to treatment; and in many of them amputation would have been performed ten years ago. If cases were selected with common care, the mortality after resection would be far less than that after amputation. In performing resection, care should be taken not to open the cancellous tissue of the shafts of the long bones.

Dr. HUMPHRY said that it was important not to remove the whole epiphysis. He had a great dislike of *nimia diligentia*; and did not allow anyone but himself to interfere with the dressings after they had been applied. He had been very much struck with the number of cases of diseased joint which came under notice at Addenbrooke's Hospital. Cases which were not bad enough for amputation were very troublesome, and hence excision of the joint had presented itself very opportunely. There was a difficulty in subjecting cases to constitutional treatment, as time was very important to a labouring man, and perhaps, after a long period of treatment, the result might be only imperfect. The question between amputation and excision was one that must often arise. His after-treatment consisted in leaving the patient alone as much as possible, and merely treating symptoms as they arose.

Mr. WALTON showed a patient on whom he had operated in 1858 for Elephantiasis of the Scrotum.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, NOVEMBER 5TH, 1868.

ERNEST HART, Esq., President, in the Chair.

MR. WEEDON COOKE made some remarks on the Carbolic Acid Treatment of Wounds.

Abnormal Lacrymation: its Causes and Treatment, especially by Excision of the Lacrymal Gland. By J. Z. LAURENCE, Esq.—Mr. Laurence divided the subject into two categories; the one, comprising excessive lacrymation due to an abnormal secretion of tears; the other, that due to an obstruction in the lacrymal conduits. Excessive lacrymation might be directly caused by emotion, or indirectly by reflex nervous irritation of the fifth nerve. In the latter case Mr. Laurence endeavoured to show that in the majority of instances the starting point of the irritation was in the cornea—a foreign body, an ulcer, etc., and that the lacrymation ceased on removing its cause. Mr. Laurence then alluded to the occasional occurrence of excessive lacrymation, the cause of which appeared to be an abnormally exalted secreting power of the lacrymal gland itself. In such cases other surgeons and himself had removed the lacrymal gland with a successful result. He then discussed the cases of overflow of tears caused by misplacement or obstruction of the lacrymal conduits. Most of such cases yielded to surgical treatment; but in a certain residue Mr. Laurence advocated the removal of the lacrymal gland as a last, but effectual, resource. Within the last two years he had removed the lacrymal gland in sixteen cases. No untoward consequences followed the operation. In all the cases operated on, the epiphora at once and permanently ceased. Any previous abscesses in the lacrymal sac had then to be treated as in dependent conditions.—Mr. POWER wished to know whether, in any of the cases operated on, erysipelas, orbital cellulitis, or any such results had ensued?—Mr. ERNEST HART expressed an opinion that, as the question at present stood, he should hesitate before he performed this serious operation, as he had always succeeded by simpler means; but he could quite understand that Mr. Laurence might, in the interests of surgical inquiry, be be induced to perform his operation in cases now, in which at some future period he would abstain from it.—Mr. LAURENCE, in reply, stated that, in all his cases but one, the operation-wound had united by the first intention; and that he fully appreciated the justice of Mr. Hart's remarks.

IRELAND.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS OF IRELAND.

SECOND MEETING, NOVEMBER 25TH, 1868.

FLEETWOOD CHURCHILL, M.D., President of the College, in the Chair.

Circumscribed Empyema on the Right Side: Evacuation in the Right Hypochondrium: Recovery. By THOMAS HAYDEN, F.R.C.P.—The patient was a boy, aged 13, who had been an inmate of the Mater Misericordiæ Hospital in July last, suffering from pleuritis of the right side. He was discharged on the 27th of that month, and readmitted, under Dr. Hayden's care, on September 23rd, for a swelling in the side. The boy's general health seemed to have suffered very little; appetite and sleep satisfactory. He was not remarkably thin, but was pale. There was decubitus towards the right side. There were no hectic symptoms, with the exception of occasional night-sweats of no great severity. Pulse 110; respiration scarcely affected. He had a slight "hem", rather than cough. The right inferior ribs and costal cartilages projected; and in the right hypochondrium was a large fluctuating tumour, at one point of which the liquid contents had approached quite near the surface. This tumour rested on the liver which had been displaced downwards nearly to the level of the umbilicus, and the surface of which formed for the liquid collection a margin of about one-fourth of an inch in depth. This swelling was limited towards the left by the middle line, and was the seat of tenderness, but not of pain. The heart was displaced upwards, and pulsated in the third left intercostal space. The right side of the chest was absolutely dull in front from the nipple downwards, and likewise laterally to the same level as far as the axillary line. Over the entire of this space, no respiratory sound or vocal thrill was perceptible. Posteriorly, percussion-resonance was clear throughout. Above the level of the nipple, respiration was at all points puerile; but posteriorly, and below this level, it was feeble and somewhat tubular. The treatment ordered consisted of nitro-hydrochloric acid in a bitter infusion, wine, etc., and poulticing. The swelling increased in size, and pointed over a large surface, which was now about two inches in diameter. Percussion-dulness extended upwards one inch and a half above the nipple. A sense of distressing tension in the side was complained of, and sleep was less refreshing. Adhesion of the cyst to the abdominal wall being clearly established, an opening was made, after a preliminary exploratory puncture, on October 9th. About three quarts of healthy-looking pus escaped from the wound in the course of the succeeding twenty-four hours, and coincidently the heart and liver gradually returned to their natural positions; whilst the entire right front of the chest, previously dull, became tympanitic, yielding a distant respiratory sound of metallic quality, and metallic tinkling when the patient coughed. The discharge became less from day to day, the prominence of the side disappeared, and the wound gradually closed. On October 23rd, the boy was out of bed; and, on November 8th, he was discharged, and returned to his home in the country At the date of discharge, the following was his condition. Pulse 96; appetite good; sleep enjoyed in any posture; no cough. He was still pale. The heart and liver were in natural situations. The right side was tympanitic in front from one inch above the nipple to the base, and laterally as far as the axillary line; here respiration was hollow or metallic in quality, tubular and distant, but not amphoric. When he coughed, a faint "click", much more distinct a week previously, was heard. Over the entire posterior surface of the right side, and laterally behind the axillary line, respiration was vesicular, but weak, and accompanied by coarse crepitant *râles;* and, to the same extent, percussion-resonance was somewhat less clear than on the opposite side. There was slight contraction of the right side, most manifest posteriorly. For several days subsequently to puncturing, a circumscribed emphysema, as large as an orange, appeared over the right costal cartilages when the boy coughed, disappearing immediately afterwards; this corresponded to the most prominent point of the swelling previously to evacuation, where the abdominal wall had been much attenuated; it was the seat of acute tenderness on pressure. The differential diagnosis as to the nature and source of the fluid accumulation lay between hepatic abscess with vertical enlargement of the liver; hydatids of the liver; perihepatitis with displacement upwards of the diaphragm; and circumscribed empyema with perforation of the diaphragm; and displacement of the heart and liver. It was shown that only the two last mentioned were reconcilable with the history, symptoms, and signs already detailed. Of these, the former (perihepatitis) was rendered most improbable by the pre-existence of right pleuritis, from which inflammation might be propagated by contiguity to the phrenic and hepatic peritoneum, and so give rise to liquid effusion localised in the right hypochondrium. The view involved in this supposition was, however, soon abandoned; and the diagnosis of right empyema, passing into the hypochondrium, was made rather presumptively than positively. A few similar cases in the literature of empyema were referred to, especially that of Andral (*Clinique Médicale*, Observation xx); and the features by which that just narrated were distinguished from most of those previously recorded were pointed out.

Dr. H. KENNEDY believed that the signs were those of pleuritic effusion; and asked what was the state of the patient, as to physical signs, when leaving the hospital for the first time—Dr. HAYDEN could not answer for the case until it had come under his own care.—Dr. H. KENNEDY had known a case of localised empyema which was never suspected during life.—Dr. JONES, of Kilkenny, had under his care a lad aged 12, with symptoms of empyema of the left side. The heart was pushed to the right side, towards the sternum. The gradual use of iodine cured him. The boy has now no deformity whatever, and is quite healthy. The lung recovered its natural size.—Dr. W. MOORE had at present, in Sir P. Dun's Hospital, a case of left empyema of necessity, which occurred in a country child aged 12. He formerly had the same child under his care, and treated it with syrup of the iodide of iron, blistered the side, and painted it with tincture of iodine. A small abscess formed, and discharged under the left nipple. The child left, and came back again this week with a tumour like a goose-egg at the lower part of the left side. The heart was displaced in the median line. —Dr. HAYDEN explained that the displacement of the heart was, in his opinion, analogous to the displacement of that organ in cases in which there was a liquid accumulation in front of the liver.

(*To be concluded.*)

DUBLIN UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.

OPENING MEETING, NOV. 27TH.

R. ADAMS, M.D., Regius Professor of Surgery, in the Chair.

THE AUDITOR (Mr. W. E. Battersby, B.A., Medical Scholar), delivered the opening address, having chosen as his theme the important subject of Medical Education. The length of this address, which was delivered with remarkable ease and good effect, prevents our giving it in full. We refer to its tenour in an another column.

Dr. STOKES, Regius Professor of Physic, moved—"That the thanks of the Society are due to the Auditor for his address; and that it be printed at the expense of the Society." He approved of the views of the Auditor on the question of preliminary education; and, having discussed other parts of the essay at length, he concluded with a forcible quotation from Dr. Newman's *Lectures on University Education*, to show that the proper end of education was to so train a man as to render him competent to study any profession to which he might be called in after life.

Dr. BANKS seconded the resolution, which was passed unanimously.

Dr. WEBB, Regius Professor of Civil Law, moved—"That this Society is worthy of the support of the members of the School of Physic." In a speech of considerable humour and force, Dr. Webb advocated the publicity of medical examinations; and declared his conviction that medicine required general culture more than the other learned professions, in order to avoid one of its chief dangers, materialism. Locke and Aristotle, and other medical philosophers, were instanced as remarkable cases in point; and the learned Professor alluded to the old saying, which had grown into a proverb, and ought to be carefully attended to in the present day, "Ubi tres medici, duo athei."

Dr. BARTON seconded the resolution, expressing his full agreement with the proposal to abolish compulsory attendance on lectures; and he strongly urged the necessity of medical students cultivating the art of public speaking, and availing themselves of the advantages afforded for this purpose by the Medico-Chirurgical Society.

Dr. Bennett, Dr. Little, Dr. Sinclair, and Dr. Collins (ex-Auditor), having spoken in support of further resolutions,

Mr. PORTER, President of the College of Surgeons, responded to a vote of thanks passed to the visitors.

The Society's prizes were then delivered to Messrs. Gregg and Crosslé, the successful candidates; and the proceedings were terminated by a short and impressive address from the President, Mr. Adams.

CORRESPONDENCE.

ALLEGED HOMŒOPATHY IN THE ABERDEEN INFIRMARY.

Sir,—In answering Dr. Reith's letter in your number of the 28th ult., his colleagues take this opportunity of acknowledging the apology he offered for the harsh language employed by him in his correspondence with them, and which he inserted in one of the local papers. "More than this," Dr. Reith says, he could not have done. If he had said "less than this," his colleagues think he would have been nearer the mark. He might have sent the apology to themselves personally, in place of leaving to fate or accident the chance of their seeing it in one of the three local newspapers.

1. With reference to the abstract of lectures, published nearly two years ago by Dr. Reith and myself, I never held myself responsible for any doctrine that he taught, nor did I expect that he would endorse all my teaching. But Dr. Reith knows that his views were then considered by myself and others as favouring homœopathy, while he considered that they were "essentially different". This opinion he expressed in a foot note of the published "abstract". He has since then discovered that "his homœopathy and Hahnemann's are identical".

2. In the discussion on his papers at the Aberdeen Medico-Chirurgical Society, as several speakers had stated objections agreeing with my own opinions, I saw no occasion for standing up and repeating them; but, for all this, I concurred with the other objectors who looked upon his views as "baseless fabrics", in passing a vote of thanks to Dr. Reith, for the care and thought he had expended on these papers. I have never denied Dr. Reith's abilities, and he cannot deny that I have long considered his views on disease, and the action of medicines, as being too exclusively dependent on the stimulation or paralysis of the vaso-motor system. But this is all introductory to our present dispute.

3. In the autumn of this year, when Dr. Reith was going to take a holiday, he left his Infirmary wards in the charge of Dr. Harvey, and he again asked me to superintend the patients in one ward, while he took charge of the other. We thus could not but see what treatment the patients were under, and we found that, while some were getting quarter-drop doses of the tincture of nux vomica and of the liquor arsenicalis (*B.P.*), others were getting the sixth trituration of sulphur, and drop-doses of the first decimal dilution of baptisia tinctoria. We also found that Dr. Reith had ordered into the Infirmary laboratory various homœopathic preparations, consisting of "mother tinctures," decimal dilutions and No. 6 dilutions, one drop of which is equivalent to one billionth part of a grain of the original substance.

4. On Dr. Reith's return we protested against his introduction of these medicines into the Infirmary, and also remonstrated with him for using officinal preparations in doses which we considered homœopathic, or—as he does not approve of that term—Hahnemannic. With his private practice, of course, we did not and could not interfere. Of his "expulsion from the profession" we never once spoke. We commenced the correspondence with great reluctance, as we had always been good friends; we worded our opinions in the most gentle manner, and in a way least calculated to hurt his feelings; but, knowing the general feeling of the profession, we condemned homœopathy as being neither a rational nor sound system of treatment, and we asked him to forego the practice of it in the Infirmary for the sake of his own professional reputation. His reply was couched in the terms for which he has since apologised. We, thereupon, considered it our duty to hand in the correspondence to the managers.

5. In his published defence, entitled "Homœopathy, its Nature and Relative Value", he appeals to the sympathies of the public by saying that a "reckless attack" has been made upon his professional character, and that attempts have been made to "blacken and discredit" it. We affixed no stigma to him but that of truth. He introduced homœopathic medicines into a public Institution without consulting his colleagues, or getting the permission of the managers. He is now the champion of homœopathy in these parts, and brands the ordinary legitimate practice of medicine as being "a most pernicious system" and "positively injurious" to the patients.

I now leave the question for you and your readers to decide, whether Dr. Reith's therapeutic views are objectionable or not; and whether I have substantiated the charges of which he is accused. I have shewn this letter to Dr. Harvey, and he quite agrees with all the statements contained in it.

I am, etc., J. W. F. Smith.

Aberdeen, December 1868.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

ST. PANCRAS GUARDIANS.

The following instruction has been issued to the medical officers of the infirmary.

"Instead of communicating with the coroner's beadle as heretofore, to inform the clerk of all deaths in the workhouse in which it may appear necessary to hold inquests, and to furnish such particulars as may be required, with a view to the clerk causing all necessary inquiries to be made, and to communicate with the coroner thereon."

This instruction we hold to be unconstitutional and dangerous. There should be no official interposition to quash the communication of details of any case of death to the coroner which a medical man may think necessary. The discretion of holding inquests lies with the coroner. Such inquiries have proved of the highest public importance in the case of deaths at this very workhouse. If the clerk had been consulted, we should probably never have had an inquiry into the famous case in which a child was laid out for dead while still living, and which did much to throw light upon the absurd management of the infirmary under the old *régime.*

THE LINCOLN BOARD OF GUARDIANS.

This Board has pursued a course which has already, we are glad to see, called down the reprobation of the daily press, in censuring its medical officer, Mr. Branthwaite, for successfully amputating the leg of a pauper patient who declared that he would rather die than be removed from his home to the hospital. The ground of censure is, that the Board would have saved £5 for the fee, and also the cost of the relief afforded during the successful progress of the case. The lad's life was saved; but that, apparently, is not held to be any source of congratulation. As to the saving of fee, we hold it to be a direct fraud on the medical profession, that paupers should be admitted to hospitals, and that the proper fees shall not be paid. It is a rule in cottage hospitals that whenever paupers—the charge of the state—are so admitted, the proper fees shall be paid; and we think that this rule should be insisted on in all hospitals. Mr. Branthwaite acted with skill and humanity. The guardians would fain have deprived him of his fees; and we cannot congratulate them on their justice and generosity.

OBITUARY.

A. W. DAVIS, M.D.

We have to record—and could wish to have done so at greater length—the death, on Sunday, November 15th, at his son's, Loppington Vicarage, of Dr. A. Wale Davis, in the eighty-eighth year of his age. Dr. Davis was one who took an active part, with the late Sir Charles Hastings, in founding the British Medical Association. He had attained, and long enjoyed, an unusual position of social and professional eminence. He was a native of Worcestershire, and entered the profession as a pupil of Dr. Beddoes of Bristol, and studied at Dublin, under Dr. Macartney, with Ashburner and Billing; graduating M.D. at Edinburgh in 1816, his thesis being entitled *De Hydrothorace.* It was as Dr. Davis of Presteign that he acquired his professional position. As a geologist, his local position and cultivated tastes led him to take some part in the investigation of the Silurian system, then attracting much attention, and brought him into correspondence with Murchison, Sedgwick, Daubeny, and Lyell. Well versed in chemistry, he undertook, with Dr. Daubeny, the investigation of the mineral waters of Llandrinidod, Llandegley, Builth, and Tenbury. His archæological inquiries were utilised by his friend Sir George Cornewall Lewis. A warm liberal in politics, and deeply interested in the diffusion of science and letters, he was associated with Romilly and with Lord Brougham in establishing the Society for Diffusing Useful Knowledge. In the interests of his profession, he was warm. He was chairman of the Poor-law Committee of the Association, of which Mr. Rumsey was secretary; and took an active interest in all the affairs of the Association. His active career was, however, prematurely cut short by blindness afflicting him in the prime of life. The intimate acquaintance which he had with, and the deep love which he bore to, the best and purest of our earlier writers, his literary tastes, and cheerful benevolence, stood him in good stead under this heavy affliction. To the latest days of his life, it may be doubted whether his numerous friends conferred or received the greater pleasure in their verbal and written intercourse with him. One who has earned high distinction in literature as a *Quarterly Reviewer* writes of Dr. Davis: "His intellect and stores of research and information, combined with his simplicity of character and his active benevolence, made him one whom we could at the same time admire and reverence." Dr. Davis leaves two sons—one the Vicar of Loppington, and late Fellow of Worcester College, Oxford; the other a stipendiary magistrate for Stoke-upon-Trent.

RICHARD HOBSON, M.D.CANTAB.

WE have to record the death of Dr. Richard Hobson of Leeds. Dr. Hobson was found dead in bed on Monday morning. He was seventy-three years of age. The deceased gentleman was born in Cumberland. In his youth, he was devoted to field-sports, and it was not until comparatively late in life that he studied the science of medicine. He was a student at St. George's Hospital in London, and at Queen's College, Cambridge; he took his degree of M.B. in 1825, and that of M.D. in 1830. The year after he took his degree of M.B., he settled in Leeds; and he speedily secured a large and lucrative practice as a consulting-physician. In these earlier years, he wrote two papers, one on Diabetes, and the other on the External Use of Croton-Oil. About two years ago, Dr. Hobson published a book, *Reminiscences of Charles Waterton*, which has since become very popular.

CHARLES COWAN, M.D., OF READING.

WE regret to announce the decease of Dr. Charles Cowan, of Reading, long and well known to our associates as one of the earliest and most energetic members of this Association. Dr. Cowan graduated M.D. of Edinburgh in 1833, and of Paris in 1844. He published, in 1835, a translation of Louis on *Phthisis*. He was an early contributor to the *Provincial Transactions*, on the Physiology and Pathology of the Brain and Mind. In 1844, he gave the Address in Medicine. Subsequently, he wrote on Thoracic Disease and other subjects; and, in 1855-60, contributed much to religious literature. Dr. Cowan was Senior Physician to the Berkshire Hospital, and enjoyed a large and leading county practice.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Nov. 24th to Dec. 1st (both inclusive).

Taken at Kew, by Dr. TREUTLER, Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.875
Highest reading of do. (corrected & reduced), Nov. 29th, 10 A.M.	30.041
Lowest ditto Ditto Nov. 25th, 2 P.M.	29.615
Range of pressure during the week	00.426
Mean temperature of the air in the shade	41.8
Mean temperature of evaporation	40.3
Mean temperature of dew-point	38.4
Mean degree of humidity (saturation=100)	89.0
Mean maximum temperature of the week	44.3
Mean minimum temperature of the week	36.5
Calculated mean temperature of the week	40.4
Maximum temperature of air in shade, on Nov. 26th	47.5
Minimum temperature (protected), on Nov. 29th	27.0
Minimum temperature (exposed on grass), on Nov. 25th & 29th	22.9
Range of temperature during week	24.6
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on Nov. 26th	62.9
Lowest ditto ditto on Nov. 27th	44.9
Mean amount of clouds (0—10)	8.3
Total rainfall (which fell on Nov. 25th & 26th, and Dec. 1st)	0.15 inch
Mean amount of ozone (0—10)	0.3

	WIND.									
	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	2	0	3	0	0	0	0	2	1.7
2 P.M.	0	3	0	3	0	0	0	0	1	1.6
10 P.M.	0	2	0	3	0	0	0	0	2	1.3

Mean force of wind (0—12) 1.5

The weather of the week has been dull and cloudy. Atmospheric pressure has been slightly lower, and the range considerably less than last week. Temperature has also diminished somewhat, and has been also more uniform. Winds have been extremely light, and have ranged between north-east and south-east. The sky has been almost constantly covered with an uniform layer of clouds, and the air has been very damp. A dense fog prevailed on the 29th Nov. till past noon. The general health continues satisfactory, though rheumatism and pulmonary ailments still prevail.

Kew, December 2nd, 1868.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 26th, 1868.

Chapman, George, Brierley Hill, Staffordshire
Hill, Joseph Higham, Royton, Lancashire
Hurlstone, Adam Payton, Cheltenham
Thomas, John Lewis, Llynon, Anglesea
Ticehurst, Augustus Rowland, Hastings
Wilkinson, William Henry Whiteway, Holloway

At the same Court, the following passed the first examination.

Betts, John, Westminster Hospital

MEDICAL VACANCIES.

THE following vacancies are declared:—

BATH EYE AND EAR INFIRMARY—Surgeon.
BELPER UNION, Derbyshire—Medical Officer for the Markeaton District.
BILLESDON UNION, Leicestershire—Medical Officer for Western District No. 2.
BIRMINGHAM—Public Vaccinator for the Parish of.
BRISTOL—Medical Officer for District No. 2, of City of.
CANCER HOSPITAL, Brompton—Secretary.
CERNE UNION, Dorset—Medical Officer for the Melcombe Horsey District.
CITY DISPENSARY, Watling Street—Physician.
DOWLAIS IRON-WORKS, Merthyr Tydvil—Assistant-Surgeon.
DROGHEDA UNION, co. Louth—Medical Officer for the Stamullen Dispensary District.
GLASGOW EYE INFIRMARY—Surgeon.
GLOUCESTER GENERAL INFIRMARY—Assistant-Surgeon.
GRANARD UNION, co. Longford—Medical Officer for the Workhouse.
HENLEY UNION, Oxfordshire—Medical Officer for the Caversham District.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Physician.
HOSPITAL FOR WOMEN, Soho Square—Assistant-Physician.
INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, Margaret Street, Cavendish Square—Visiting Physician.
JERVIS STREET HOSPITAL, Dublin—Surgeon.
KENNOWAY, Fifeshire—Parochial Medical Officer.
LEEDS HOSPITAL FOR WOMEN AND CHILDREN—Consulting-Physician.
LEEDS PUBLIC DISPENSARY—Senior Resident Medical Officer.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
ROMFORD UNION, Essex—Medical Officer for Districts No. 1 and 2.
ROYAL BERKSHIRE HOSPITAL, Reading—Physician.
ROYAL INSTITUTION OF GREAT BRITAIN—Fullerian Professor of Physiology.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ST. CATHERINE'S HOSPITAL, Bath—Surgeon.
ST. IVES UNION, Huntingdonshire—Medical Officer for the Parish of Warboys.
ST. PANCRAS—Medical Officer of Health.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician.
STEEVENS'S HOSPITAL, Dublin—Physician-Accoucheur and Lecturer on Midwifery in the Medical College.
STOURBRIDGE DISPENSARY—Surgeon.
SUNDERLAND GENERAL INFIRMARY and DISPENSARY—Physician.
TRINITY COLLEGE, Dublin—Professor of Botany.
UNIVERSITY COLLEGE HOSPITAL—Physician to the Skin Infirmary.
WEST DERBY UNION, Lancashire—Medical Officer for the Walton-on-the-Hill District.
WESTMINSTER HOSPITAL—Resident House-Physician.
WEST RIDING OF YORKSHIRE PENITENTIARY, Leeds—Consulting-Physician.

FATAL MISTAKE.—On Monday, Mrs. Rogers, the aged widow of W. R. Rogers, Esq., Staff-Surgeon of the 10th Hussars, who had been living at Billingshurst, was accidentally poisoned by her housekeeper giving her a draught of liniment in mistake for an aperient mixture, the bottles having stood side by side on the mantel-piece. The coroner's inquest on Tuesday exonerated the housekeeper.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen have just passed the primary examination in Anatomy and Physiology for the Fellowship of the College; viz., Messrs. William Henry Thornton, James Hurd Keeling, Alexander Vans Best, Joseph Cope Brookhouse, Charles Henry Leet, Alfred Coleman, Thomas Savage, George Eastes, Henry Arnott, Frederick Pooley Edis, John Dearden Bush, Arthur Raynor, Charles Edward Hoar, and James Lawrence Bullock. It is stated that one candidate withdrew, and four failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their anatomical and physiological studies for six months. For the preliminary examination in Arts, etc., commencing on the 15th instant, there are already upwards of 200 candidates. These examinations will be conducted by a large staff from the College of Preceptors, and will extend over several days.

LIBRARY OF THE UNIVERSITY OF ILLINOIS

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.

WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Subject for Special Discussion, "Gall-Stone". Mr. Peter Marshall, Mr. Hainworth, Dr. Hutchinson, "Specimens and Cases of Gall-Stone"; Dr. Leared and Dr. Thorowgood, "Papers on Gall-Stone".—Entomological Society.—Odontological Society, 8 P.M. Report of the Committee appointed to examine into the Value of Nitrous Oxide as an Anæsthetic.

TUESDAY.—Royal Medical and Chirurgical Society. 8 P.M., Ballot, 8.30 P.M., Dr. Pellew Bain, "On a New and Simple Method of Inducing Artificial Respiration in Cases of Asphyxia, etc."—Ethnological Society of London, 8 P.M. Mr. H. H. Howorth, "The Westerly Drifting of the Nomades from the Fifth to the Nineteenth Century"; Colonel Lane Fox, "On some Flint Implements found associated with Roman Remains in Oxfordshire and in the Isle of Thanet."

WEDNESDAY.—Epidemiological Society, 8 P.M. The President will deliver an Address.—Hunterian Society. 8 P.M. Council Meeting. Mr. Bryant, "On some points in the Treatment of Ovarian Tumour and on Ovariotomy"; Dr. Sutton, "On the difficulties in Diagnosis in some Cases between Pyæmia and Rheumatic Fever."—Royal Microscopical Society, 8 P.M. Dr. Bastian, "On Mounting and Tinting Sections of Animal Tissue."

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society, 8 P.M. Mr. Callender for Dr. Crouch, "Primary Amputation for Gun-shot Wounds"; Dr. Beigel, "On Cases of Epilepsy"; Mr. Thomas Smith, "A Case of Scleroderma"; Dr. Green, "A Case of Irritative Hypertrophy of the Heart."—Astronomical Society.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR, 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

NEW MEMBERS.

MR. COLES, Dr. Goodrich, Mr. W. S. Savory, Dr. Hope, Mr. Easton, Mr. Heckford, are thanked for their communications as to New Members. Forms of proposal have been forwarded where required.

THE Hospital Reports of Dr. Hayden, Dr. Barton, and Dr. Moore, are unavoidably postponed.

H. W. will oblige by forwarding us the newspapers containing the reports, that we may form our own opinion.

DR. S. will perceive that our attention is this week directed to the subject. It is very doubtful whether inquests ought not to be held on all cases of death in workhouses.

DR. OPPERT is thanked for his interesting enclosures.

THE LATE MR. JUMP.

THE following additional subscriptions for Mrs. Jump and family have been received by the Rev. G. W. Winter:—Medical Benevolent Fund, £20; Miss Lucy Davy, £2: A Stranger, 10s.; T. K., £5; James Lister, Esq., £5; Mr. and Mrs. Tallent (Hingham), £1:10; Mr. Marriott (Swaffham), £1; Miss Rudge (Cromer), £1; F. Godfrey, Esq., 10s.: Rev. T. C. Hulbert, £1:1; Mr. John Potter (North Elmham), £1:1; R. A. Mason, Esq. (Haslar), £5; Mrs. Trego (London), £1:1; G. Thorne, Esq. (Swanage), £1.

Received by J. Godwin Johnson, Esq., Norwich:—Dr. Copeman, £1:1; Two Friends, by ditto, £5; J. G. Johnson, £5; Per ditto, £3; Alfred Marster, Esq., £1:1; G. W. K. Firth, Esq., £1:1; Dr. Gibson, £1:1; T. Crosse, Esq., £1:1; C. E. Muriel, Esq., £1:1; J. Payne, Esq., £1:1; Mrs. H. J. Muskett, £1:1; W. Cadge, Esq., £2:2.—Mr. Johnson has kindly consented to receive subscriptions from Norwich and the district.

A FELLOW.—There will be an election for Examiner in January next, when Mr. Partridge's term will have expired. He is, of course, eligible for re-election, and has done good service in the College.

AT the latter part of the second paragraph of the paper on Mr. Greenway's "Improved Ophthalmoscope", in the JOURNAL of November 28th, should have been added the following. "A rotatory movement of the lens can be gained by turning its tubular support with the forefinger, which lies close to it."

RUSTICUS.—The latest and best report which we have seen on the principles of drainage is that of Lieut.-Colonel Ewart, on "The Proper Principles of Drainage to be adopted in the Towns of Oxford, Eton, Windsor, and Abingdon." It is addressed to, and printed by order of, the Secretary of State for the Home Department. It may be had, we suppose, at Hansard's, Great Queen Street, W.C. Colonel Ewart's address is 11, James Street, Buckingham Gate.

LEEDS SCHOOL OF MEDICINE.

SIR,—I had expected that the statement contained in a paragraph in the BRITISH MEDICAL JOURNAL of November 7th, headed "Provincial Medical Schools", so far as it relates to the number of pupils in the Leeds School, would have been corrected before now from another source; but, as I do not find such correction hitherto in your pages, will you allow me to state that the number of pupils at present in attendance on our classes is fifty-four, and not thirty-two, as given in the paragraph referred to. Nineteen new pupils have entered to our school during the present session, as against fifteen new entries for the previous year.

I am, etc., J. D. HEATON, M.D.,
Treasurer to the Council of the Leeds School of Medicine.
Claremont, Leeds, November 1868.

MEDICAL CLUB.

SIR,—I hope you will allow me, through the medium of your columns, to state, in reply to numerous correspondents, that it was decided, at the general meeting, not to increase the subscriptions of the original members. The formation of the guarantee fund will prevent the necessity of any increase of subscription; and, if every member could, during the ensuing year, introduce one new subscriber, the guarantors would not require to be called upon for any portion of the sums they have kindly promised to subscribe, in addition to their annual subscription, should such be found necessary.

I am, etc.,
December 1868. LORY MARSH, Honorary Secretary.

RIGHTS AND TITLES.

SIR,—Will you kindly inform me in your next publication—1. Can a M.R.C.S.Eng and L.F.P.S.Glasgow, registered, recover in county court for professional attendance and medicine in medical as well as in surgical cases? (Not in medical cases.) 2. Does the new Pharmacy Act interfere with his compounding his own prescriptions? (It does not). 3. Is he by courtesy called "Doctor"? (He has no claim to such a title.)

I am, etc., HENRY J. BLEWS.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Wiltshire County Mirror, Dec. 2nd; The Brighton Observer, Nov. 27th; The Japan Times' Overland Mail, Oct. 7th: The Marylebone Mercury, Nov. 28th; The Aberdeen Free Press, Nov. 24th and 27th.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Taylor, Derby; Mr. Morgan, Sunderland; Mr. Ralfe, Doncaster; Mr. Rigden, Canterbury; Mr. McConnell, Aberdeen; Dr. C. Oakley, Shrewsbury; Dr. Fenwick, London; Dr. E. Smith, London; Dr. Falconer, Bath; Dr. Styrap, Shrewsbury; Mr. Stanger, Nottingham; Mr. Trestrail, Luton; Dr. Ames, Boston (Highlands), Massachusetts; Dr. S. Gordon, Dublin; Dr. Medwin, Blackheath; Dr. Powell, London; Mr. Erichsen, London; Sir J. Ranald Martin, London; Dr. J. Rogers, London; Dr. Letheby, London; Dr. Heywood Smith, London; Dr. Farre, London; Mr. R. Dunn, London; Dr. Gillespie, Edinburgh; Dr. Hyde Salter, London; Dr. Habershon, London; Mr. Percival Leigh, London; Dr. G. Buchanan, Glasgow; Mr. Sergeant, London; Mr. Willett, London; Dr. McCall Anderson, London; Dr. Priestley, London; Dr. Macpherson, London; Mr. Coles, London; Mr. Horatio Stokes, Gibraltar; Mr. Clark, London; Mr. Grewcock, Nottingham; Dr. Hughes Bennett, Edinburgh; Mr. Napper, London; Mr. John Manley, West Bromwich; Mr. McNair, Osbournby; Mr. Trotter, Windsor; Dr. C. Black, Glasgow; Dr. Murchison, London; Dr. Dyce, Aberdeen; Dr. Durham, London; Dr. Dickinson, London; Dr. Broadbent, London; Mr. Ireland, Linton; Dr. Heaton, Leeds: Dr. J. Bell, Edinburgh; The Secretary of the Victoria Hospital for Sick Children, London; Dr. Greenhalgh, London; Dr. Church, London; Dr. J. Pursell, Brighton; Dr. F. J. Farre, London; Dr. W. Procter, York, Mr. J. Wood, London; Dr. Gee, London; Mr. Gaine, Bath; Dr. Wardell, Tunbridge Wells; Dr. B. W. Richardson. London; Dr. G. Shannon, Magherafelt, Ireland; Mr. Curling, London; Mr. Gooch, Eton; Dr. Pavy, London; Dr. Wolfe, Glasgow; Dr. Aitken, Edinburgh; Dr. Hilton Fagge, London; and Dr. Sieveking. London.

LETTERS, ETC. (with enclosures) from:—

Mr. T. Bryant, London; Dr. Belcher, Dublin; Dr. Kidd, London; Dr. Elliott, Hull; Dr. Beveridge, Aberdeen; Mr. F. M. Sims, London; Mr. James Lane, London; Mr. T. C. Deey, Dublin; Dr. Frain, South Shields; Mr. Slymann, London; Dr. Goodridge, Bath; Dr. Latham, Cambridge; Dr. Hayden, Dublin; Dr. Moore, Dublin; Dr. Barton, Dublin; Dr. Lory Marsh, Nottingham; Mr. Davis, Stoke-upon-Trent; Dr. Treutler, Kew; Dr. John Murray, London; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; The Registrar-General of England; Mr. T. M. Stone, London; Dr. Gardner, Box; Mr. J. N. Radcliffe, London; The Honorary Secretaries of the Ethnological Society Mr. Heckford, London; The Honorary Secretary of the Royal Medical and Chirurgical Society; Dr. Eastlake, London; The Registrar of the Medical Society of London; The Honorary Secretary of the Hunterian Society; Mr. Greenway, Plymouth; Mr. Wanklyn, London; Dr. Divers, London; and Dr. Belcher, Dublin.

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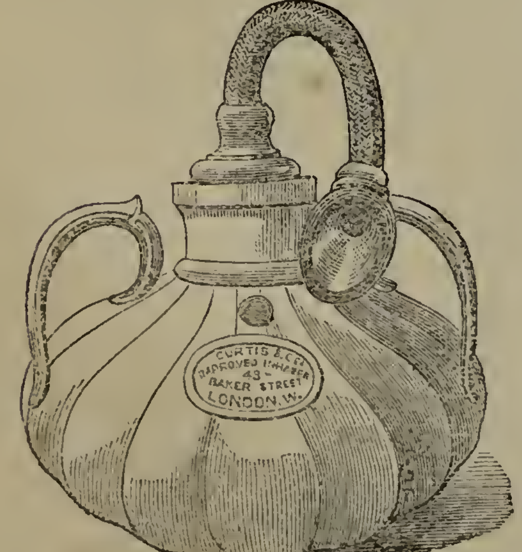

The Editor of the *Lancet* writes:—

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The Editor of the *Medical Times and Gazette* writes:—

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"This Inhaler seems to us to exemplify, in a very perfect way, the careful adaptation of means to the end desired. It is strong, portable, and well fitted, may be readily cleaned, and, what is most important, can be conveniently used by a patient when in a reclining position, as its shape permits it to rest on the pillow without the danger of upsetting. The objection to the use of Cork—namely, that it is liable to swell or contract—is obviated in this Inhaler by the substitution of an India-rubber Ring, fitted securely round the stopple. The tube is elastic, and is provided with a most convenient Mouth-piece. In the neck there is a perforated porcelain disc for supporting a sponge moistened with any preparation that may be prescribed for inhalation. The apparatus is, therefore, peculiarly well suited for the administration of Chloroform, Ether, Creasote, and other volatile substances. The air to supply the place of the vapour inhaled enters the Inhaler through two channels, and must pass through the liquid."—January 15, 1868.

CURTIS & CO., PHARMACEUTISTS, 48, BAKER STREET, LONDON, W.

AN ADDRESS
ON
MEDICAL EDUCATION.

DELIVERED AT THE
Dublin University Medico-Chirurgical Society.
BY

WILLIAM STOKES, M.D., D.C.L.,
Regius Professor of Physic in the University of Dublin.

THE duty of moving that the address of the Auditor be printed has devolved upon me; and I rise to perform it most willingly, most gratefully, and, judging from the past, with the best anticipations for the future usefulness of this Society.

At the inaugural meeting of the University Medico-Chirurgical Society, Dr. Jellett spoke eloquently, because earnestly and with a full knowledge of the subject, on the advantages which the institution of such a Society as ours must afford, not to the University School alone, but to the cause of Medicine at large—a means the more of advancing the great desideratum of the self-instruction and the mutual instruction of the students. He spoke that which he knew, and therefore his words remain engraven in our memories.

The address of the Auditor is properly held not to be made the subject of debate; and I pray of him, and of you, to believe that what I am about to say is not conceived in that spirit of criticism so unwholesome, and yet so facile, which consists only in taking exceptions and pointing out shortcomings. This, as I have said, is a ready method; for, when the pseudo-critic has nothing else to say, he may always avail himself of Goldsmith's formula, "The work might have been better, if the artist had taken more pains."

But this address, putting aside its philosophical and temperate tone, and the marks of judgment based on experience and reflection, has this peculiar value, that it expresses, and for the first time, the views of one who is still a medical student (I use the term in its ordinary sense); and his views as to professional training, which correspond with those of some of the best thinkers of the day, are to be received with all respect and consideration.

In speaking of school-training, he eloquently said that "it is not the mere actual amount of knowledge acquired during these early years of ours, neither the number of books read, nor even the information derived from them, that will alone be conducive to success; far more the habits which our studies imperceptibly lead us into, the new powers with which we thence are gifted, the moral discipline which results in the production of those virtues and mental qualities which mark the true gentleman,—these rather shall lead us to higher eminence and esteem among our fellow-men."

Yet that these views will apply to professional as well as to what has been called preliminary education, we may believe that the orator will admit. This term—preliminary education—is no favourite of mine. At least, I have heard so much of it in the Medical Council as to make me rather sick of it. It is one of late growth, and, I think, born North of the Tweed. What does it imply? Why this: that, at the time of its adoption by the Medical Council, Colleges of Surgeons and Physicians were in the habit of admitting to their licence men who, as far as they knew, might have received no literary education at all. And that, in many cases, they were strangely illiterate, is undeniable. It will so continue, as long as these Colleges take upon themselves the duty of testing the general knowledge of the student.

But what, in most cases, notwithstanding the debates and the rules of the Medical Council, what, I ask, is the meaning of the so-called preliminary education, as tested by bodies who have an interest in the admission of the candidate? It means the possession of such a minimum amount of knowledge, crammed into the mind of a previously uncultivated boy, as will enable him to pass the preliminary examination of some of our multiplied licensing bodies. So far as letters are concerned, the preliminary is to him the final examination. He has then done with letters, and takes to bones; and the system is but a fallacy, a delusion, and a snare.

Yet that the habits, deportment, and attainments, of the medical students—at least, in this country—have remarkably advanced, must be admitted. Much of this may be attributed to the large and increasing infusion of University men in the general class; and it may be partly due to an improvement in our school training; but I have yet to learn that, in any great measure, the so-called preliminary examinations have had much to do with it.

The defective system of education in many of our schools has been touched on by our learned Auditor, who suggests that there should be more or less special school training for boys destined for the profession; so that, when they come to medicine, they should have been instructed in mathematics, mechanics, natural philosophy, and natural history. No doubt such additional instruction—at least, in an elementary way—would be desirable for all the boys. Yet are our schools commonly in a position to effect it? And there is the danger which attends all special curricula, that, having been gone through, we hear no more of them or of their subjects. This is easily understood; they have served their purpose, and too often are dropped by the student when he obtains his license. No question our school education might be modified with advantage; but there is a fitness in things, and we should be careful not to overload the mind of a boy with studies that require the faculties of the man. It is like the system of giving scientific toys and science-made-easy books to children, when they would be better employed in playing at ball, or hide-and-go-seek, or reading some such wholesome books, as *Jack the Giant-Killer*, *Puss in Boots*, or the *Arabian Nights' Entertainment*.

I think the world has gone astray on the subject of education, whether for a boy at school or a student in the theatre. What a boy wants in school, what the young man wants in his after-studies, has been well indicated by our Auditor: association with his fellows; the friction of mind against mind; the feeling of honourable rivalry; the study of that most valuable book to him, which I do not see in any curriculum—namely, himself. Education has been well described as good "if it teaches us what manner of men we are; next, where we are going; and, lastly, what it is that is best for us to do under the circumstances."

The auditor has alluded to the Teacher's Association. I am very imperfectly acquainted with the views of that body and, so far as professional education is concerned, some of their opinions may be correct, but I fear that their deliberations are more directed to the special than the general education; and, therefore, while I to some extent agree in their views as to the freedom of the student, the giving him the power and the opportunity of teaching himself, I fear that, if their measures tend to delevope the special in preference to the general culture of the mind, they will but perpetuate the inferior status of the profession.

I have now been a clinical teacher of large annual classes for many years, and I can form a judgment on the comparative merits of those young men who have had a complete or even a partial university training, and those who have not had that great advantage; and I can affirm, that by far the greatest proportion of our distinguished students, men who are examples to their fellows, men of whom a six months' experience in hospital would enable me to predicate their success in life, and that they would occupy an honourable place in their profession, were of the former class. The public believe that instruction in anatomy and chemistry, in surgery and medicine, will make a surgeon or a physician. Instruction is not education. We might as well believe that the possession of a case of instruments would make a surgeon.

Instruction succeeds in making a qualified man *in the legal sense*, but in a larger sense he may be, and too often is, an utterly unqualified man—unqualified in medicine, unqualified in surgery, and deficient in the tastes, the mental culture, and the habits which would enable him to take a proper place in society. So strongly do I feel in this matter—and I have long since publicly spoken of it—that it appears to me that, with a proper basis of general mental culture, at least equal to that of the educated classes at large, the public safety would not only be ensured but increased, by simply affording to students full opportunity for every branch of medical study and observation coupled with tutorial teaching, while, in many cases at least, the terminal examination might profitably be dispensed with.

Sir, I must conclude; but, before doing so, I may be allowed to congratulate the Members of this young but already noble Society, on the success of their first session, heralded by the profoundly philosophical address of Mr. Collins, and again to offer the expressions of our gratitude to the heads of the University for the encouragement they have given us, and for the steady continuance of those enlightened measures which, while they have made this School of Medicine and Surgery second to none, have been so largely the means of maintaining the social status of the profession at large, and more especially in Ireland.

REMARKS
ON
SOME CASES OF INFLAMMATION OF THE BREAST SIMULATING CANCER.

By THOMAS BRYANT, F.R.C.S.,
Assistant-Surgeon to Guy's Hospital.

THE majority of surgeons of the present day are disposed to believe that an operation for cancer of the breast should be undertaken as soon as the nature of the disease has been clearly decided; for it seems tolerably certain that a woman has a better chance of being cured of the affection, if I may use such a term, or of being rendered free of the disease for a more lengthened period, by an early operation, than by one undertaken when the cancer has existed for many months, or has undergone degenerative changes, when, too often, secondary deposits have taken place in the absorbent glands, or it may be in other parts. The diagnosis of a cancer of the breast in its early stage is consequently a subject of great importance, and the differential diagnosis between it and other affections for which it has been and may be again mistaken becomes a matter of some interest. I propose, therefore, in the following brief communication, to consider the differential diagnosis of cancer of the breast and chronic inflammation of the gland, for it is between these two classes of cases that the greatest diagnostic difficulties are encountered and the gravest errors in practice fallen into; for who has not known a chronic inflammation of the breast-gland mistaken for a cancerous affection, or a chronic abscess of the breast removed for a cancerous tumour? Under these circumstances, the following cases of inflammation and suppuration of the breast appear worthy of record; for in their clinical aspect they displayed symptoms which are not uncommonly found to be connected with cancerous affections—such as a retracted nipple, adhesion, puckering, or cupping of the skin to the parts beneath, and enlarged axillary absorbent glands. They clearly point out the value and necessity of closely inquiring into the history of a case before making a diagnosis, and the wisdom of not laying too much stress on the presence or absence of any single symptom. A true scientific diagnosis, resting upon a correct appreciation of the value of symptoms—taken in the order of their appearance and in their different combinations—for a single symptom, uncombined with others, is of small value when considered by itself, although when combined it may be of primary importance; for symptoms can only be interpreted correctly by the aid of others with which they are associated.

CASE I. *Chronic Abscess in the Breast with a Retracted Nipple.*—Ellen D., aged 39, a married woman, the mother of three children, the last *eight* years since, came under my care at Guy's Hospital, on April 1st, 1867, with a swelling in the left breast of two months' duration, and a retracted nipple. The tumour occupied the axillary half of the mammary gland; it was hard to the hand, and doubtfully elastic; it clearly was an infiltration, of some kind, of the gland-tissue. The nipple had become drawn towards the axilla since the swelling first appeared, and the breast was the subject of a sharp pain, there was no external sign of inflammation whatever, and no increase of heat. The axillary glands were, however, uninvolved. A correct diagnosis of the case at this period of the disease was clearly difficult. The age of the woman, the fact that the breast-gland had ceased to be active for eight years, the infiltrating character of the disease, and the retraction of the nipple, were amply sufficient to render the opinion probable that the disease was cancerous; and yet all these symptoms were quite compatible with a simple affection, and, as the result proved, were due to such. For in two weeks the skin over the tumour had become involved and glued to the parts beneath. Some slight redness of the integument also appeared. In another week, an abscess was opened, and several ounces of pus escaped. On May 15th, six weeks after her coming under my care, and about four months after the first appearance of her symptoms, she was discharged cured. The nipple, however, remained somewhat retracted.

CASE II. *Chronic Inflammation of the Breast Simulating Cancer.*—Eliza W., aged 34, came under my care at Guy's Hospital, on June 6th, 1867, for an affection of the right breast of nine months' duration. It had appeared after a blow. The whole gland was involved in the disease, and was much swollen, being clearly infiltrated with inflammatory or other products. The nipple was completely drawn in, and out of sight. The skin also was fixed to the parts beneath, and brawny. Manipulation of the part caused some little pain. The axillary glands were somewhat enlarged and tender. There was no perceptible increase of heat in the part. Judging from the symptoms alone, there might probably have been some little difficulty in forming an opinion in this case, for a gradual enlargement of the breast for nine months, an infiltration of the skin, retracted nipple, and enlarged axillary glands are such symptoms as are constantly found to exist in cancer of the breast. An inquiry into the history of the case, however, put an end to all doubt, for it was elicited that the woman had been confined twenty-one months previously, and had been suckling up to the time when she received the blow. The subsequent course of the case proved the disease to be simply inflammatory; for, under tonic treatment and cooling local applications, all the inflammatory thickening and infiltration gradually disappeared, and in two months she left cured.

CASE III. *Chronic Abscess in the Centre of the Breast, simulating Cancer in its Local Symptoms.*—Mrs. R., aged 37, a married woman with one child three years old, came under my care at Guy's Hospital on May 13th, 1867, for a swelling in her left breast of six weeks' standing. The tumour was placed in the centre of the mammary gland; it was firm to the feel and indistinctly fluctuating; manipulation caused pain; the skin over the part was healthy and quite mobile. The nipple had retracted during the last three weeks. There were also enlarged axillary glands. The diagnosis of this case was very obscure, for such a combination of symptoms as I have just detailed are seldom present except in cancer. On April 11th, however, one month after her first visit to me, it came out that she was pregnant about three months. The tumour by this time had been much enlarged, and fluctuation had become more distinct. For diagnostic purposes, therefore, a grooved needle was introduced into the centre of the growth, and pus escaped. The abscess was accordingly freely opened, and a rapid recovery took place.

CASE IV. *Chronic Abscess in the Breast, simulating Cancer in its External Symptoms,*—Lavinia W., aged 39, a single woman, came under my care on November 22, 1866, for a tumour, of the size of a walnut, above the areola of the left breast. It had existed for many months, and had appeared slowly. It was the seat of a chronic pain. The nipple was completely retracted, and the skin over the tumour was puckered and adherent to the parts beneath. The axillary glands were apparently sound. The symptoms thus tabulated were such as are very commonly found in cancerous disease; and the fact of the patient being a single woman, and about 40 years of age, tended to encourage such an idea of the case. An inquiry, however, into the history of the disease cleared up the doubt; for it was discovered that the retraction of the nipple had been a congenital condition, and the puckering and adhesion of the skin to the surface of the tumour were due to the cicatrix of an abscess which had attacked the breast twelve years previously. The tumour in the breast was a chronic abscess, which was subsequently opened, and a good recovery ensued.

CASE V. *Chronic Inflammation of the Right Breast, simulating Cancer: Recovery: True Cancer of the Left Breast one year later, and Death.*—Susan W., aged 48, a married woman with one child 22 years of age, came under my care at Guy's Hospital on November 27th, 1865, for some affection of her *right* breast. It had existed for two months, had come on gradually without any known cause, and was the seat of a dull aching pain which passed down the arm. The skin over the part was also cupped, and slightly adherent to the gland beneath. The axillary glands were quite healthy. To the hand, the swelling was clearly due to an infiltration of the mammary gland. The local symptoms in this case, as in the last, tended to indicate the presence of a cancer; the age of the patient likewise went to support the idea. The history of the patient, however, did away with such an opinion; for it was discovered that the cupping of the skin was due to the cicatrix of an old abscess which had existed twenty-two years previously. Under tonic treatment this patient rapidly recovered, all induration of the breast disappearing. It is interesting to observe, however, that this patient reappeared one year subsequently with a genuine cancerous disease of the *left* or opposite breast, which went on rapidly to develope and to destroy life.

CASE VI. *Chronic Induration and Suppuration of the Breast simulating Cancer, in a Woman aged* 64.—Hannah N., a married woman aged 64, came under my care at Guy's Hospital in October, 1859, for some affection of her right breast. It had been coming on for about six weeks, the glands having become gradually hard and painful. When I saw her, the breast was generally much indurated and formed a globular firm swelling; manipulation caused some pain. The nipple was slightly retracted. The axillary glands were free from disease. The skin over the tumour was mobile and healthy. The tumour moved freely upon the parts beneath. The local symptoms, together with the age of the patient, and the total absence of any external signs of injury or history of accident, were enough to excite the idea of the tumour being cancerous; but it was not so; for in about a week pus escaped from the nipple, and, in another, fluctuation was felt deeply seated below the nipple. The abscess was opened, and in about a month a good recovery ensued.

CASE VII. *Chronic Inflammation of the Breast in a Single Woman, simulating Cancer.*—Ellen A., aged 56, a single healthy woman, came under my care at Guy's Hospital on July 3rd, 1865, for some affection of her left breast. It had been coming on for about three weeks without any known cause; the breast gradually becoming hard and painful. When I saw her, the whole gland was infiltrated with some new product, inflammatory or otherwise. It was indurated and tender on manipulation. There was no enlargement of the axillary glands. The nipple was completely drawn in, and out of sight. The skin over the breast was healthy and the tumour moved freely upon the parts beneath. The case was one of a doubtful kind; the age of the woman and the local symptoms raised a suspicion of its being of a cancerous nature, and yet its progress had been somewhat too rapid for the generality of such cases. On inquiry, also, it was found out that the retracted nipple was a congenital condition. Tonics were given and the case watched. In a fortnight distinct evidence of inflammation of the skin appeared with indistinct fluctuation. In another week an abscess was opened, and rapid convalescence followed.

CASE VIII. *Chronic Abscess in Breast with Retracted Nipple.*—Sarah M., a childless married woman aged 20, came under my care at Guy's Hospital on December 30th, 1863, for some enlargement of the left breast. It had been gradually coming on for eight months, after a blow. The swelling was accompanied with a dull pain, and the gradual retraction of the nipple. When I saw her the breast was clearly much enlarged, the whole gland forming a firm semi-elastic tumour; the nipple had completely disappeared. The skin over the tumour was healthy, as were the axillary glands. The gradual enlargement of the breast with the retracted nipple might probably have induced a surgeon, who put too much value in such symptoms, to suspect a cancer, although the age of the patient and the history of a blow forbad the entertainment of such an idea. The case turned out to be one of a chronic abscess. It was opened, and a good recovery took place.

CASE IX. *Chronic Inflammation of the Breast simulating Cancer: Recovery.*—Mary R., a married woman aged 41, the mother of nine children, came under my care at Guy's Hospital on August 25th, 1864, for some affection of her right breast. It had been coming on for about nine months, and was accompanied with pain. The gland had been gradually becoming larger and harder, and the nipple had been slowly retracting. When coming under observation, the breast appeared as a firm globular enlargement and the nipple was quite out of sight. The tumour moved freely upon the parts beneath, and the skin over it was quite free. There was no enlargement of the axillary glands. The age of the woman and the general appearance and condition of the breast indicated the presence of a cancer; and to those who looked upon the retracted nipple as a definite sign of such a disease, the diagnosis would have been complete. On inquiry, however, into the history of the case, it was elicited that the induration of the breast had gradually appeared after her last confinement, in which she lost her child, nine months previously; and that the possibility of the disease being of a chronic inflammatory nature was rendered probable. This view of the case turned out to be the right one; for in the course of one month an abscess appeared which was opened near the nipple, and in three months a recovery was declared. The nipple, however, continued somewhat retracted.

CASE X. *Chronic Abscess with Retracted Nipple, successively attacking both Breasts; Recovery.*—Rachel B., aged 28, came under my care at Guy's Hospital on November 10th, 1864, for some affection of her right breast. She was a childless married woman. The disease had been coming on for several weeks with induration and enlargement of the breast; the nipple gradually going in. No cause could be assigned for its appearance. When seen, the breast appeared as a globular tumour, in the centre of which was a depression or fossa containing the nipple. The tumour was movable and hard, indistinctly fluctuating. The skin over it was healthy. The age of the woman, only twenty-eight, rendered the idea of its being of a cancerous nature improbable, and, at the same time, suggested the probability of its being inflammatory. An exploring needle was consequently introduced, when pus escaped. A free opening was consequently made, giving exit to several ounces of pus, and a good recovery took place. The nipple, however, remained somewhat retracted. This patient came under my care again on February 1st, 1865, with the same affection of the left or opposite breast, which had appeared in the same insidious way and ran precisely the same course. It was treated in a like manner, and good result followed. On May 21st, the nipples were still drawn in.

REMARKS.—There would be no difficulty in quoting other cases to illustrate more fully the subject of this communication; but I trust I have brought forward sufficient to indicate the quarter in which some of the difficulties of diagnosis are to be found, and the means by which errors of diagnosis are to be avoided. I have pointed out how, in cases of chronic inflammation of the breast-gland, nearly every local symptom found in cancer may be simulated; and how necessary it is for the surgeon to make a careful inquiry into the history of every case, to understand how each symptom is produced, and to weigh the value of every point before giving a diagnosis. I think that I have demonstrated that local symptoms will constantly mislead when taken by themselves, and that they can only be correctly interpreted by the antecedent points connected with their history. In all the examples of disease which I have just brought forward, the surgeon would doubtless have been misled, had he trusted to local symptoms, and had he failed to inquire into the facts touching the history of the cases from an early period; for, in many of the examples, the symptoms which appeared characteristic of cancer turned out fallacious, and were due to either a congenital condition of the parts, or to an old or recent inflammatory affection.

I trust I have also demonstrated, by the quotation of cases, the value of an exploratory puncture with a needle into the centre of certain cases of tumour, when the nature of the disease is doubtful. In cancerous cases, the puncture will do no harm; in inflammatory cases, it will dispel the doubt. It will often turn doubt into certainty, and save errors of diagnosis as well as of practice.

By way of conclusion, I will observe that *cancers* generally attack the breasts of women during the functional decline of the mammary gland, that is, after forty years of age, and *inflammatory* affections, during the period of its functional activity; that nearly every local symptom of cancer may be simulated by chronic inflammation of the breast; and that the careful consideration of the history of the case will alone enable us to escape error. In all cases of disease of the breast, let it be therefore our rule to inquire into the history of the case, and the gradual development of the symptoms, before giving a diagnosis; and, in certain doubtful cases, let it be our practice to explore the tumour by means of a needle before giving an opinion, and certainly before we act upon it.

By adopting, or rather acting upon, these suggestions, we shall often be saved from serious errors; we shall render our practice more certain, and consequently more successful.

It is true that what I have just stated is not new; it has been recognised by all surgeons, and practised by most. But still it is not recognised as fully as it deserves, nor is it practised as freely as it ought. If the cases I have brought forward have any influence in reminding us of what we have sometimes neglected, or in urging us to do what we cannot fail to recognise to be right, my object will have been obtained; for in our profession, as in many others, the old saying is too true, "That more error is wrought by want of thought, by far, than want of brains."

REMARKS ON VILLOUS TUMOUR OF THE RECTUM,

AND THE RESEMBLANCE THAT IT MAY BEAR IN ITS SYMPTOMS TO CHRONIC DYSENTERY; ILLUSTRATED BY TWO CASES.*

By H. M. TUCKWELL, M.D.,
Physician to the Radcliffe Infirmary, Oxford.

CASE I.—P. S., a man, aged 70, was admitted into the Radcliffe Infirmary on November 22nd, 1866, with the following history. He had suffered for half a year from diarrhœa; the bowels acting from twelve to twenty times in the day, with much straining and pain in the lower part of the back and bowels. The motions were reported to be very scanty, consisting chiefly of slime and blood. He had never been abroad. The man had a sallow cachectic appearance, and a feeble pulse. Nothing abnormal could be detected in any part of the body, with the exception of tenderness on pressure in the left iliac fossa. An examination of the rectum enabled me to feel a small pile just within the sphincter, but nothing else. He continued under observation till December 9th, getting temporary relief from remedies—castor-oil in small doses, Dover's powder, and, especially, opium injections; but the diarrhœa returned without fail after one or two days' cessation, so that he would have seven, ten, or twelve stools in the day, with severe tenesmus and intense pain in the lower part of the back. The stools consisted, during this time, mainly of bloody mucus and a bloody fluid. Occasionally, after a dose of oil, there would be some fæcal matter in addition, but blood and mucus always predominated. The diagnosis—chronic dysentery—made at first, seemed to be confirmed by the daily progress of the case. On the 10th of December, the eighteenth day of observation, he complained more of pain diffused over the whole abdomen, which was everywhere tender on pressure. He began to vomit; his temperature rose; and he had a pulse of 120. These evil symptoms increased on the two following days, and he died on the 13th of December, as was supposed, of peritonitis consequent on perforation of a dysenteric ulcer. The autopsy showed intense general peritonitis, but no trace of ulceration. The mucous membrane of the intestine was healthy from the duodenum to the end of the sigmoid flexure. But, extending from about four inches above the anus to the sigmoid flexure, was a vascular villous growth, sprouting from the posterior wall of the bowel and partly filling up the bowel's calibre. The base of the growth was dense and much thickened by an increase of connective tissue; but, at its very centre, it had apparently softened, and the gut was there perforated by a small opening which led into the pouch formed by the recto-vesical fold of the peritoneum. Below the tumour, the bowel was, with the exception of a small hæmorrhoid just within the sphincter, healthy. There was no enlargement of the adjacent glands, nor disease of any other organ in the body. Portions of the tumour, examined microscopically, were found to be composed of numerous processes or offshoots, shaped like a club or flask, and sprouting from a common stalk. Each of these contained abundant small round, or ovoid, cells, with nuclei, and was covered externally with the columnar epithelium of the rectum. Neither in the villous processes nor in the thick basis-substance of the tumour could any cells with large nuclei, like those commonly met with in cancerous growths, be found. One or two bloodvessels could be traced running up into many of the villi.

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* Presented to the Surgical Section at the Annual Meeting of the British Medical Association i Oxford, August 1868.

CASE II.—A. B., woman, aged 46, was admitted into the Infirmary, on February 13th, 1867, on account of her very sallow cachectic appearance and œdema of her legs. Her intellect was so feeble that no history could be obtained from her; and no complaint was made of pain, diarrhœa, or other symptom. With the exception of an occasional intermission of her pulse, nothing abnormal could be detected till after she had been in the hospital for twenty-four hours, when the nurse, observing that she went very frequently to the closet, made her pass her motions in a night-stool. These were now seen to consist mainly of bloody fluid and mucus with a small quantity of fæcal matter. On examining the rectum, I found the bowel unusually large and capacious just above the sphincter, but could feel nothing else abnormal. As the purging of blood and mucus continued unchecked by remedies, I concluded that this was either a case of chronic dysentery, or one of villous tumour of the rectum like that which had occurred to me in the previous year. Remembering how, in that case, the tumour lay just out of reach of the finger, I waited till after an evacuation had taken place, and then again examined the bowel. I now felt distinctly, on carrying the finger upwards and backwards as high as it could reach, a cluster of soft pendulous growths of various sizes protruding from the posterior wall of the bowel, and had no hesitation in making the diagnosis—villous tumour of the rectum. She became gradually worse; the tenesmus at last being so severe that on one occasion the bowel was prolapsed sufficiently to bring into sight some of the villous processes belonging to the tumour. On March 22nd, five weeks after admission, a sudden change set in: her temperature rapidly rose; her pulse became very frequent; and she passed repeatedly in the bed very offensive bloody and slimy discharges like the washings of putrid meat. She sank on March 25th. The autopsy disclosed a condition of the rectum identical with that in the preceding case, so that the description of the one will do for that of the other, with this single exception—that whereas, in the preceding case, a perforation had taken place into the peritoneum, in this instance the bowel had given way immediately below the recto-vesical pouch, and a very fetid abscess, of some size, had formed in the thick connective tissue between the posterior wall of the rectum and the sacrum; the peritoneal cavity being uninvolved. In both lungs, but especially the right, were several superficial secondary abscesses surrounded by a halo of inflammation. At the base of the left was a patch of recent pleurisy. A microscopical examination of any one of the villous out-growths which float out in the cavity of the intestine shows them to be composed of numerous small, conical, club or flask-shaped processes, which sprout from a stalk, are filled with small round or oval nucleated cells, and are covered with columnar epithelium. Neither in them, nor in the thick base of the tumour, can any elements like those ordinarily met with in cancer be found. One or two large bloodvessels may be seen running up and forming loops in each villus. (See Museum Specimen, 414*a*.)

The principal points which seem here to be worthy of a short comment are as follows. 1. The close resemblance which the disease in question may bear in its symptoms to chronic dysentery. In both, we have a very frequent action of the bowels, with great tenesmus, pain in the back, and pain in the left iliac fossa and lumbar region. The stools in both are bloody, slimy, and consisting at the last of fetid watery discharges like the washings of putrid meat. In both, there is a peculiarly sallow cachectic appearance. The only means, as far as my observation goes, of arriving at a correct diagnosis, is the examination of the rectum: and the chief practical interest which I hope to have been the means of conveying to the Association, in troubling it with a recital of these cases is this—that such an examination must be conducted with unusual care, *directly after there has been an action of the bowels, and when, with the violent downward straining present in this disease, the villous processes are forced down within reach of the finger.* Without such precaution, I submit that a mistake like that made by myself might happen to any one who had never met with a case of the kind. For, be it remembered, there was no stricture to be felt, as in ordinary malignant disease of the rectum, nor was there, as sometimes happens in this form of intestinal tumour, any symptom of obstruction even to the last, to guide one.—2. The occurrence of death by perforation in both instances. There seems to be, in all these localised villous growths of the intestine, coincidently with the villous formation, a considerable hypertrophy of the subperitoneal connective tissue, by which the floor of the tumour is much thickened. At a later stage, a process of softening, apparently by fatty degeneration, may take place in this floor; and, as in the instances here related, lead to perforation of the bowel.—3. The absence of cancerous elements in the tumour itself, or in the adjacent glands, or in distant organs. Hence the term "villous tumour" is employed rather than that of "villous cancer." This is equally the conclusion arrived at by the large majority of those who have published observations of similar cases. For, though it cannot be denied that there is such a disease as villous cancer—that is, an undoubted cancerous infiltration of the stomach or intestines, with this peculiar villous hypertrophy superadded—yet the villous tumour of the intestines and bladder has ordinarily neither the structure nor the characters of cancer.—4. The occurrence, in Case II, of secondary abscess in the lungs rather than in the liver. The source of blood-poisoning, being seated in the connective tissue outside the bowel, not in the wall of the bowel itself, was in direct connection with the vena cava, not with the vena portæ.

PUERPERAL CONVULSIONS.

By HENRY E. EASTLAKE,

Fellow of the College of Physicians, Dublin, etc.

THE following three cases of puerperal convulsions occurred in my practice during the last four months of 1867. They all terminated satisfactorily, and each case possesses certain points of interest.

CASE I.—About 4 A.M., on the 21st of September, 1867, I was requested to visit Mrs. H., aged 22, the wife of a medical man, who had just been seized with a violent convulsion. She had been delivered of her first child, a fine girl, about ten hours before my arrival. Dr. Greenhalgh had attended her, and had used forceps on account of the labour being unduly prolonged. Dr. Greenhalgh was unable to go to the patient on the occurrence of the convulsion; and I was therefore desired to attend in his stead. I found that she was unconscious; her respiration was stertorous, and the pulse very frequent, small, and compressible; the pupils were dilated; the head and skin generally were intensely hot; her tongue had been rather severely bitten. I passed the catheter and drew off a moderate amount of urine, which I found afterwards to be albuminous. I ordered ice to be applied to the head, and sinapisms to the calves of the legs and soles of the feet. Within half an hour of my arrival she had another fit, which was characterised by all the markings of true eclampsia. Her husband agreed with me in thinking that venesection was contraindicated. I advised that ten grains of calomel should be placed on the dorsum of the tongue, and that this should be followed up by a scruple of the compound powdered jalap in a couple of hours. An enema containing a half an ounce of oil of turpentine, and an ounce of castor-oil, in a pint of gruel, was also administered. Dr. Greenhalgh kindly met me in consultation in the course of the morning. He approved of the treatment which had been adopted. As the convulsions still continued, however, on an average every hour, it was agreed that six leeches should be applied to each temple. Soon after noon a very prolonged and violent convulsion took place, and between 4 and 5 P.M. two occurred in such rapid succession that scarcely any interval was perceptible. Dr. Greenhalgh then suggested dry cupping at the nape of the neck, and this was followed with the happiest results. The fits ceased entirely, and the patient was soon restored to consciousness. She had in all thirteen convulsions. Her convalescence was most satisfactory; within ten days she was able to sit up and eat a hearty meal.

CASE II.—On the 18th of November, at 10 A.M., I was desired to see Mrs. S., aged 33. She was the patient of a medical man who was unable, from illness, to visit her himself. This was her fifth confinement.

I found her in a violent convulsion, and was told that she had had about eighteen fits during the night. The first occurred at eight o'clock on the preceding evening. On examination *per vaginam*, I found that the os uteri was about the size of a crown-piece, and somewhat rigid. The uterus possessed the *anterior obliquity* to such a marked extent, that the os was situated very far back in the pelvis. The membranes were entire; and the brow presented. The patient had bitten her tongue; I desired the attendant to place something between the teeth on the approach of the next convulsion. I passed the catheter and drew off a great quantity of urine, which was so albuminous that it solidified with heat and nitric acid. The pulse was 130, weak and compressible. The head and the whole surface of the skin were intensely hot. I proceeded at once to rupture the membranes, and then left her in order to get instruments for the purpose of delivery. On my return, about an hour afterwards, I learnt that she had had another fit. No fœtal heart was audible on careful auscultation by myself and Dr. Basan, the present House-Surgeon of the St. Marylebone Dispensary, who kindly accompanied me. I now introduced the whole of my left hand into the vagina, and tried to dilate the os uteri with the ends of my fingers. Her body became very much convulsed. I therefore desisted for a while, and asked Dr. Basan to give some chloroform. The anæsthetic had the effect of producing some amount of relaxation of the uterine orifice. Having again introduced my left hand into the vagina and my fingers as far as I was able within the os, I perforated the head just above the orbit; having enlarged the opening, I removed the bulk of the cerebral mass, and, fixing the crotchet within the posterior portion of the cranium, I extracted the head within ten minutes. The body soon followed, and the placenta also. There was no hæmorrhage. Before we left the room, which was about noon, the patient was again slightly convulsed.—11.30 P.M. Four fits occurred between noon and seven o'clock. I had recourse to the same medicinal treatment as in the previous case, including leeches to the temples and dry cupping; and, although the convalescence was slow, it was perfectly satisfactory.

CASE III.—Mrs. A., aged 26, primipara. This case occurred in the British Lying-in Hospital. I first saw the patient about 2 P.M. on the 9th of December. I was informed that she had been subject to epileptic fits; she had also been in the Hospital for Women, in Soho Square, for some uterine disease. On examination *per vaginam*, I found the fœtal head presenting in the first position; the os uteri was fully dilated; the waters had escaped about seven hours. The head was midway in the pelvis; the pulse was 90 and of fair strength; the fœtal heart was distinctly audible in the left iliac region. A little before 8 P.M. I received an urgent message to visit this patient at once. I found that she had had one fit of convulsions; the pulse was now over 100, the fœtal head had advanced but little, the ear nearest the os pubis could, however, be reached. Having emptied the bladder by means of the catheter, I at once delivered her of a fine living male infant. The placenta followed in a few minutes; there was no hæmorrhage. About a quarter of an hour afterwards, she had another distinct convulsion. On testing the urine, I found that it contained albumen. The medicinal treatment pursued was very much the same as in the other cases. There was, however, no necessity to have recourse to leeches or even dry cupping. I was told by the nurse in attendance that the patient had a slight convulsive fit on the 16th of December, exactly a week after the birth of her child. She shortly afterwards left the hospital, well, and in good spirits. Although formerly epilepsy was supposed to be a predisposing cause of puerperal convulsions, the experience of Drs. Hardy and McClintock and others prove that such is not the case; indeed, it is a rare occurrence for epileptics to be attacked with puerperal convulsions. This third case, therefore, may be considered one of interest on this account.

SANGUINEOUS EFFUSION INTO THE PONS VAROLII:

PARTIAL RECOVERY: DEATH FROM EFFUSION INTO ONE VENTRICLE.

By JAMES RUSSELL, M.D., F.R.C.P., Birmingham.

THE following is the sequel of the case to which I made a brief reference in the JOURNAL of October 24th.

I may premise that the original attack, as described by the patient's friends, occurred last May twelvemonth. It was characterised by sudden insensibility and convulsive movements of the left side. The left side of the face also was "drawn". The patient perfectly regained consciousness, but remained with imperfect paralysis of the *left* limbs and of *all* the muscles supplied by the *right* portio dura. I have already described the paroxysms of recurring congestion of the right eye to which she became subject. She was attended by my friend Mr. Hickenbotham, who was again summoned to her suddenly at the beginning of this week. He found her speechless, but quite conscious, earnestly endeavouring to form words. A few hours afterwards, she was quite unconscious, and died within twenty-four hours of her seizure. Her age was 42.

I saw her twice during her illness, and am indebted to Mr. Hickenbotham for the opportunity of witnessing the *post mortem* examination. The head only was allowed to be opened. The morbid appearances were the following. A narrow irregular slit existed at the upper part of the right side of the pons, about one-third of an inch in length. Close to it, possibly communicating with it, were two small passages, about half a line wide and twice that length, burrowing across the septum of the pons. There was a faint yellow staining in the surrounding tissue. The tissue of the pons was firm, and there did not appear any wasting of the right half. The medulla oblongata and crura were healthy. The root of the seventh nerve was not lessened in bulk. The right cerebral ventricle contained about an ounce and a half of loose fresh coagulum. The outer half of the corpus striatum and thalamus, and the cerebral tissue enclosing the ventricle on the other side, were broken down, converting the ventricle into a large irregular cavity. The septum lucidum was preserved, and the left ventricle contained only some clear colourless fluid. The arteries at the base of the brain were unusually stiff and patulous; both the trunks and the primary branches were spotted with thickened patches, very visible in their interior aspect. In all other respects, the brain and its membranes were healthy.

I may add to the comments suggested by the recurring attacks of congestion of the eye in this case, the observation that, in hæmorrhage into the pons, even though, as in this case, of very limited extent, unconsciousness attends the commencement of the attack, together with convulsions; whilst a much larger quantity of blood may be poured into the substance of the hemisphere without inducing *primary* loss of consciousness. Trousseau asserts that "apoplectic stupor is a very exceptional symptom of invasion in cases of cerebral hæmorrhage, unless there be lesion of a central part, on an attack of convulsions." The contrast afforded by the two attacks in this case supports the accuracy of his assertion. Now, the occurrence of the insensibility together with convulsion in pons-hæmorrhage is a significant fact in relation to the ordinary explanation of an epileptic fit, to which the attack bears much resemblance. It seems to form a link of connexion with the disturbance in the condition of the conjunctival vessels noted in this case, and with the proptosis and change in the size and shape of the pupil observed under similar circumstances by Dr. Ogle. In making this remark, I am not unaware that the *contracted* state of the pupil which ordinarily attends the first occurrence of hæmorrhage into the pons is a circumstance not to be neglected in our speculations upon the subject.

NOTES OF A CLINICAL LECTURE ON STUTTERING AND STAMMERING.

By HOLMES COOTE, ESQ.,
Surgeon to St. Bartholomew's Hospital.

WE are occasionally consulted on behalf of patients troubled with one of those imperfections of utterance known by the familiar names of stuttering or stammering. All persons are not aware that between these two there is a difference more marked than may be supposed, and which will be understood by a reference to the etymology of the words.

The word "stutter" is derived from an old German word—"stoten" or "stossen", to toss. The modern word is "stottern", and implies to stutter, to falter, etc. It is not confined to faults of utterance. Thus you may say, "Ein Rad das stottert," a rickety wheel; you might say equally a stuttering arm or leg, but not a stammering arm or leg.

The word "stammer" comes from "stamm" or "stem". The word "stemmen" is synonymous with "anhalten", and implies to stop in the middle of a word—to utter the root, and not the terminal syllables. It is children who "stammer", when they first begin to talk; they do not "stutter". To stammer means an interruption of words or syllables; to stutter is to falter in any way, and repeat. "Dieses Kind fängt an zu stammeln," "This child is beginning to stammer;" or "Mit stammelnder Zunge etwas zu sagen," "to say anything with a stammering tongue," means that the child says part of the word, and lolls out the rest; so that "stammeln" and "lallen" are sometimes used synonymously. To give one familiar example: a stammering child would say, "There is a-a-butter-er-er-er-fly." A stuttering person would say, "Th' th' th' at is a bu-bu-bu-butterfly." But, as I have said, you may speak of a stuttering wheel or a stuttering limb, although it is inelegant.

You will ask, What is the practical value of this knowledge? Well, you may cure stammering more frequently and more easily than stuttering. Stammering may proceed from timidity; from want of familiarity with the construction of sentences; from some temporary defect in the tongue, which will pass away with age. Hence it may be cured by patient instruction, aided by time. But stuttering implies a want of power to coordinate muscular action; and I fear we must seek its source (when "stuttering" is applied to speech) in the sensorium. When the word is applied to limbs or organs, we must refer to the spinal cord.

Many years ago, Professor Dieffenbach wrote a short work on stammering and stuttering, wherein he endeavoured to prove that the cause of this imperfection of utterance depended on a want of control over the muscles of the tongue. He argued that the muscles were too long for their office; and that it would benefit the patient to extirpate a part, particularly a portion of the linguales and long muscles of the tongue. He accordingly cut out a wedge-shaped slice from the middle of the tongue, and then sewed the edges of the wound together. But against this operation was justly urged the double objection—first, that it was based upon a wrong principle; and secondly, that it was both severe and dangerous. And, after the occurrence of one or two unfavourable cases, it gradually fell into disuse. But a partial improvement in the patients' utterance in some cases of stammering gained for him great temporary notoriety in the matter.

A stuttering person should be told to talk slowly, and to be circumspect in the choice of words, beginning to speak with one that comes to him easily. Many stutter only when called upon to pronounce particular letters, such as "l" or "r", etc. A little practice will enable them to avoid such words, and to substitute others. By such means, the evil may be greatly diminished, but not entirely removed. Some believe that they get on better by speaking both slowly and pedantically —often, I am sorry to say, deceiving themselves very much as to the amount of improvement. But I believe that we can give no better advice than that of teaching the patient first to utter some easy word or sound, and then to speak slowly and distinctly; also, when possible, to desist from speaking until the stuttering spasm has passed away. By the study of languages, a greater command of words will be obtained, and by this a corresponding advantage of selection in the means of expression will be gained.

CLINICAL MEMORANDA.

A CASE OF STRANGULATED FEMORAL HERNIA.

By Charles H. Ralfe, B.A.Cantab., M.R.C.S., etc., Doncaster.

The following record is interesting, from the masked nature of the case at its outset; and it illustrates well the necessity of making frequent examination of the groins and labia in all cases of vomiting with constipation; for, in this instance, *no hernial tumour* could be detected, although frequent examination was made, till thirty-six hours after vomiting had commenced.

Mrs. H., of Sprolborough, aged 73, a thin, spare woman, whom I had previously attended for cardiac disease, anasarca, and uterine tumour, sent for me on October 8th. She stated that, on the previous night, she had had a hard and difficult stool; and, since that time, "she had suffered much pain in her body, and had vomited some filthy black stuff." I at once suspected the nature of the case, and instituted a minute and careful examination of the labia and groins, but could detect no tumour whatever; neither was there any marked tenderness in those regions. As the evidence, so far, was only negative, I determined to wait, and prescribed a full dose of opium.

On my next visit, I found the symptoms more urgent, the vomiting more frequent and distressing; pulse 97. The groins were again examined; and I then found a tumour in the right groin, as large as a pigeon's egg. I at once requested the attendance of my friend Dr. Sykes, and my partner, Mr. Kiernan; and we determined, after giving the taxis a fair trial, to operate at once.

Making a limited longitudinal incision on the inner side of the tumour, and dissecting through the fasciæ till the sac was reached, then insinuating the nail of my forefinger under the edge of Gimbernat's ligament, I divided the stricture, and returned the bowel without opening the sac. The wound was then sponged out with a weak solution of carbolic acid, and the edges brought together with a single suture; and carbolic acid dressing was laid over.

Oct. 22nd. The patient has made an excellent and quick recovery, the wound healing rapidly. The bowels acted naturally three days after the operation. She sleeps well at night, has a good appetite, and is able to sit up a little every day.

ON ENUCLEATION OF THE EYE-BALL.

By R. H. McKEAND, Esq.,

Senior Surgeon to the Manchester Royal Eye Hospital.

To those members of our profession whose attention is more particularly directed to ophthalmic surgery, the question of enucleation of the eye-ball cannot fail to be a subject of much interest. In all cases requiring this operative proceeding there has been some violent injury, succeeded in general by total loss of vision in the eye, with a tendency to inflammation and structural disintegration in the other eye-ball. The principal difficulty lies in giving an opinion as to what period after the accident this operation should be performed. It is now well known that, after the eye has sustained such a formidable blow as to lead to its destruction, at some period afterwards, ranging from a few weeks to some months or even years, an inflammation of a highly irritative character is set up in the uninjured eye, which is commonly known by the term "sympathetic inflammation." This, in many cases, proceeds with the greatest rapidity, when once it has commenced, defying all palliative measures, and being arrested only by the complete removal of the cause of its excitement; viz., the lost eye.

It is desirable to suggest some systematic plan or rule to determine at what time medical treatment should cease, and when, anticipating the future trouble when the injured organ has to all appearance become quiescent, we should recommend operative interference. It must frequently have fallen to the lot of the ophthalmic surgeon to be consulted on this subject; and in my own experience I have found it a very difficult task to convince the patient of the necessity of resorting to this proceeding, particularly as the time when the sympathetic mischief may come on cannot be predicted, and the patient, living upon the hope that he may escape the calamity, delays as long as possible before he consents to the operation, frequently agreeing only when the very mischief it was wished to avoid has commenced, and, making its way with giant strides, leaves only the alternative of enucleation or total blindness. Cases are frequently presented to me when this secondary disintegration has already set in, and only by the above operation could it be stayed; and even then, too often, the delay has proved sufficient to establish considerable structural changes, and the sight has been permanently deranged.

I think it behoves us to point out to our patients that serious consequences must unavoidably ensue by waiting for such an event; that medical treatment can be of no avail; and that, unless complete enucleation be at once resorted to, irreparable mischief may occur.

An eye, slightly dimmed in its vision, recovers its integrity frequently enough after the operation of enucleation of its fellow; but, on the other hand, so difficult is it to say at what point the disease may stop when once begun, that in my opinion the most prudent course to adopt is to remove the eye-ball as soon after the accident as the health of the patient will allow.

Abscission of the eye-ball has by some surgeons been considered a sufficient check to the progress of sympathetic inflammation; and doubtless both patient and surgeon may be anxious to accept such a proceeding on account of the great advantage obtained in forming a bed for an artificial eye, which should possess as much mobility as possible. I have frequently, against my better judgment, been induced to make a trial of its efficiency, from the persuasion of the patient, when the necessary explanation previously to operation took place as to the different processes with their results; now, however, after many years' experience, I never consent to adopt any other measures than perfect enucleation in all cases of the kind.

I cannot recall one successful instance where abscission sufficed to preserve the other eye from danger; but the complete removal of the eye-ball has, in all, been necessary, with this result, that the delay has given to the eye what we wished to save an opportunity of a more extended period for derangement, which in many of my former cases has been serious. Iridectomy, as a palliative measure where the eye-ball has not lost its contents from the injury, has the same objections open to it as abscission; in a word, it is of no use. I now, therefore, whether perception of light remain or not, always propose the removal of the eye-ball.

A certain difference of opinion must necessarily exist amongst operators in cases where variety is possible; but on this subject I hope to be borne out, when I say that delays are dangerous, and to be supported when I express myself an advocate for the thorough uncompromising operation, and that at the earliest stage, erring then, if at all, on the safe side. If the operation be well performed, a large bed of muscles remains, which, after all, when an artificial eye is placed on it, has a certain amount of mobility; while the lid, drooping more over the eye than in cases of abscission, conceals any defect; so that, with the exception of appearing rather smaller than the real eye, there is nothing remarkable to strike the attention of a stranger.

In a future paper I propose to submit a number of collected cases which have occurred in my public and private practice, illustrating the foregoing remarks.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

MIDDLESEX HOSPITAL.

CYST OF THE UPPER JAW: WITH REMARKS.

(Under the care of Mr. HULKE.)

For the following report we are indebted to Mr. THOMAS FLOWER, House-Surgeon.

Cysts of the upper jaw frequently arise in connexion with the germs of the successional teeth, and many cases have been recorded where the crown of one of these teeth has been found in such a cyst. Usually, the bony wall is so thin that it yields under palpation, and the test of fluctuation is decisive of the cystic nature of the tumour; but this is not invariably the case, as thick-walled unyielding cysts have been mistaken for solid growths, the error only becoming apparent in the course of an operation planned for the removal of the maxilla. It is, therefore, prudent, and a precaution that should never be omitted, always, before beginning a more extensive operation for the extirpation of any tumour attached by a broad base to the body or alveolus of the jaw, to first puncture the tumour with a small trocar. In the following case, the summit of the tumour was so thin that fluctuation was very obvious. It was thought that the cyst might be dentigerous; but no tooth was found in it. A free opening was made by cutting away part of the bony shell. The cavity suppurated, and slowly lessened, closing entirely at the end of six months, without leaving any deformity.

A healthy young woman, aged 28, was admitted into Bird Ward on August 13th, 1866, with a globular swelling of the size of a billiard-ball distending the right cheek. It projected from the outer surface of the upper maxilla, reaching from the slightly expanded attached border of the alveolus upwards to the lower margin of the orbit and the malar root of the zygoma, and extending backwards to the maxillary tuberosity. The summit of the tumour fluctuated distinctly, and the base crackled and yielded slightly under pressure. The curve of the alveolus was not disturbed, and there was not any deformity of the hard palate. The right nostril was free. There were two stumps in the situation of the two premolars. The other successional teeth were all present. Yellow serum, loaded with cholesterine, flowed when the tumour was punctured with an exploring needle. A free opening was made by cutting away part of the outer wall of the cyst. The cavity had a smooth even surface, and projected into the antrum. About an ounce and a half of serum escaped from it, but no solid contents were found. A strip of lint was laid in it, to provoke suppuration, which was thoroughly established on the third day. After this, it was syringed at first with a solution of permanganate of potash, and afterwards of sulphate of zinc. At the end of the following February, it had completely healed, and still continues in the same satisfactory state.

WESTMINSTER HOSPITAL.

CALCULUS IN THE BLADDER: LITHOTOMY: RECOVERY.

(Under the care of Mr. FRANCIS MASON.)

A BOY, aged 4 years, was admitted into this hospital on March 31st, 1868. He had congenital phimosis, and had been a great sufferer from irritable bladder from birth. He had all the local symptoms of stone, combined with a very bad prolapsus ani. Mr. Mason split up the prepuce; and subsequently, on sounding him, a stone was readily detected. On Tuesday, April 7th, Mr. Mason performed the usual lateral operation of lithotomy under chloroform, and with the scoop removed a lithic acid calculus weighing seventy-five grains. The case progressed favourably. No urine came through the penis until the twelfth day after the operation, when a slight moisture only was observed at the meatus. On the fourteenth day, however, quite suddenly, all the urine passed by the natural passage, the wound having completely and permanently healed. The only drawback to his rapid convalescence was the presence on May 8th (a month after the operation) of an abscess in the right femoral region. Mr. Mason thought this was a coincidence, and that it was in no way connected with the operation. The patient left the hospital perfectly well on May 19th.

Mr. Mason took this opportunity of alluding to the great value of the scoop in certain cases of lithotomy. The forceps could, of course, not be altogether dispensed with; but they required to be skilfully and delicately handled, in order to avoid bruising the parts. In those cases in which the scoop could be used, he thought the operation was simplified, and was attended with less risk to the patient.

ST. PANCRAS INFIRMARY.

INTESTINAL OBSTRUCTION: SUDDEN DEATH.

(Reported by F. W. GIBSON, M.D., Resident Medical Officer.)

AMY P., admitted March 1st, 1868, stated that she had been suffering from severe pain in the bowels, constipation, and vomiting, during three days. She complained of pain, not of a severe character, in the lower part of the abdomen; there was tenderness in that situation, but no excessive distension of the bowels. Her countenance had rather an anxious expression; her pulse 80, full. A draught containing forty drops of tincture of opium was given, and hot fomentations applied to the abdomen. At 5 A.M. on March 2nd, I was called to see her, and on my arrival I found her dead. The nurse stated that she had been sick four or five times during the night; that a few minutes previously to my visit she had got out of bed to pass urine; and that she had fallen down on the floor, and died immediately.

Post mortem examination at 10 P.M. showed extensive peritonitis. A portion of the ileum near its lower end had slipped through a hole in the mesentery, and become strangulated.

REMARKS.—The chief points worthy of note in this case, are the absence of urgent symptoms at the time of the patient's admission, the suddenness of her death, probably from syncope, and the rarity of the accident by which that event was caused.

BRISTOL GENERAL HOSPITAL.

SUCCESSFUL OPERATION FOR CLEFT PALATE.

(Under the care of Mr. F. POOLE LANSDOWN).

SAMUEL F., a healthy lad, aged 19, was admitted under my care into the Hospital, on March 2nd, 1862, suffering from cleft palate. The fissure through the palate was complete, passing through the left nostril; it measured about three-quarters of an inch across at the centre of the palate, gradually narrowing to the alveolus in front, where the width corresponded to the absent lateral incisor tooth. The lip, which had been operated on during infancy, presented a very unsightly scar, and also a deep notch. The mucous membrane at the back of the pharynx was dry, and the trumpet-shaped extremities of the Eustachian tubes were exposed to view; during the act of swallowing the two halves of the velum were very nearly approximated, and the palate was well arched, so that all seemed favourable for a successful operation. I determined to commence with the anterior half. Accordingly, on the 17th of March, I carefully detached the whole of the muco-fibrous covering from the hard palate as far as the edge of the alveolus on each side, with the aid of Sir W. Fergusson's knives. The flaps thus formed fell into perfect contact. I applied silk sutures with a curved needle, without any difficulty. There was considerable hæmorrhage during the operation; wine was freely administered, and the patient bore it bravely. On the second day after, the flaps were so much inflamed that I removed the sutures, fearing that sloughing would ensue. The parts soon recovered, leaving the cleft in much the same state as when he came in. I sent him into the country to recruit his health, and he returned early in May of the same year. On the 7th of May, my patient having partaken of a hearty meal, I proceeded to operate on the soft palate after the manner described by Sir W. Fergusson. I found some difficulty in dividing the levatores palati from behind, in consequence of the point of the knife becoming entangled in the mucous membrane. I brought the pared edges into contact by means of six silver-wire sutures, with one of silk at the tip of the uvula; when all was fixed, he complained of dragging pains extending to both ears, and, the palate being very tense, I made an incision on each side through the tissues, close to the hamular process. This had the effect of setting the part at rest, and gave relief to the pain. He was allowed a good diet of milk and beef-tea; the sutures, which created no irritation, were removed on the fourteenth day, when the soft palate was found to be perfect. On the 20th of June, I took him in hand again. The muco-fibrous membrane having been detached from the hard palate, as before, the flaps fell into perfect contact, and this time I kept them in place with silver wire sutures. The entire gap was now closed; he was put on the same diet as before; the sutures were removed at the end of a fortnight, when the greater part of the cleft was closed, one small sinus remaining open just in the centre; this, however, closed in a few days after applying nitrate of silver. There now remained a very slight chink in front, which, however, was closed by the foundation of an artificial tooth placed in the gap left by the absence of the left lateral incisor. It remained to remodel his lip, to make the cure complete. My patient was now laid by with an attack of acute rheumatism, which prevented my doing this until the 28th of August, when, the patient being under the influence of chloroform, I cut out the old cicatrix, making the incisions so curved that, when the lip was adjusted, there was a fair sized papilla in the centre of the free margin. At the end of a week the lip was healed, and his appearance was thereby vastly improved; his speech—which previously to the operation was quite unintelligible—was very much more distinct.

REMARKS.—I am induced to report this case, because I have not met with any recorded instance so complete as this one, the cleft being perfectly closed from the incisive foramen to the tip of the uvula. I attributed the failure of the first attempt to the irritation caused by the silk sutures. This was afterwards obviated by the use of silver wire. I have frequently seen my patient since the operation; and his articulation is now comparatively distinct.

DUBLIN HOSPITAL REPORTS.

ADELAIDE HOSPITAL.

POPLITEAL ANEURISM CURED BY PRESSURE.

(Under the care of DR. JOHN K. BARTON, F.R.C.S.Ireland.)

JOHN P., 30 years of age, a coach-painter, was admitted on the 18th of April, 1868, with a painful swelling in the left popliteal space, which, upon examination, proved to be an aneurism. The tumour was of the size of a small orange, with distinct distensile pulsation and *bruit;* the leg was swollen, and the seat of a numb, painful sensation. The patient gave the following history. For six months he had been walking through England seeking work; sometimes he walked twenty miles, or more, in the day. He often felt pain in the left leg, particularly when tired; but did not perceive any swelling until February 11th, just two months before his admission, when a small tumour in the left ham attracted his attention. He went into hospital in Liverpool; but, as soon as he felt rested and better of his pain, he left, without anything having been done for the tumour. The pain and general swelling of the limb had much increased within the week before his admission. The pulse was 118, full; tongue white; bowels confined; appetite *nil.*

After rest in bed for a day or two, during which the bowels were opened, and sleep obtained by opiates, treatment by pressure was commenced. On April 20th, a truss-clamp was placed upon the limb, the pad of which compressed the artery in Scarpa's triangle. The pulsation in the aneurism was completely controlled by this; but the pressure caused severe pain, so that, in a quarter of an hour, the pad had to be shifted lower down on the artery; the skin, where the pressure was being made, was kept bathed with whiskey; and the pad was shifted every hour or half hour to a fresh spot; the artery being controlled by the fingers of the assistant while the instrument was being moved. At 12.45 A.M., the clamp having been on continuously for twelve hours, the patient declared he could bear it no more, and begged to be allowed to sleep. Accordingly, the instrument was removed, and an opiate given.

Upon the following day (April 21), the tumour did not seem changed in any respect by the treatment. A further and more continuous trial was determined upon. The dresser who had charge of the case (Mr. Samuel Knaggs), assisted by other students, agreed to stay all night with the patient; as not only had the pad of the clamp to be very frequently moved, but the movements of the patient often caused the artery to escape from the pressure, and so constant watching was necessary. By means of digital pressure being carefully used while the instrument was shifted, the pressure was kept up without the slightest intermission until the next day (April 22nd); when, upon examination, the aneurism felt firmer, and the pulsation feebler. Carte's instrument was then put on as well as the clamp, so that the pad of one might be tightened when the other was loosened. Ice was also applied to the tumour.

The pressure was thus constantly kept up until next day (April 23rd); when a further solidification of the tumour was perceptible. Sometimes the patient complained of very little pain from the pressure; but again, without any apparent change, he said it was unbearable. The clamp was always preferred by the patient to the pressure of the Carte's instrument.

Pressure was kept up without intermission until one o'clock upon the morning of the 25th; when it had been on altogether eighty-seven hours and a half. The tumour presented at this time an indistinct distant pulsation; the articular arteries could be distinctly felt much enlarged. Pressure was now kept up during the day only from seven o'clock A.M. to eleven P.M. for several following days; the patient himself assisting in keeping it up, saying he felt relief of pain when the artery was compressed; and, as he had learned how to command the vessel at the pubes himself, the clamp was readily shifted when required.

This went on until May 2nd, being the fourteenth day of the treatment, when the patient complained of agonising pain down the leg, and a distressing numbness. Upon examination, the tumour was found densely hard, and without a trace of pulsation. The whole limb was hot and swollen; pulse 106. All pressure was now removed, the limb enveloped in a flannel roller, and an opiate and diaphoretic administered. The swelling of the limb gradually subsided; the tumour in the popliteal space remaining very firm.

In about ten days, the patient was up on crutches, and was sent out to the Convalescent Home at Stillorgan, where he remained some weeks, complaining much of the numbness of his leg, which prevented him from being able to use it. When last seen, his general health was excellent; his left leg felt still numb, and he could not use it with much confidence; but there was no pain upon walking. The popliteal space was half filled with an undefined solid tumour.

In this case, pressure was kept up, without any but momentary cessation, for seventy-five hours and a half, and altogether for a hundred and seventy-nine hours, or seven days eleven hours. The result justified this perseverance.

SIR PATRICK DUN'S HOSPITAL.

ENDO-PERICARDITIS: ADHERENT PERICARDIUM: MITRAL REGURGITATION, WITH HYPERTROPHY.

(Under the care of Dr. MOORE.)

Reported by Mr. HURFORD.

CASE I.—Edward B., aged 17, a bugler in the militia, had a severe attack of rheumatism in February last, which affected all his joints *seriatim.* Some time afterwards, he became dropsical, and was admitted into Sir Patrick Dun's Hospital, under the care of Dr. Law. Abscess formed in the pudendum and inside and below both knees; which gave vent to a copious discharge, *pari passu* with which the anasarca disappeared, and the patient was greatly relieved. On October 20th, Dr. Bennett was kind enough to ask Dr. Moore to see this patient, who looked pale and spanæmic; his pulse was 102; his temperature at 9 A.M. was 100° Fahr. The pulsation of the heart was very visible, and the apex-beat was twisted forwards and upwards. On placing the hand over the præcordial region, palpitation could be felt, of an undulating character, and accompanied with a "thrill", best marked over the apex. Percussion gave an increased area of dulness; and the stethoscope revealed a loud systolic murmur, heard most distinctly towards the apex of the heart. A murmur could also be heard at the inferior angle of the left scapula. The urine was normal as regards its reaction and specific gravity, and contained no albumen.

On October 26th, the patient complained very much of dyspnœa, loss of appetite, cough, and pain in the mid-sternal region. His pulse had risen to 116, his temperatare to 101°; and he looked hectic.

On November 3rd, there was well-marked dulness on percussion over the base of the right side, with an absence of vocal vibration. Pulse 116; respiration 48. He died on the 5th.

The *post mortem* examination showed this case to be one of adherent pericardium, with cardiac hypertrophy. The two pericardial surfaces were so agglutinated together about the base of the heart and the origin of the great vessels, that it was well-nigh impossible to separate them. There was great hypertrophy of both the right and left ventricles, and the right and left auricles; their respective cavities were dilated, and their lining membranes opaque, and in some places of a fawn colour. The mitral orifice was dilated so as to admit of three fingers easily; there was no deposit on its valves. The aortic orifice was rather contracted, and on one valve a small deposition could be seen. Both pleural cavities contained fluid; and the base of the right pleura gave evidence of recent pleuritis. The other viscera presented nothing abnormal.

Dr. Moore remarked that endo-pericarditis was well exemplified in this case. The signs of adherent pericardium were well marked; viz., undulating heart's action, increased dulness over the base of the heart, and twisting forwards and upwards of the apex. In addition, a systolic thrill could be felt most distinctly over the apex and left nipple; and a loud systolic murmur was audible, most intense over the same region; it could also be heard at the inferior angle of the left scapula. The thrill was synchronous with the ventricular systole, and varied in intensity as the patient was excited or the contrary.

As regards the treatment of the above and such kindred cases of cardiac disease, Dr. Moore remarked that the relief of the secondary complications, when present, such as pneumonia, pleurisy, hepatic and renal congestion, with ascites or general dropsy, demanded our prompt attention. In this case, nature may be said to have come to our relief by establishing abscesses in different regions, by which means the dropsy, to a great extent, was removed. For the removal of hepatic and renal congestion, he generally advocated the exhibition of aperients and diuretics in combination—viz., a mercurial with squill or digitalis; and, to relieve the pulmonary engorgement, dry-cupping or the application of blisters. By these measures, coupled with the avoidance of mental excitement, you will often be able to restore cases apparently moribund, although such treatment will not materially affect the source of the disease. In the above case, as the *vis* of our patient did not admit of active derivatives of any kind, we exhibited more stimulating diuretics, at iodide of potassium in combination with bark, and decoction of scoparium with spirits of juniper. He had wine, beef-tea, and a liberal regimen; and, when signs of pleuritis evinced themselves, he was blistered over the affected region.

REVIEWS AND NOTICES.

A Practical Treatise on Bright's Diseases of the Kidneys. By J. Grainger Stewart, M.D., F.R.S.E., Pathologist and Extra-Physician to the Royal Infirmary, Edinburgh. Pp. 188. A. and C. Black. Edinburgh: 1868.

Dr. Grainger Stewart is well known as an able and experienced pathologist, who has devoted particular attention to the anatomy and clinical history of diseases of the kidneys. To him we are mainly indebted for what we know of the distinguishing characters of the urine secreted by the amyloid or waxy kidney. The present treatise is a clear, concise, and demonstrative exposition of his views, which ought to be perused and carefully studied by every practitioner of medicine.

Dr. Stewart adopts Professor Virchow's classification of the diseases ordinarily included under the designation "Bright's Disease," according to which there are three distinct affections, viz:—1. Parenchymatous nephritis, commencing in the tubules; 2, waxy or amyloid degeneration, commencing in the vessels; and 3, cirrhosis, or the contracting kidney, commencing in the interstitial tissue. The tendency of the first two forms is to cause enlargement of the kidneys, although, if the patient live long enough, this is followed by a subsequent stage of contraction; the peculiarity of the cirrhotic kidney is that it contracts from the first.

The inflammatory form of Bright's disease is shewn to pass through three stages, viz.: *a*, that of inflammation; *b*, that of fatty transformation; and *c*, that of atrophy. The morbid anatomy and symptoms of each of these stages are carefully described, while the causes and complications of this form of kidney-disease are each discussed in a separate chapter, and various explanations are given of the way in which dropsy and blood-poisoning are brought about. Under the head of treatment the author strongly advocates diuretics, in preference to diaphoretics and purgatives, for getting rid of the dropsy. Such a practice would no doubt be reprobated by many London physicians; but Dr. Grainger Stewart remarks (and from numerous observations we are satisfied that he is correct), that the theoretical objections to the use of diuretics have been abundantly disproved by experience. The danger to life results from the occlusion of the uriniferous tubules, and obviously the clearing out of these tubules must be desirable. The diuretics which are entitled to the first place are those long ago recommended by Drs. Bright and Christison, and more recently by Dr. W. T. Gairdner, in his Clinical Lectures, viz., the bitartrate or acetate of potash with digitalis. The inhalation of oil of juniper Dr. Stewart has also found very useful. For uræmic symptoms, cupping over the kidneys and active purgation are recommended, and the administration of chloroform in cases of a more convulsive type.

The morbid anatomy and clinical characters of the waxy or amyloid kidney are also described under three different stages of the malady, viz., *a*, that of degeneration of the vessels; *b*, secondary changes in the tubes; and *c*, atrophy. The distinguishing characters of the urine in this form of disease are its great quantity and the large amount of albumen contained in it. In a separate chapter, at the end of the work, Dr. Stewart discusses the nature of the so called amyloid deposit. He considers it to be a degeneration of tissue rather than an exudation from the blood; and, although he admits that it is an albuminous material deficient in alkali, he adduces statistics which, in his opinion, summarily dispose of Dr. Dickinson's view that it necessarily depends upon suppuration.

The cirrhotic or contracting form of kidney-disease—the gouty kidney of Todd—according to Dr. Stewart, consists essentially of an hypertrophy of the connective tissue of the organ, and a consequent atrophy of all the other structures. Its clinical characters, morbid anatomy, complications, causes, and treatment are well, though concisely, described.

The author then goes on to show that much of the confusion which exists in the minds of medical men respecting Bright's disease is from neglect to recognise the possibility of two forms of disease coexisting. Cases are adduced illustrating a combination of the waxy and inflammatory, and of the cirrhotic and inflammatory, forms of disease.

In supplementary chapters at the end of the volume, Dr. Stewart describes:—

1. A Simple Fatty Degeneration of the Kidney, occurring independently of nephritis, in connection with exhausting diseases or senile marasmus, or from excess of fatty food. It is met with in conjunction with fatty degeneration of other organs and tissues, and, like the analogous condition long ago shown by Mr. Simon to be present in the kidneys of domestic cats, is unattended by albuminuria or by any symptom of Bright's disease.

2. Acute Atrophy of the Kidney. This is a condition closely resembling the acute atrophy of the liver, with which, in fact, it often coexists. Dr. Stewart's observations seem to show that the renal atrophy is not a sequel of the hepatic lesion, and that it may precede the latter or even exist independently. He comes to the conclusion that both acute atrophy of the liver and of the kidneys are merely local manifestations of the existence of a blood-poison—a view which, we observe, is also advocated by Dr. Murchison in his Lectures on Diseases of the Liver, which we had recently occasion to notice.

3. Lastly, there is a chapter on the Nature of the Waxy or Amyloid Degeneration, to which we have already referred.

The value of the volume is greatly enhanced by records of numerous cases, and by seven beautifully executed plates, illustrative of the morbid anatomy and renal casts found in the urine of the several diseases described. Altogether, the work is one of the most important contributions to medical science that has lately issued from the Edinburgh School of Medicine.

Injuries and Diseases of the Jaws. The Jacksonian Prize Essay of the Royal College of Surgeons of England, 1867. By Christopher Heath, F.R.C.S., Assistant-Surgeon to University College Hospital, and Teacher of Operative Surgery in University College. London: Churchill. 1868.

Mr. Heath presents us here with a very complete digest of existing information on diseases of the jaws, and adds much to our knowledge. He has collected and arranged with much skill the numerous examples of these affections hitherto scattered through a multitude of English and foreign journals and treatises. The descriptions are very fully illustrated by drawings, and the opinions of other surgeons criticised with great judgment. This work brings into English literature the researches of O. Weber, Giraldès, Verneuil, and others on the continent, whose labours in this department of surgery are not generally known to English surgeons. Several of the most interesting cases are contributed by the author himself, and we congratulate him on the clearness and precision with which the important points are narrated.

The book is divided into twenty-eight chapters, each devoted to a special affection. The account of the cysts and tumours connected with the teeth is particularly good, but there is little to be desired in any of them. It is invidious to criticise, when all is so well considered; but one of the opinions which Mr. Heath expresses will not at once be generally accepted. He attributes most fibrous tumours of the jaw to the continued irritation of carious teeth. In the present state of our knowledge concerning the origin of tumours, this suggestion will excite some discussion. For ourselves, believing that local accidental causes have much to do with the origin of all tumours, this explanation appears natural and probable.

Another very instructive chapter is that on Necrosis and the Formation of New Bone in the Lower Jaw; and, though not leaving this interesting question completely solved, it is fully up to the present state of knowledge on the repair of bones.

No surgeon should be without this treatise. The concise descriptions and excellent arrangement render the monograph a valuable book of reference, and will greatly aid the practical surgeon in all cases of difficulty. We congratulate Mr. Heath on the production of a work which will increase his reputation in so permanent and satisfactory a manner.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 12TH, 1868.

THE DISTRESS AT THE EAST END OF LONDON.

The approach of winter has found the poor of the East-end of London even more destitute than last year, and suffering from sickness and want to an extent which only actual inspection, such as only the medical officer makes, can fully ascertain and describe. In the interests of humanity, and in order clearly to ascertain what medical skill and charity are doing in this emergency, we personally fulfilled the painful duty of visitation.

The district we especially visited was Ratcliffe Cross and its neighbourhood, a densely populated part of the East-end, surrounding Stepney Station. It was in Narrow Street in this locality that the last cholera epidemic first appeared, and swept away so many victims. The inhabitants are chiefly, although not entirely, dock- or road-labourers; as a class, they are grossly ignorant; most of them totally uneducated. One boy, 10 years old, who had been at school for some months, was unable to inform us where London or England were; he had never heard of either. One poor woman, when asked if her husband, who was ill, had a vote for Parliament, after considerable hesitation, said, "I knows as how it couldn't be that, sir, cause it came on quite gradual." Such artisans as these are seem to be of a greatly inferior class to those met with in the West-end of London; and now that they have sold their tools, they depend upon earning what little they can by odd jobs of any sort.

The houses are very poor and small, especially those confined in narrow alleys so frequent in the neighbourhood; although very dirty, they present, generally, a fair contrast even in this respect to the inmates. Each contains several families, averaging about five to each room. Furniture is either entirely absent, or nearly so. A bed—in one house we found two beds—mattress, rug, or sheet, a table, chair, a few articles of crockery, and, if a Roman Catholic family, almost invariably a picture of the Virgin, is, in many rooms, a very full inventory. Here and there are to be found rooms comfortable and well furnished, but these are certainly the exception.

In one room, we found a man, with three children, starving. The mother and wife lay dead on a straw mattress—the only article of furniture, indeed, in the room. The husband, a shoemaker by trade, and able, when at work, to earn a pound a week, has been "quite slack" for some time; and, receiving no parish relief, is in a hopeless condition, unless he enters the workhouse.—In another room, we found a woman with three children. Her husband had gone to the United States to seek work; and left her in the meantime to gain what subsistence she could, until he sent her relief. The apartment contained a straw mattress, a chest, a few cups and saucers, and a basin. The room was wretchedly comfortless, but scrupulously clean. Her eldest child had lately died of scarlatina. The poor mother had, however, no money to pay the expenses of burial; and, as she said her husband would never forgive her if she allowed the child to be buried by the parish, she became frantic. Thanks, however, to a charitable friend who happened to hear of her grief, the required amount was forthcoming, and the poor woman's honest pride satisfied. This woman, subsequent to the gift of money, received from a relation the requisite sum for her child's burial; but, strange as it may seem, she had the honesty to return—starving as she was—the guinea first given her.—Another poor sufferer, of good character, dying of consumption, lay helpless and bedless, in a garret, covered with a few filthy rags. She had been discovered insensible from literal starvation by a fellow lodger. She was sent specially in a cab to the Victoria Park Hospital, but was not admitted. A poor woman had just been attended in labour. There were only a few potatoes in the house, she had not a farthing in her possession, and her husband was out of work. The relieving-officer was written to for assistance by Mr. Heckford; but he refused to recognise such recommendation. She was supplied by Mrs. Heckford with a few necessaries. Her husband immediately afterwards obtained work sufficient to render further assistance for the time unnecessary.—In a room of one house were a husband, wife, and three children, sleeping on a torn straw mattress. There was no furniture, except the framework of a chair, improvised into a seat by a piece of rope crossed. The husband was, and had been for some time, out of work, and received no parish relief.—In another room, were a father, mother, and eight children, all subsisting on 7s. 6d. a week.

These are but a few glimpses of what is taking place, more or less, among sixty thousand families in the East-end, and is certain, in a large measure at least, to continue throughout the winter. The population must have received, and must continue to receive, great bodily, not to speak of moral injury, from this state of things, which will leave its mark for some time to come. A very large number have sold their furniture, which they had to fall back upon last winter, and now they are literally starving. They are willing to labour if work is provided for them; but they cannot obtain it. In many families, when the father cannot get a job, the mother is the support of the family, going out charing, making pea-jackets for tenpence each, or earning one and sixpence a day at the lead-mills; but this last usually cannot be continued more than a fortnight or three weeks, as symptoms of lead-poisoning have by that time appeared. So great is the dread of these mills that they will only work there to save themselves from what some of them consider worse than a crime, entering the workhouse.

Whether the State, under these circumstances, will interfere, and afford employment, we know not; but, if left to sectarian charity, relief committees such as we had last year, or the tender mercies of the relieving officer, the distress in the East of London will remain a scandal and shame to the nation.

There is one aspect of the case, however, which more immediately concerns us—that of medical relief. In this vast district, with a million or more of inhabitants, the means for in-patient sick relief are remarkably limited. The workhouse infirmaries are full. Moreover, a considerable number of those suffering from acute disease refuse to apply for admission into them until forced by starvation. The London Hospital has hitherto chiefly afforded relief to this part of the metropolis. It has 500 beds, only 150 of which are medical. The Metropolitan Free Hospital has also a few beds, about twenty-seven; the Poplar Hospital, thirty; and the East London Children's Hospital, thirty-seven. These are quite inadequate at all times; but, admitting that these hospitals are sufficient in time of plenty, there are now, to our own knowledge, vast numbers labouring under serious diseases, *plus* starvation, and lying at home totally uncared for. A scheme of general relief, which has been talked of, must also include systematic medical relief, else it will not attain its object. As there is little chance, however, of a general scheme of any sort this winter—indeed, it could not be got into working order—it is our duty to point out the insufficiency of the existing state of medical relief, and bring the matter as prominently as we can before the notice of the public. Are the hospitals in the East End, with their five hundred and sixty beds, to be the only means at the disposal of the poor of the district during the winter? Surely not. Why should not a few houses, transformed for the winter into temporary district hospitals, be obtained, where the deserving sick could be properly fed and tended?

We are certain that the hospitals and the dispensaries of the East End could not do better than expend part of their income in this way. The public, we are sure, would willingly assist them. House-to-house visitation could be made, and proper cases only admitted. That a system such as this can be carried out with excellent results, we maintain. As an example of the sort, a splendid piece of philanthropy exists in full vigour at this moment in the metropolis. We refer to the East London Hospital for Children and Dispensary for Women. This admirable charity was founded in January of the present year, by Mr. and Mrs. Heckford, who purchased the freehold of two houses in a healthy but wretched part of Ratcliffe Cross near Stepney Station, paid all preliminary expenses, and determined to support ten beds themselves, as an experiment. Not only this, but they resolved to reside in and superintend the working of the hospital themselves. The result has far exceeded their expectations. It was immediately found that, to overtake anything like the proper treatment of the sick that flocked to them from a neighbourhood containing two hundred and fifty thousand children alone, the hospital must be very greatly enlarged. The committee appealed for funds; and, by the benevolence of a few, they are now enabled to open nearly forty beds—a step we can personally testify to be of vital importance to the neighbourhood. Not only are patients attended to at the hospital, but, when necessary, visited at their homes. Many instances of fearful poverty and disease are thus discovered and relieved. Much more we could say of the varied good this charity is doing, but we forbear. We can, at least, fearlessly say that there are no more satisfactory means at this moment of affording relief to the sufferers in the metropolis, than by imitating the noble example of the East of London Hospital for Children.

ALLEGED HOMŒOPATHY IN ABERDEEN.

Considerable excitement has been caused in Aberdeen, and throughout the North of Scotland, by the proceedings consequent upon certain publications of Dr. Archibald Reith, one of the Physicians of the Aberdeen Infirmary, and by his alleged introduction of homœopathic principles of treatment and infinitesimal medication into the hospital. The persons most concerned have been heard in our columns. The papers in which Dr. Reith's experimental researches, and the results which he deduces from them, are set forth, appeared in the *Edinburgh Medical Journal*, of February, April, and September, in the present year. We shall allow Dr. Reith to state what the essential parts of his opinions are in his own words. He says:

"The views propounded are shortly these: 1. That, in a certain proportion of cases—namely, those diseases which are attended by dilatation of blood-vessels (exhausted sympathetic)—medicines are to be selected for the cure, which, in their ordinary manifestation on the healthy body, cause symptoms analogous to the disease. 2. The dose, in such cases, to be less than will aggravate the symptoms; producing contraction of blood-vessels, *and no more;* the actual dose depending on the nature of the cases, and to be determined by experience. The only difference between Trousseau's substitution theory and mine is simply this, that, while Trousseau gives doses so large as to produce aggravation of symptoms in the first instance, I give the medicines in doses less than will produce such aggravation, but still capable of producing appreciable effects in cases to which they are suitable. Now, what is so heretical in all this as to call for my expulsion from the profession?"

We shall not stop here to inquire what may be the value of such results, or how far Dr. Reith is justified in attaching so much importance to the excitation or depression of the vaso-motor system. Our physiology is yet too imperfectly informed on this subject to give much dogmatic value to such therapeutic conclusions. But to Dr. Reith's vindication in our columns, Drs. Smith and Harvey pertinently reply that Dr. Reith attaches a singular meaning to "appreciable doses." Being temporarily asked to take charge of Dr. Reith's patients, they say they could not but see what treatment the patients were under; and they found that, while some were getting quarter-drop doses of the tincture of nux vomica and of the liquor arsenicalis (*B.P.*), others were getting the sixth trituration of sulphur, and drop-doses of the first decimal dilution of baptisia tinctoria. They also found that Dr. Reith had ordered into the Infirmary laboratory various homœopathic preparations, consisting of "mother tinctures", decimal dilutions and No. 6 dilutions, one drop of which is equivalent to one-billionth part of a grain of the original substance. They add that Dr. Reith, since the publication of the *Edinburgh Medical Journal* papers, has declared "his homœopathy and Hahnemann's to be identical". Dr. Reith now writes to us to say, that "he used these dilutions in one or two cases of obstinate constipation, which had resisted other means of treatment, not because he believed in them, but to test the truth of the allegations made by homœopaths, that such preparations have the power of removing the tendency in question." He adds that they proved utterly useless. He says that he should have given this explanation earlier, but for the want of confidence which his colleagues showed in not conferring with him before they called upon the Managers to expel him. In all this, we think Dr. Reith has acted very indiscreetly at least, and with some want of candour. His colleagues wrote to remonstrate with him on introducing homœopathic medicines and practice into the Infirmary; and he replied by bravado and an attack upon rational medicine and upon modern therapeutics. In all his pamphlets, we find no reference to this utter failure of his homœopathic and infinitesimal medication which he now confesses; and we think it is equally to be regretted that he should have introduced into a public institution a medication so pretentious, so irrational, and so deceptive; and that he should have waited until pressure so strong was put upon him to announce its failure. In our opinion, it only remains for Dr. Reith now to make the *amende honorable*, by publicly acknowledging, before the lay governors, the proved inutility of his homœopathic introductions; and to undertake to conduct his therapeutic essays in the future in such a manner as shall lend no sanction to a system which is one of ill concealed fraud and deception. Let us have no more coquetting with decimal solutions and mother tinctures; and no more countenance of the professors of that system.

Mr. E. Maundrell, who commenced his duties as Resident Surgeon at the New Bridge Street Workhouse, Manchester, on the 16th ult., was taken ill with typhus fever on the 23rd, and died on the 3rd inst.

THE MAURITIUS EPIDEMIC.

Advices, dated November 18th, state that fever continues in the island, but the mortality is not above the ordinary average.

MR. F. C. SKEY, C.B.

Mr. Skey has been gazetted C.B.—we presume, in recognition of his public services as Chairman of the Committee out of whose labours sped the Contagious Diseases Act.

EDUCATION OF STUDENTS.

The Branch Council for England of the General Medical Council have just had under consideration the resolution of the Medical Council of July 4th, 1868, to which we recently referred, in anticipation of their meeting; and they have resolved to inform the Council that, in their opinion, it would not conduce, in England, to a more efficient and satisfactory system of conducting the examination of students in preliminary education, if a Board were appointed by the General Medical Council, or by this Branch Council, to arrange and conduct, under their supervision, these examinations. On the question of making Logic a compulsory subject, they have also resolved that, while recognising the advantage of instruction in Logic as part of the education of a medical man, they do not recommend the introduction of Logic as a necessary subject of the preliminary examination of the medical student.

NAVAL MEDICAL PROMOTIONS.

On resigning office, the Lords of the Admiralty have promoted Dr. Salmon, of Woolwich Hospital, to the rank of Inspector-General. This officer having been above thirty-five years in the Royal Navy, and thirteen years and a half a Deputy Inspector-General, it may be said that his elevated rank has been long deferred, especially when the junior Inspector-General of the army was but nine years a Deputy. We cannot congratulate the Naval Medical Service on its rapidity of promotion. It is said that, in consequence of this change, Dr. H. J. Domville, C.B., will be removed to Woolwich; that Dr. Robert Bernard, late of Hong Kong, will go to Plymouth Naval Hospital; and that Dr. Robert Pottinger, Medical Storekeeper at Plymouth Hospital, will probably be promoted to the rank of Deputy Inspector-General, and sent to Hong Kong. It is said that there is a large deficit in the usual number of annual promotions among the naval assistant-surgeons, and there is some anxiety to know whether the Board will promote a batch before leaving office.

A PRESENT FOR REGISTERED PRACTITIONERS.

We may remind our readers that, on the 30th of June last, the General Medical Council passed a resolution that, in future, every person whose name shall be entered for the first time in the *Medical Register*, shall be entitled to receive, on application, a copy of the published *Register* for the year in which his name has been entered; and we may inform them that the necessary directions have been given, and that, in future, every such person will receive his copy on application at the office of the respective Registrars for England, Scotland, and Ireland.

ORGANIC SYNTHESIS.

From Germany, we have chemical news of very great interest. Liebig's *Annalen*, the last new number of which has just arrived in London, announces the fact that Linnemann has effected the direct transformation of the acids of the fatty series into corresponding alcohols (acetic acid, for instance, into common alcohol). It was accomplished by acting on the anhydrous acid with sodium-amalgam. This important discovery supplies the missing link required to pass step by step up the ladder, from the simplest alcohol (wood spirit) up to the highest, wax-alcohol.

THE ADMIRALTY AND THE DREADNOUGHT.

The Seamen's Hospital Society have, we understand, taken counsel of their second mind, and have recently applied formally to the Admiralty for permission to occupy that quarter of the Greenwich Hospital which the Government offered them in 1866, but which they then declined on the score of the expense which would be involved in fitting it up (£27,000), and its sanitary and architectural unfitness for their purpose. Considerable pressure has been brought to bear upon the late Government; and the question has been more than once before the Board. The most serious difficulty in entertaining the proposition is that, since the rejection of the Government offer by the *Dreadnought* authorities, a Government Committee has sat, under the presidency of Mr. Ducane, M.P., and has recommended changes in the admission of patients from the Royal Navy, which have tended to occupy the building with service invalids.

THE LICENCE OF THE GLASGOW FACULTY AND THE CLUB QUESTION.

It appears that three of the "new men" who have been introduced into the Staffordshire district by those who are resisting the claim of the sick-club medical officers to a higher rate of remuneration, are gentlemen possessing the single qualification of the Faculty of Physicians and Surgeons of Glasgow. We find, in the *West Bromwich and Wednesbury Observer* of December 5th, an account of a case in which the claim of one gentleman to recover for medical attendance is disputed, on the ground that his diploma is registered only as a surgical diploma. We believe this to be a valid plea. The judge has reserved the point in law for the production of an authenticated copy of the charter.

DR. STIRLING, R.N., AND THE COMMODORE AT THE CAPE.

The "rough old Commodore" at the Cape, who made himself conspicuous by a stretch of authority in dismissing Dr. Stirling from the charge of the Naval Hospital, seems to have a taste for a sort of notoriety that will not, we think, increase the respect in which commanding officers ought to be held for the credit and good of the services. He has now tried the Paymaster of his own ship on charges "of conduct unbecoming an officer in rendering false cash accounts." The court, composed of combatant officers convened by the Commodore, acquitted the prisoner most honourably, and returned him his sword. As this officer has thus given further public proof of a lamentable want of judgment in dealing with others, we trust that there will be made forthwith to Dr. Stirling a full compensation, *by promotion*, for the grievous wrong to which he has been subjected by the arbitrary will of the Commodore, as professional indignation will not be otherwise allayed.

RADCLIFFE INFIRMARY, OXFORD.

It has been finally determined not to diminish the number of beds, as proposed; but additional contributions will thus be needed for the current year, the institution being already in debt. Mr. Gathorne Hardy and Mr. Mowbray, the newly elected members for the University, have subscribed £52 : 10 : 0 each, and Earl Bathurst £20, for this purpose.

WEST MIDDLESEX CORONERSHIP.

This case of the late election for Coroner in the Western Division of Middlesex, in which Dr. Hardwicke and Dr. Diplock were candidates, came again before the Court of Queen's Bench last week. A rule absolute had been granted in the nature of *quo warranto*, calling upon Dr. Diplock to shew cause by what authority he exercised the office. Dr. Diplock pleaded in the form of demurrer, that he was duly qualified and elected by the Sheriff. The prosecution alleged that Dr. Diplock was not duly elected by the majority of valid votes. On the 16th, a rule *nisi* was obtained to shew cause why a demurrer should not be set aside on the ground that the Crown had no prerogative to reply to issues on an information in the nature of a *quo warranto*. The rule was argued on the 25th ult., by Mr. D. D. Keane, Q.C., and Mr. Day for the prosecution, and by Mr. Gray, Q.C., for Dr. Diplock, when, after hearing the argument of counsel, the Court unanimously gave judgment for the prosecution and against Dr. Diplock, and condemned the latter with costs. The case now remains for argument next term.

THE MEDICAL REGISTER.

Some inconvenience having been experienced at the tardiness of the publication of the *Medical Register* in each year, of which the official importance is considerable, it has been resolved that, in order to facilitate its early publication, that of the medical students be deferred till after its appearance. Is not the printing and publication of the *Students' Register* a waste of money? What purpose does it serve?

INDIAN MEDICAL NEWS.

Letters from Bengal announce that the successful applicants for the annuities for 1868, granted from the Bengal Medical Retiring Fund, are Drs. Green, Dunbar, Guise, and D. Macrae, of the Effective List; and Drs. Oakley, Hubbard, and Littler, of the Retired List.—The Government of Bengal has directed statistics to be collected of births, marriages, and deaths, on a plan suggested by the Rev. F. Schurr.

THERAPEUTIC VALUE OF OLIVE-OIL.

At the last meeting of the Harveian Society Dr. Ramskill read a paper on the Therapeutic Value of Olive-oil. The paper consisted of a history of two cases of gout, which he considered types of the kind of disease, and especially as to the stage of it in which the internal administration of olive-oil was most useful. The first type was represented by a patient affected with comparatively acute attacks, reappearing with very short intervals, and making little or no way towards convalescence. Bark, quinine, iron, had frequently failed to prevent a reappearance of the disease. Cod-liver oil was rarely borne at all. In such cases, olive-oil, given when the patient lapsed in the interval, had answered all the requirements of the case in Dr. Ramskill's hands. Nutrition began to improve, and no more relapses occurred. The second case was a type, also, of a class of cases, where, all acute symptoms having long subsided, vague and uneasy pain remained in all the joints—associated only with stiffness or difficulty and pain on movement. The general health meanwhile slowly deteriorated, with much general wasting; and no impression could be made on the system by the usual tonics. Here the use of olive-oil was more quickly beneficial; but it often seemed to act as a hæmatogen. In true rheumatoid arthritis, the use of the oil was perhaps more beneficial than most ordinary remedies; but Dr. Ramskill could make no assertion as to the favourable action of any single remedy on this disease. The dose of olive-oil should not exceed a teaspoonful at the commencement; it should be gradually increased, until a laxative effect announced the attainment of such a dose as exceeded the absorbent power of the stomach and intestines. Any vehicle containing a few drops of sulphuric ether would then help to assimilate the oil, and prevent diarrhœa. It was important to obtain perfectly fresh and new oil, to ensure absence of rancidity, and consequent eructations and disorder of the stomach. Dr. Ramskill considered the remedy as a combination of food and physic; but still one unattainable by ordinary food and medicine. It was important to begin its administration when the patient was free from acute attacks or, at least, from fever. The passage of pale urine, or of greenish-yellow urine, that suggesting oxaluria, was an indication for its use, especially if accompanied by hypochondriasis, general *malaise*, and weariness and aching of joints. Dr. Ramskill said he had found great benefit from the use of olive-oil at the Hospital for Paralysis and Epilepsy, especially in cases of lead-poisoning, after the acute symptoms, such as colic, had subsided; always in the malnutrition accompanying paralysis of the extensors of the hands; also, in Cruveilhier's atrophy; and in epilepsy, associated with great cachexia. In all these conditions, supposing cod-liver oil disagreeing, and therefore inadmissible.

THE SANITARY STATE OF LEEDS.

THE sanitary state of Leeds is described as being very unsatisfactory, the mortality being very high, and on the increase. The *Yorkshire Post*, describing the exertions of the Ladies' Sanitary Association, complains that "our rates are very high. Still some of our highways and streets (witness Kirkstall Road and other places) are in a most filthy and deplorable condition. The Lady Beck, from Meanwood to the river, is a floating mass of offensive, poisonous refuse. Smells from a thousand impure sources are felt at every turn. Our main sewers are not ventilated; our ash and soil pits are not emptied as quickly and frequently as is necessary." In a town so wealthy and enterprising, and able to command so high an order of medical ability, this is a sad and discreditable state of things, and throws a heavy responsibility upon the Sanitary Committee of the Town Council.

ST. ANDREW'S MEDICAL GRADUATES' ASSOCIATION.

THE annual dinner of the Association took place at Willis's Rooms, on Thursday, December 3rd; Dr. Richardson, F.R.S., presiding. There was a large attendance. After the usual loyal toasts, that of the Army and Navy and Volunteers was proposed by the President, and responded to by Admiral Sir E. Belcher, K.C.B., on behalf of the navy, Captain Thompson for the army, and Mr. Cooper Rose for the volunteers. The toast, "The Houses of Parliament," was acknowledged by Dr. Lush, the newly elected member of Parliament for Salisbury, and a graduate of St. Andrew's. The President proposed "Success to the University of St. Andrew's"; Dr. Tuke, "Literature, Science, and Art," acknowledged in genial and kindly terms by Professor Owen, D.C.L., F.R.S. The toast of the evening, "The President and the St. Andrew's Medical Graduates' Association," was proposed by Dr. W. Farre, F.R.S., and ably responded to by the President. A few other toasts were proposed and acknowledged. A glee-party contributed, as usual, a selection of music throughout the evening.

PRELIMINARY EDUCATION.

BY former resolutions of the General Medical Council in 1866 and 1867, which are become operative at this date, it was delegated to the Executive Committee to prepare annually, and lay before the Council for recognition, a list of examining bodies whose examinations shall fulfil the conditions of the Medical Council as regards preliminary education. Steps were accordingly taken, at the late meeting of the Executive Committee, to obtain the necessary information, for the purpose of enabling the Council to draw up such a list.

THE MEDICAL COUNCIL.

DR. ANDREW WOOD has been reappointed as representative of the Royal College of Surgeons of Edinburgh on the Medical Council for a further term of two years. Dr. Paget has been reappointed for the University of Cambridge for a further term of five years. Both had, by the lapse of their offices, ceased also, *de facto*, to be members of the Executive Committee, but have since been formally re-elected.

THE CONTAGIOUS DISEASES ACT AT ALDERSHOT.

DR. BARR, the surgeon in charge of the Female Lock Hospital at Aldershot, sends us a very encouraging account of the effect of the preventive measures in that district. We may congratulate the Government on having so zealous an officer to carry out the Contagious Diseases Act, and to superintend the only hospital which Government controls itself. Periodical examination of all liable to be in a contagious state, which is indispensable to render the Act effectual, was begun at Aldershot in April 1868. The success at first was only partial, but has steadily increased, and now all the known prostitutes are included; and, in a place like Aldershot, very few likely to spread disease escape the observation of the police. During the week ending November 21st, 105 persons were examined; of these, only fourteen were detained, and seven of the fourteen were recent arrivals in Aldershot. The average detention in hospital was, during the third quarter of 1868, 22.5 days, against 36 days in the corresponding quarter of 1867. This shows that the women suffer less severely; and the average would be even lower than it is, but for the number of severely diseased women who come into the district from a distance with new regiments, or simply in order to get admittance to the hospital. This improvement in the character of the disease enables the surgeon to keep the patients in until they have no symptom of the disease left about them. This was at first rendered impossible by the heavy pressure on the beds, and patients were discharged often before they were assuredly well, to make room for others far worse, waiting to fill their places. The number of beds, at present seventy, is still inadequate to keep vacancies ready for all the diseased women at Aldershot. This evil results from the afflux of strangers from beyond the limits of the district. But for this, the accommodation provided at Aldershot would suffice. Twelve months' experience of the Act, while proving its extreme value most incontestably, has shown some defects to be remedied before the object of the legislature can be secured. The greatest inconvenience arises from the practice of not receiving pregnant women into hospital, because there is no provision in the wards of an ordinary hospital for their reception. Still they do not desist from propagating disease on account of their condition; and Dr. Barr urges that the examining surgeon should have the power of ordering their detention in the parish infirmary while liable to communicate disease to others. Nor would this be putting a burden on the ratepayers, for the charges on the parish have been much relieved by the establishment of the Lock Hospital at Aldershot. Dr. Barr gives a terrible account of the necessity for reformatories into which young girls may be received. An anecdote we must insert. "One morning recently, three sisters, the eldest only nineteen, were among those to be examined. The youngest, a mere child, cried to go home to her mother, *so like a child* that I sent for that parent before examining the daughter. The mother told me, in a flood of tears, that her husband was out of work, and the two elder daughters dragged the youngest away with them to the camp during her absence." Dr. Barr adds that two of the sisters were retained for being infected with disease. He also most wisely insists on the good compulsory detention of these young girls in reformatories would do. Compulsory detention of young vagabond children and young thieves has done much good; and there can be no reason why its beneficent action should not be extended to young girls who have been led astray by want or thoughtlessness.

NURSING SCHEDULES.

Dr. Dobell has prepared and published, through Mr. Lewis of Gower Street, a nursing schedule, of which the objects are: 1. To assist the doctor in arranging his orders for the nurse, so that the hours for medicine, nutriment, brandy, wine, dressing wounds, baths, external applications, sleep, etc., may not clash, and that the directions of the doctor may be clearly understood by the attendants on the sick; thus saving waste of time in repeating orders, and securing that they shall not be forgotten. 2. To enable the nurse or friends to keep a record of the temperature, rate of pulse and respiration, at hours when the doctor cannot be in attendance; to make memoranda of any important changes occurring in the course of the case; and to note to what extent the various orders left by the doctor have been carried out. 3. To provide the doctor at each visit with a precise report, in writing, of what has happened since his last visit; so that he can see at a glance the present state of affairs. 4. The used schedules constitute a detailed report of the case. Now that educated ladies and well trained women are taking charge of the nursing in dangerous illnesses, no difficulty can occur in getting a schedule of this description properly used. It has already received the warm approval of many nursing sisters, who have expressed themselves as thankful at being provided with such an assistance in their labours.

THE VACCINATION ACT AND POOR-LAW MEDICAL SERVICE.

The following details relate to the consequences of the Vaccination Act. We shall be glad to receive communications on this subject from all of our readers who are themselves affected by its operation, or who have opportunities of observing them. The subject is one of great public and professional importance, and peculiarly worthy of the careful attention of our Association.—At the Clerkenwell Board of Guardians, Mr. Hill proposed, and Mr. Palmer seconded, that the resolution passed on September 15th last, adjourning the appointment of vaccinators for three months, should be rescinded. This was carried.—A report was read at the Birmingham Board of Guardians from the Vaccination Subcommittee, recommending that one efficient medical officer should be appointed to perform all the public vaccination of the parish, and that four vaccination stations should be provided. After some discussion, the report was adopted.—At Croydon, a letter was read by the Clerk, from Dr. Seaton, with regard to vaccination. The Clerk said he had conversed with Dr. Seaton on the subject; and, in the course of the conversation, Dr. Seaton expressed the opinion that £60 was quite enough for the guardians to pay for the duties required for the carrying out of the Act. Notice of motion was given concerning the salaries to be paid to the officers appointed to enforce the provisions of the Vaccination Act.—A letter was read at Woolwich, from the Poor-law Board, authorising the appointment of an assistant medical officer for the district of East Woolwich, at a salary of £80 *per annum.*—At a meeting of the Bethnal Green Board of Guardians, Mr. Burrows, who, three months ago, was appointed to procure the enforcement of vaccination, read a report. The registrars, by recent legislation, have to supply, half-yearly, to the Guardians, a list of all children born whose vaccination has not been registered. He had procured, out of about 600 cases, the successful vaccination of 121; and 115 had refused. Mr. Burrows, on the motion of Mr. Haine, was re-appointed for another three months; his salary to be £15 for that time.

It is announced that the first number of the new *Monthly Microscopical Journal*, containing the transactions of the Royal Microscopical Society, will be published by Mr. Hardwicke on January 1st.

SCOTLAND.

PRINCIPALSHIP OF THE UNIVERSITY OF ST. ANDREWS.

Professor J. C. Shairp has been appointed Principal of the United College of St. Salvator and St. Leonard, in the University of St. Andrews, in the room of Dr. James David Forbes, resigned.

THE SWINEY LECTURES.

At the concluding lecture, Dr. Cobbold, whose course given in Edinburgh has been very successful, gave a general *resumé* of the facts and conclusions set forth in his previous discourses, and afterwards argued the case both for and against the "reformed theory" of Mr. Charles Darwin. In his view, the decision "not proven" was the only one which could in the present state of our knowledge be entertained, and he did not think we were in a position to assert that "all organic beings may have descended from some one primordial form."

REBUILDING OF THE EDINBURGH ROYAL INFIRMARY.

The correspondence we alluded to last week still continues, and the feeling in favour of another than the present site for the Infirmary increases. At a meeting of the acting Committee, held on Friday, December 4th, to consider at the request of the Managers of the Infirmary the discussion in the newspapers, a resolution was passed—"That, unless the Managers of the Infirmary and the gentlemen composing the Medical School can come to an agreement as to another preferable site, and as to what buildings ought to be erected thereon, it would be highly inexpedient to bring any proposal as to change of site under the notice of the subscribers.

THE SCOTCH UNIVERSITY ELECTIONS.

The polling for the Universities of Edinburgh and St. Andrews was concluded on Friday. The declaration of the poll took place on Saturday, in the library hall of the University of Edinburgh. Professor Christison stated the result to be, for Professor Playfair, 2,322 votes, and for Mr. Campbell Swinton 2,067, leaving a majority of 255 in favour o Professor Playfair. The polling for Aberdeen and Glasgow Universities continued until Monday afternoon. Owing to the system of alternate voting for the two candidates the real interest of the fight did not begin until Thursday, when it was seen that the struggle would be a close one. It terminated by a majority for Moncrieff, of 47 votes; 2,067 having been recorded in his favour against 2,020 for Mr. Gordon. The official declaration of the poll was made in the Free Hall of Glasgow College, on Tuesday, by Vice-Chancellor the Very Reverend Principal Barclay.

THE ABERDEEN MEDICO-CHIRURGICAL SOCIETY AND HOMŒOPATHY.

A meeting has been held of the above Society, to consider the subject of the alleged introduction of homœopathy into the Aberdeen Infirmary by Dr. Reith, one of the physicians of the Infirmary and a member of the Society, as to which a correspondence is now in progress in our columns between Dr. Reith and Drs. Harvey and Smith, who, as our readers are aware, have felt it their duty to urge upon the managers of the Infirmary the removal of Dr. Reith from the staff. There were present, Drs. Beveridge, D. Dyce Brown, G. G. Brown, Corbet, Coutts, A. D. Davidson, Duncan, Dyce, Fiddes, Angus Fraser, W. Fraser, Gibbon, Harvey, Jackson, Jamieson, Keith, Kerr, Macquibban, Marshall, Ogilvie, A. Ogston, A. R. Paterson, Pirrie, Rainy, Alex. Reith, Archibald Reith, J. W. F. Smith, J. Gordon Smith, and Struthers; Dr. Ogilvie, President, in the chair. The *Aberdeen Herald* states that the meeting was unusually full. "Dr. Keith's motion," it states, "consisted of three main elements—1, a general condemnation of homœopathy as an unsound system; 2, an allegation that it is dangerous to life; and 3, a resolution to send a copy of the motion to the managers of the Infirmary for their guidance. An attempt was made to give the motion the go-by, by moving that the Society pass on to the next business; but this motion, on a show of hands, was lost, and the discussion proceeded. Dr. G. Smith, late of Rhynie, seconded the motion of Dr. Keith. Dr. Reith moved to the effect that, as the profession recognised the doctrine of similars, which had been obscured by irrational theories, the Society, while condemning these theories, should not deem it expedient to offer any opinion to the managers. The amendment was seconded by Dr. Dyce Brown, and considerable discussion followed, in the course of which it became apparent that the feeling of the meeting was against transmitting the resolution to the Infirmary managers—Dr. Beveridge moving an amendment to that effect. Ultimately, it was agreed to drop this part of the motion, and also that part of it which declared the practice of homœopathy 'dangerous to life'. Dr. Struthers disapproved of the motion, even as so modified. He disapproved of homœopathy, but disapproved as strongly of intolerance; and asked that his name should be recorded as having refused to vote. Dr. Beveridge and Dr. Macquibban also declined to vote. The rest of those present, except Drs. Reith and Dyce Brown, voted for the motion, which was, of course, declared to be carried." [The motion appears to have been carred by twenty-one votes to two against the amendment, proposed by Dr. Archibald Reith, and seconded by Dr. Dyce Brown—Drs. Beveridge, Macquibban, and Struthers declining to vote. It ran as follows: "Understanding that the practice of homœopathy has been introduced into the hospital, the Society desire to put on record their opinion that the said system is unsound and delusive."] "The next motion was that of Dr. Dyce, proposing to expel homœopathists from the Society. Dr. Dyce had been called away from the meeting to attend a case; and his seconder, Dr. Rainnie, Golden Square, proposed to withdraw the motion. Dr. Struthers objected to the withdrawal of the motion without permission of the Society. Dr. Rainnie then asked this permission; and Dr. Struthers moved that it be not granted, holding that the reputation of the Society required the distinct rejection of such a motion, and hinting that a good application of the law *similia similibus* would be to expel the members who had proposed it. He moved that the motion be taken up and rejected. Dr. Beveridge seconded the amendment. Dr. Harvey moved, as a counter amendment, that the President leave the chair. The two amendments having been put to the vote, the amendment of Dr. Harvey was carried by a majority of two; so that the motion still remains on the table of the Society."

THE PHARMACY ACT AND MEDICAL RIGHTS.

DR. ANDREW LAWRIE, L.R.C.S.Edin., of Edinburgh, and Mr. James Moir, L.R.C.S.Edin., of Aberdeen, have formally brought under the notice of the Scottish Branch of the General Medical Council some of the provisions of the Pharmacy Act from which, they say, registered practitioners apprehend injury to their interests. The Branch Council formally requested their representative in the Executive Committee to bring these letters under consideration there, and to urge upon the Committee the necessity of taking steps to procure a legislative enactment calculated to redress the grievances inflicted on registered practitioners by some of the provisions introduced into the Pharmacy Act, without the knowledge of the Medical Council, after the Act had been fully considered by them. This Dr. Andrew Wood accordingly did; and the Executive Committee, having discussed the matter, have, we understand, instructed their solicitor to take counsel's opinion as to how far the provisions of the Pharmacy Act (1868), especially Clauses I, XVI, and XXIII, interfere with the rights of registered medical practitioners, under the Medical Act, to dispense or sell drugs used in the practice of medicine.

IRELAND.

SUPERANNUATION OF POOR-LAW PHYSICIANS.

THE Council of the College of Surgeons have given directions to the law-agent to prepare a bill for the above purpose; and, as Mr. Fortescue, now Secretary for Ireland, has often expressed himself favourable to the concession, it is likely to become a Government measure. No age for superannuation is to be fixed in the Bill. It would seem desirable that the superannuation allowance should be paid out of the Consolidated Fund, from which half the medical expenses are at present defrayed. It would be unjust to charge a union with the whole allowance if an officer became disabled after a few years in its service, while he had worked a greater number of years previously in another union.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE regulations for the performance of operations by all candidates for the licence of the College have now been completed, and will be in force at the January examinations. For the Junior Class the second Tuesdays, and for the Senior the fourth Tuesdays, in January, April, July, and October, will be, in future, the periods of examination.

THE DISTRICT LUNATIC ASYLUM.

JUST before the resignation of the Government, the Lord Lieutenant appointed Dr. Tyner, of the Clonmel Asylum, to that just established in Downpatrick. The principle of promotion thus commenced in the service will give much satisfaction. Dr. Garner, of Downpatrick, has been offered the Superintendentship of the Clonmel Asylum, thus rendered vacant.

THE ROYAL SANITARY COMMISSION.

GREAT satisfaction is expressed at the extension of the Commission to Ireland, and at the selection of Commissioners. Professors Stokes and Haughton, and Sir C. Lanyon, are men whose decisions must have the fullest weight with the legislature. It is hoped that the Commissioners will make a considerable sojourn in Ireland, for in that country the sanitary organisation is very inferior to that of England.

TRINITY COLLEGE HISTORICAL SOCIETY.

THE opening meeting of the twenty-sixth session took place in the Dining Hall of Trinity College, on Wednesday evening, the 2nd inst. This meeting was summarily prohibited by the Board at the time of the City and University Elections. Among others who addressed the Society, we find the names of Sir Dominic Corrigan, Bart., M.D., and the Hon. David Plunket, the unsuccessful candidates for the city of Dublin.

JUNIOR SURGICAL SOCIETY.

THE seventh session of the Society was opened on Wednesday last, at the Albert Hall, Royal College of Surgeons, Mr. Porter, President of the College, in the chair. Several members of the profession were present. Dr. Mapother made some remarks on the advantages of such associations, and on the higher prospects students enjoyed since the establishment of the competitive system. Three of the students then read essays, and after considerable discussion on them, the proceedings terminated with a cordial vote of thanks to the Chairman.

DUBLIN PATHOLOGICAL SOCIETY.

THE opening meeting for the session 1868-9, took place in the University Anatomical Theatre on Saturday, Nov. 28th, at 4 P.M.; Dr. Gordon, President, in the chair. The following Officers and Council were elected for the year ending November 1869. *President*—A. H. M'Clintock. *Vice-Presidents*—J. M. O'Ferrall, R. Adams, J. Duncan, G. H. Porter, M. Collis, Sir D. J. Corrigan. *Council*—J. T. Banks, T. Beatty, J. Denham, C. Fleming, S. Gordon, E. Hamilton, J. S. Hughes, H. Kennedy, G. Kidd, R. Law, R. M'Donnell, B. G. M'Dowel. *Honorary Secretary*—W. Stokes. *Secretary and Treasurer*—R. W. Smith. *Secretary for Foreign Correspondence*—R. D. Lyons. Mr. Hamilton, Dr. Lyons, and Dr. Hayden, exhibited pathological specimens; and Dr. M'Clintock, the newly elected President, took the chair. A vote of thanks was passed unanimously to the out-going President, Dr. Gordon, who announced that the Society's gold medal for 1869 would be awarded to the writer of the best essay on "The Diagnosis and Pathology of the Diseases of the Tongue." There was a large attendance of the profession and of students.

THE GROWTH OF THE ASSOCIATION.

The following analysis of the great increase of number of the members during the last year, has been made and forwarded to us by an associate for publication, whose object was to ascertain in which counties and districts and Branches the increase had chiefly occurred, with a view to write to friends in districts where the increase had not kept up to the highest standard. It is satisfactory to observe that there is an increase, to a greater or less extent, in nearly every county. It will be observed that, in some counties, the Association is relatively and absolutely very much stronger than others; and there are many districts and counties where a canvass might be undertaken at this time of the year with great advantage. We shall be very happy to assist by furnishing the necessary copies of documents, believing that it is desirable in the interests of the profession that the Association should be as nearly as possible inclusive of the whole profession, with a view to mutual counsel, intercourse, and a common organisation; and satisfied that the scientific and literary advantages which the Association is able to offer for its modest annual subscription of a guinea, are such as to make the membership a considerable boon to every one who takes it up. Cumberland, Yorkshire, and Middlesex, afford notable examples this year of considerable increase due to such special local exertions. The three together have furnished 213 new members; one-third of the whole number who have joined. We commend this matter to the consideration of the Branches and their officers.

Increase of the British Medical Association during the Year 1868.

	1867.	1868.	Increase.	Decrease.
Bedfordshire	23	27	4	—
Berkshire	22	29	7	—
Buckinghamshire	25	25	—	—
Cambridgeshire	33	35	2	—
Cheshire	90	94	4	—
Cornwall	24	24	—	—
Cumberland	8	59	51	—
Derbyshire	46	46	—	—
Devonshire	76	75	—	1
Dorsetshire	11	12	1	—
Durham	58	83	25	—
Essex	22	26	4	—
Gloucestershire	102	117	15	—
Hampshire	48	65	17	—
Herefordshire	10	12	2	—
Huntingdonshire	14	14	—	—
Kent	139	145	6	—
Lancashire	246	283	37	—
Leicestershire	32	33	1	—
Lincolnshire	48	52	4	—
Middlesex	418	536	118	—
Monmouthshire	7	11	4	—
Norfolk	29	39	10	—
Northamptonshire	49	52	3	—
Nottinghamshire	27	39	12	—
Northumberland	29	37	8	—
Oxfordshire	9	30	21	—
Rutlandshire	2	2	—	—
Shropshire	77	80	3	—
Somersetshire	105	118	13	—
Staffordshire	52	81	29	—
Suffolk	51	53	2	—
Surrey	105	120	15	—
Sussex	69	94	25	—
Warwickshire	149	168	19	—
Westmorland	1	7	6	—
Wiltshire	22	26	4	—
Worcestershire	43	51	8	—
Yorkshire	161	205	44	—
Wales	116	118	2	—
Islands	4	4	—	—
Scotland	55	77	22	—
Ireland	386	376	—	10
Army and Navy	14	24	10	—
Colonies, etc.	46	49	3	—
Honorary Members	15	35	20	—
Total			675	11

Total Gain........ 664

PROTOXIDE OF NITROGEN AS AN ANÆSTHETIC.

First Report of the Joint Committee appointed by the Odontological Society of Great Britain and the Committee of Management of the Dental Hospital of London to inquire into the Value and Advantages of the Protoxide of Nitrogen as an Anæsthetic in Surgical Operations.

This, a preliminary Report of the Committee, was presented by Mr. W. A. Harrison, Chairman of the Committee, at a crowded meeting of the Odontological Society on Monday evening. By the kind permission of Mr. Harrison, we are enabled to give a digest of the Report; but this we must, however, curtail more than we would otherwise have done, owing to pressure on space.

The Committee, after paying a just tribute to the great service done by Dr. Evans in introducing the gas successfully as an anæsthetic into this country, proceed, in the first place, to consider in detail how far nitrous oxide gas is an efficient anæsthetic. To ascertain this, experiments upon various lower animals were instituted. From these, they arrived at the conclusion that it was free from atmospheric air, a powerful anæsthetic, more rapid in its action, although more evanescent, than chloroform and other anæsthetics; and that although, if pushed, it produced death, still the animals were often speedily brought round, when apparently dead, by the admission of air.

They next proceeded to arrive, if possible, at the conclusion whether, as an anæsthetic in man, it was as safe as, or safer than, those in general use. To this they give a guarded answer for the present; stating, however, that it is at least as safe, for short operations, as any other anæsthetic.

They next enumerate the conclusions arrived at, founded on 1,380 cases watched and carefully reported on by the various members of the Committee, and on 1,051 reported to them on trustworthy authority, as to the advantages and disadvantages of the gas. The advantages are, shortly, these: the rapidity of its effects in producing anæsthesia, the shortest time being twenty-five seconds; rapidity in recovery; its agreeable nature; its being tasteless and less irritating; almost entire freedom from nausea and vomiting, occurring in less than 1 per cent.; absence of headache and vertigo, as a general rule, after complete recovery from the anæsthesia. The disadvantages are noted as consisting in its unsuitableness for long operations, on account of the rapidity of recovery; in the difficulty of making and transporting the gas, and also the expense of the agent; in its being troublesome to make, and requiring unusually complicated apparatus in its administration; in the undesirability of quick recovery in operations followed by much pain; in the administration being occasionally accompanied by twitchings which render it unsuitable for delicate operations.

The Committee next took up the physiology of its action, with the view to obviate, if possible, any serious results which might follow in its administration. They confess they are as yet unable to explain the *rationale* of its action; but recommend, from experience with lower animals, that, when dangerous symptoms appear, the exhibition be at once suspended, and, should respiration not take place, artificial respiration be resorted to.

The Committee recommend, as the best, most convenient, and cheapest method of procuring the gas in a pure state, the plan of Messrs. John Bell and Co. In its administration, they observe that, whatever instrument is employed, it ought to be as air-tight as possible; but they offer nothing fresh, of importance, in this respect, or in the mode of administration. There are, however, a quantity of useful practical details given of considerable interest.

As regards the question, whether there are any special conditions of the system contraindicating its use, they can only say that they have administered it in persons in various stages of pregnancy, in suckling women, in persons subject to asthma, epilepsy, and the like, without any deleterious effects. They, however, advise caution, especially in those affected by disease of the heart, vessels, or lungs. They conclude by drawing the attention of the profession to the success attending the anæsthetic in America by Dr. Colton, and in France by Dr. Evans; and observe that they propose to prosecute further experiments on the subject, which they hope to lay before the profession at some future time. An appendix of interesting cases is attached to the Report.

A long and interesting discussion followed the presentation of the Report.

The Committee consists of Messrs. F. M. Braine, J. T. Clover, A. Coleman, J. Drew, C. J. Fox, Dr. Frankland, Messrs. S. Gale, W. A. Harrison, R. Hepburn, T. H. Hills, G. A. Ibbetson, Dr. J. Murray, Messrs. C. De Morgan, J. Parkinson, H. Potter, Dr. Priestley, Messrs. C. Rogers, J. Tomes, and T. Underwood.

REPORT

ON

THE METROPOLITAN HOSPITALS.

III.—THE METROPOLITAN FREE HOSPITAL.

THIS hospital was originally instituted in Carey Street in 1836, but was removed to Devonshire Square, Bishopsgate, City, in the year 1849. It was enlarged 1853. It was opened "for the gratuitous relief of the sick poor of every nation and class." It was merely a dispensary until the year 1843; when, at the instigation of His Royal Highness the late Duke of Cambridge, wards were opened in the hospital. Situated in a densely populated locality, in proximity to Petticoat Lane, the number of patients rapidly increased. In 1852, the total *attendance* of out-patients (the number of new patients not being given in the annual reports), was 49,546; which increased in 1862 to 103,983. A decrease, however, was observable afterwards; and in 1866 it had diminished to 74,869. This was, however, due to a necessary limitation of patients from want of sufficient funds. The average number of *new* patients, if we may judge from the weekly reports in the daily papers, is about two-fifths of the usual attendance, which would reduce the number relieved in 1866 to about 30,000.

This hospital, in common with other advertising hospitals, adopts the system, in its annual reports, of publishing the *attendance only* of patients throughout the year; which may mean anything, and not the number of *new cases alone.* This plan is apt to mislead the public; and is unfair to those hospitals which adopt the proper course of stating only the number of persons relieved or attended to.

The hospital, as it at present stands, is composed of two old private houses communicating one with the other, and is an example of that short-sighted and pernicious system, unfortunately too common, which attempts to combine economy with the modern requirements of a hospital. One house—which we shall for convenience call the new house—is devoted to the kitchens, secretary's rooms, and wards; the other—the old house—to the dispensary, out-patient rooms, house-surgeon's rooms, with a couple of wards and garrets used for various purposes.

The out-patient department is the leading feature of the institution. The hospital is generally besieged in the morning by patients seeking relief. The funds of the hospital being insufficient to meet the unlimited demand, the managers have been under the necessity of reducing the number of fresh admissions, as regular out-patients, to eighty daily. Other fifteen letters are, however, allowed by the Committee, if urgently required. The average number we believe to be about ninety daily, excepting Sunday. The letters are available for two months. Cases of diarrhœa or casualties are of course admitted without a letter. The latter, however, we were surprised to find, were exceedingly few. The out-patients' letters are divided as equally as possible by the porter, amongst men, women, and children. Of the eighty new daily admissions, fifty are supposed to be medical cases, and to be seen by the physician or assistant-physician, the other thirty surgical cases, to be seen by the surgeon. The out-patients attend at one o'clock, and are admitted to the out-patient rooms; the new patients by letters, and the old patients by numbered tickets. The exact number seen is thus known. There is no registration, except of casualties. The patients generally are very poor, and form a marked contrast to a large number of those seen at the Royal Free Hospital.

The prescriptions are written on slips of paper, with directions for attendance, etc. We are sorry to see that several members of the staff allow their private addresses to appear on these slips.

The out-patient waiting-rooms are totally inadequate for the purpose. They are confined to the old house, and occupy the ground and first floors. Above are wards; and on the basement are the dispensary and stores attached. The out-patient rooms are very dirty, and far too small; the staircase, which also leads to the wards above, is equally dirty, and generally crowded with male and female out-patients. The physicians' and surgeons' out-patient rooms are a decided improvement in this respect; they are fairly clean. Much cannot be said of the furniture however, which is poor, much of it old, and greatly in need of repair.

The dispensary is in the basement of this house. It is absurdly small, and of necessity in great confusion. The two dispensers say they manage, however, to make almost all the preparations in use, with the exception of plaisters, the various tinctures, and a few of the infusions or decoctions. There is a cellar, used as a store-room for large quantities of the more bulky remedies, as cod-liver oil, etc.

The wards are seven in number, with from two to six beds in each, and containing altogether about twenty-seven beds. They are chiefly situated in the new house; a couple of wards, however, previously alluded to, being on the second floor of the old house, above the out-patient department. The cubic space allowed to each patient is fair. This, however, was lately much improved, in consequence, we are told, of the appearance of our report on the Royal Free Hospital. A committee of the medical staff was appointed to report on the subject, which resulted in a decrease in the number of beds in some if not in all of the wards. It would appear from this that the hospital authorities are desirous of remedying the defects of their institution. We shall, therefore, watch with interest, the effect of our remarks on the Metropolitan Free Hospital. Two of the wards are set apart for the sick poor of the Jewish community, who reside in large numbers in the neighbourhood. This may be understood from the fact that 6000 Jews are treated annually at the hospital. Another ward is set apart for diseases of children; and a fourth as an ophthalmic ward, which latter, however, we have been told, has not been used as such on any occasion. It was empty at our visits. The wards generally are small. The walls are papered, which should not be. The hospital bedding is mostly good, and kept clean and tidy; no pillow-cases are used, the under-sheet being brought over the pillow in place of one. Most of the furniture, however, is very much in want of repair. In Gurney Ward—undoubtedly the best ward in the hospital in every respect—it is very fair; but in the other wards half of the chairs are broken. In one of the wards where there were two chairs, both were broken—indeed, it was the exception to find an entire chair. In the Children's Ward, the only apology for a washhand-stand was an old chair, the basin being thrust through the broken cane seat. In each of the wards is a dining-table for those able to get up.

There are no bath-rooms, and only two sitz-baths supplied for the use of the patients.

The water-closets—one for the males, and another for the females—are amongst the worst features of the hospital. The female water-closet is a small and dark box on the second floor of the new house, opposite the matron's bedroom-door. It is not lighted, and there is no attempt to obtain ventilation from the external air. The male water-closet opens out on the staircase of the old house. It is, like the other, dark, and with no ventilation. It has, in addition, a very bad trap, and is kept in very indifferent order. Notwithstanding the use of disinfectants, its presence is felt over the greater part of the house. It is certainly not improved by the sink in its neighbourhood, into which slops are thrown. There is, however, an abundant supply of water in both water-closets.

One of the garrets of the old house is used as a drying-loft and for picking flock. It is very much in want of repair, and the roof is apparently falling in. The staircase-landing is also used for drying clothes. The paper on the staircase walls is torn, and hanging down in large pieces. The other garret is used as a lumber and *post mortem* room. It is needless to remark that this arrangement ought not to continue a single day longer. Into this place, the bodies are brought up by the porter, with the assistance of the nurse. The bodies must be removed within twenty-four hours. The floor, at our visit, was bespattered with blood, as were also two pair of calico-covered steps. We are afraid it does not see the scrubbing-brush so frequently as it ought. This place, and the two rooms now transformed into a ward for children's diseases, were opened as cholera wards during the late epidemic in the East of London; and a special sum of money—£100, we believe—was granted to the hospital by the Mansion House Relief Fund, to assist in defraying expenses. Although a number of out-patients were treated for diarrhœa here, as at all hospitals, these wards were, however, *on no occasion* required for cholera patients. It is a pity the Managers did not state so, instead of trying to make capital by putting the following into their annual report. "The demands upon the resources of the hospital during the prevalence of cholera were excessively heavy; and to the prompt assistance rendered in upwards of 5000 cases, may be attributed, in great measure, the almost total absence of fatal cases within and around its walls. Through the liberality of the public, your Committee were enabled, at the outbreak of the malady, to set apart three rooms for the reception of cholera patients; which, being no longer required for that purpose, are being converted and fitted for the special treatment of *sick children.*"

There is no operating-room; the surgeons' out-patient room, or the ward, being used for the purpose.

Instruments are certainly not plentiful in the hospital. There are a few catheters, scalpels, tongue-depressors, and such like; but otherwise the hospital is badly found in this respect. The surgeons at one time, we believe, were required to bring their own instruments; and we are told this necessity not infrequently still exists; in some instances, doubtless, because instruments, before being purchased by the hospital, must be ordered by the Medical Committee, which meets only once a month. An arrangement has been made by the Secretary with a distant instrument-maker to furnish temporarily those required for operations, for which the Secretary gives orders. Although it cannot be expected that a hospital with a limited in-patient department and comparatively small income should supply all necessary instruments, still, we think, there is room for considerable improvement in this respect; and that the arrangements in this department, ill defined in every way, and liable to create misunderstanding, should be more under the management of the staff than it appears at present to be.

We have reason to believe that certain resolutions, unanimously passed by the Medical Committee, one of which was to request the Weekly Board to appoint one of their number a member of the Board, will not be settled in favour of the Committee.

There is at present a reliable and properly qualified, but badly paid, Resident House-Surgeon, who attends to a large number of out-patients, in addition to his usual ward work. The Medical Committee, recognising the insufficiency of the salary attached to the appointment, recommended that the House-Surgeon should receive at least an income of £100 a year, instead of £60 a year, as at present, and more especially as board is not provided by the hospital. Previously, we believe, the House-Surgeon received a still smaller sum; and then, as now, he was constantly changing. This points to something wrong.

The matron of the hospital acts also as head nurse. She is furnished with two rooms. Her sitting-room is on the first floor of the new house, and her bedroom on the second floor, both comfortable and fairly furnished.

The nurses' dormitory is on the first floor of the new house, near Gurney Ward. It is the dirtiest and most untidy room of the sort we have ever seen. There are in it four beds, two of which were unoccupied at our visit. Those occupied were without sheets, and, of course, as no pillow-cases are used, the pillows were uncovered, and these were very dirty. The sheets, we were told, were being that day changed. In this room is a large cupboard, in which the clothes of patients, often far from clean, are kept. On a chest of drawers, close to the door, was a bottle of diarrhœa-mixture. We were told, much to our surprise, that patients suffering from diarrhœa came here during the day. During the night, the mixture was kept on a table outside the door, and supplied there when required. The mixture was spilt all over the spot. This arrangement is much to be deprecated, and is quite inexcusable. There are regular out-patients' rooms, where all out-patients of this kind should be attended to. Quantities of rubbish of every sort lay about the room.

There are two kitchens. One is set apart entirely for the Jewish cooking. It is on the second floor of the new house, adjoining the Jewish wards. It is very dirty, and kept in bad repair. The furniture is mostly old and broken. The walls are almost black, and have not been whitewashed for five years. A quantity of clothes and other sundries adorn the place. The other kitchen, on the dingy basement floor, is much too small, and very badly lighted. It is, however, kept in very good order by the cook, the wife of the porter. They have comfortable apartments adjoining for their own use.

The nursing arrangements are very bad. The matron is head nurse of the hospital. She is expected to look after the severe cases which require good nursing, and is, we were told, frequently up the greater part, if not the whole, of the night attending to such cases. She does a great part of the dressing in most of the wards, and the whole of the dressing in the Jewish Wards. The Jewish cook has charge of the male and female Jewish wards; and, with the exception of attending to wounds, she is expected to take the general charge of these wards, make the beds, do the scrubbing, give medicines, and attend to the dieting of the patients. In addition to these, there are two other nurses: one, a probationer and quite a young person, has charge of the Children's Ward, where she has to do most duties, together with the scrubbing of her own ward and part of the staircase; the other attends to the general nursing and the care of the remaining Christian wards. There is no night nurse, except on special occasions when urgently demanded; we believe, however, this will speedily be remedied. The scrubbing and washing are done chiefly by the nurses; a scrubber and general servant doing the rest. The nurses take their meals in the wards, but everything is cooked in the kitchen. The under-nurses wear no regular dress, and look most untidy, to say the least of it. Small as the nursing staff is, the wages are far too low to secure, except by good luck, the services of properly educated nurses. The head nurse appears to be a valuable servant to the hospital, and understands nursing well; but she is greatly overworked. Although acting also as matron, she receives only £30 annually—a sum which, with one or two exceptions, is less than most first class head nurses receive in the large London hospitals. The under-nurses, again, are also underpaid, receiving only £15 a-year. This may, however, be increased. The probationer in charge of the Children's Ward receives £10 a-year, a small sum considering that she is intrusted with the full charge of the ward, and does a good deal of scrubbing and other work.

When we come to the financial management of the hospital, we find considerable difficulty in ascertaining the actual cost of the various items during the year, because of the loose manner in which the annual reports are prepared. The report for the past year, which should have been issued in the spring, did not appear; for what reasons, we are unable to state. The funds, judging by the report for 1866, appear to have been not squandered upon all the in-patient departments; for "board and maintenance of in-patients, house-surgeon's salary, and wages of matron, nurses, and servants", come to a sum not exceeding £721 : 3. On turning to the item, drugs and dispensary expenses, we find that, after deducting the salaries of the Dispenser and Assistant-Dispenser, £90 and £31 : 12 respectively, and adding the sum of £51, included in "beer, wines and spirits", and used in the Dispensary, the cost of this department amounts to £1795, which we think very high, considering the small number of in-patients treated at the hospital, who always incur a much heavier expenditure than out-patients. But, setting this aside altogether, it is unaccountably heavy. At St. Bartholomew's Hospital, with 133,000 patients last year, more than four times the number of the Metropolitan Free, and of whom about 5800 were either in-patients or lying-in patients, the same item amounted to only £3537. University College Hospital, with 32,000 out-patients, 1260 in-patients, and 717 lying-in patients, the sum spent in this department was only £1536 : 9 : 8. Guy's Hospital, with 75,000 out-patients, 5245 in-patients, and 1727 lying-in patients, spent £3181 : 16. At King's College Hospital, in 1866, with 34,000 patients, over 2000 of whom were in-patients or lying-in patients, it came to £1100. At Middlesex, with 22,000 patients, of whom nearly 5000 were in- or lying-in patients, the same item did not exceed £1254 : 12 : 5. A ratio, more or less constant, is apparent in all similar accounts we have examined of numerous London hospitals—a ratio which is greatly exceeded by the Metropolitan Free Hospital.

The expenses incurred for "advertising, postages, and messengers", appear to have cost the hospital £354 : 3 : 1 for one year, which, out of an income of £5700, is surely extravagant; especially when we take into account the additional sum of £158 : 8 : 6 spent in "printing, stationery, etc.", and nearly £450 for salaries of Secretary, Collector, and other office expenses. We quite understand the difficulty which a non-endowed hospital has in raising funds; but these items appear to us greater than the income of the hospital would lead us to expect. We may mention that we have received several communications from the Secretary, stating that most of the items are affected by the payment of liabilities incurred during the previous year. We are, however, unable to see how this can make any appreciable difference, as the liabilities paid annually have varied little for some years back, and still remain the same.

Although the management of the Metropolitan Free Hospital is certainly such as requires radical reform, there are still some extenuating circumstances which we must, in justice, mention. In the first place, one of the houses is rented by the managers from year to year. It is not, therefore, to be expected, however prudent the management, that the managers should permit great outlay on premises held under such circumstances. Again, the directors of the Metropolitan Railway Company gave notice, so far back as 1865, that they would require the hospital premises for the extension of their line. Although that Company has not as yet carried out its intention, still the managers of the hospital are placed in a position rendering it undesirable to expend more money on the buildings than is necessary for the proper treatment, the cleanliness, and the comfort of the inmates and patients.

But we find that the necessaries and the hygiene of the hospital have not been attended to. The hospital is badly found, the nursing is inferior, the ward furniture is greatly in want of repair, the ventilation is in some instances especially disregarded, and the hospital in many parts in a state of uncleanliness, which is inexcusable under any circumstances.

The out-patient department is also mismanaged; but, in this respect, it does not stand alone. The members of the staff are expected to see thousands of patients, for whom it is impossible to prescribe properly in the time allotted to each; and who besides, at this season, are fitter objects for the administration of a basin of soup or a mutton-chop than quinine to give them appetite for food which they cannot obtain.

Undoubtedly, the Metropolitan Free Hospital—all honour to its promoters—has done, and continues to do, a vast amount of good, and that chiefly among the indigent poor, which cannot be said of all free hospitals; but still we cannot but think that it would increase tenfold its usefulness, and especially during the coming winter, were it to keep its wards continually full, and pay more attention generally to the comfort of its in-patient department, than expend the greater part of its income on drugs alone, which are frequently of doubtful benefit in out-patient practice, and especially under present circumstances.

The Committees of Management do not work well. The Medical Committee has not sufficient voice in the direction of the hospital; and, until there is some better understanding between the members of the staff, as a body, and the Committee of Management, we cannot see much prospect of the radical changes required throughout every department of the institution, not even excepting the Secretary's.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

The next meeting of this Branch will be held at the Greyhound Hotel, Croydon, on Thursday, December 17th. The Chair will be taken at 4 P.M. by Dr. CARPENTER.

Papers, etc., are promised by Dr. Carpenter, Mr. Cope, Dr. Jeaffreson, Dr. Adams, etc.

Dinner will be provided at 6 P.M.

HENRY T. LANCHESTER, M.D., *Hon. Secretary.*
Croydon, December 5th, 1868.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM A SPECIAL CORRESPONDENT.]

The Medical Session.—Amalgamation of Medical Societies.—A Medical Library.—The Lying-in Hospital.—The Children's Hospital.

THE work of the medical session has been actively carried on since its commencement both at the Queen's College and the Hospitals. There has been no lack of subjects for dissection, which has been a serious source of anxiety in former years. In this point, at all events, the union of the schools must be considered an advantage, as avoiding the waste of "parts," which frequently occurred when the men and the bodies were divided between two schools. Amalgamation seems to be the order of the day. It is proposed to unite the two Medical Societies of this town. More than two-thirds of the members of the Midland Medical Society also belong to the Birmingham Branch of the British Medical Association, and it was thought by many of the leading members of the former, that the union of the two would in no ways prove injurious to either, while a certain amount of money would be set free, which might be applied to some more useful object. The committee and members of the Midland Medical Society have been actuated by a most liberal spirit in the matter, as their society is as successful as it has ever been, if not more so, and had every prospect of continuance of success. It is proposed, moreover, to establish a medical library for the town and district; and it is hoped that the books, periodicals, and also the annual subscriptions to the Midland Medical Society, will be transferred to the library. The necessity of a medical library has long been felt, and I think there is no doubt that donations of money and of books will be liberally made by the profession: by the juniors, because they require their use; and by the seniors, many of whom have accumulated large libraries, for the benefit of their younger brethren. The chief difficulty will be the choice of a suite of rooms, which must be central and commodious; such will, doubtless, be expensive. Possibly the authorities of Queen's College might be able to provide the accommodation, receiving, as a *quid pro quo*, the permission for their students to make use of the library with suitable restrictions.

The process of dying of our Lying-in Hospital is very slow. Some time ago it was found that the expenses attending the Institution were so great, compared to the amount of work done, as to justify the election of a committee to inquire into the propriety of continuing the charity in its present form. It was decided to change it into a Maternity Charity, and to sell the present building. A meeting, held a few days ago, referred this latter part back to the committee for reconsideration, though it is difficult to conceive that any amount of reconsideration can induce the committee to consider the present expensive building necessary for an outdoor maternity charity, or to advise the re-formation of an indoor department with its many evils and dangers.

Very shortly the Children's Hospital will move its out-patient department to a separate site. This new building is one of the most beautiful in the town, in the gothic style, and presenting every convenience for the purpose it is designed to serve. It is situated in the immediate neighbourhood of the most densely populated part of the town; and therefore, though somewhat lost to view, its utility to the sick poor will be eminently greater than if it were placed in a more conspicuous but less suitable position. I suppose that the next move of this thriving charity will be to take its in-patient department somewhere in the suburbs, where the patients may have the benefit of fresh air, and a field for convalescents. This seems to settle, most satisfactorily, the vexed question of hospital administration, as to whether hospitals should be reconstructed in their present, often inconvenient and unhealthy, sites, or be removed to suburbs, viz.:—where such a step is possible, to remove the in-patients to a healthy locality, and keep the out-patient department in the immediate neighbourhood in which it is required. Of course, in general hospitals, where the in-patients are, many of them, suffering from severe accidents or acute disorders, it is questionable whether such a step could be safely taken.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, NOVEMBER 27TH, 1868.

SIR THOMAS WATSON, Bart., M.D., President, in the Chair.

MR. BRUCE communicated a case illustrating the advantages derived from Tracheotomy as a remedy for Acute Diseases of the Larynx.—Dr. MARCET remarked on the rapid recovery in this case. After referring to various causes of dyspnœa in these affections, and after relating some cases which had come under his notice, he observed that he thought it probable that the spasms, so often observed, were due to the congestion of the lungs from impeded pulmonary circulation. In such circumstances, tracheotomy offered relief by removing the congestion of the lungs.—Mr. HOLMES made some remarks respecting the different causes of dyspnœa in these affections.—Dr. WILLIAMS dwelt upon the good effects produced by the use of antispasmodic remedies, and alluded to the beneficial effects of chloroform vapour.—Mr. THOMAS SMITH thought it scarcely necessary to regard the lung-congestion as the cause of the spasms of the larynx, and alluded to the frequency with which the admission of cold air through the trachea was followed by pneumonia.—Mr. KESTEVEN mentioned his experience as to the great danger from the supervention of spasm in these cases.—Mr. BRUCE referred to some instances in which the use of chloroform had greatly added to the severity of the symptoms.—The PRESIDENT drew attention to an instructive case, in which Sir Charles Bell was about to perform tracheotomy, when he observed the scar of a previous operation over the front of the trachea. This led to further inquiries and the postponement of the operation. The patient, a young woman, presently recovered from what proved to have been a purely hysterical affection. The President made some further remarks, enforcing the importance of distinguishing this class of spasmodic affections of the larynx.

Dr. POWELL communicated two cases of Chronic Disease of the Lungs, presenting the characters of "Fibroid Phthisis." His remarks principally related to treatment. He enforced particularly the importance of ensuring the complete resolution of acute pneumonia or pleurisy before allowing the patient to resume his usual mode of life, and recommended iodide of potassium and alkalies as the most important remedies. He had also derived great advantage from iodine inunction.—The PRESIDENT called upon Dr. POLLOCK, who, in conjunction with Dr. ANDREW CLARK, had been appointed at a former meeting to report on Dr. Powell's cases. Dr. Clark being absent, Dr. Pollock said that, as the report on the cases was in the hands of his coadjutor, he much regretted that it could not be read to the Society; the more, as, although Dr. Clark agreed with him in every particular as regarded the facts, he was not entirely at one with him as to their significance. He regarded both of the cases under discussion as having originated in acute pneumonia or pleuro-pneumonia. One appeared to him still to come under this heading; while in the other the primary condition had been followed by tuberculosis of the opposite lung. In the course of his observations, Dr. Pollock adverted to the charge of too great comprehensiveness made by Dr. Clark against those who use the word phthisis in the ordinary sense; and, in return, submitted that Dr. Clark himself had brought together under one term, that of "Fibroid Phthisis," a number of cases, some of which were certainly not phthisis, while others did not possess the anatomical characters which he had himself described as those of "fibroid" change.—Dr. C. J. B. WILLIAMS adverted to cases in which pulmonary contraction arose from repeated attacks of bronchitis, independently of pneumonia or pleurisy. He agreed with Dr. Pollock in regarding such cases as of rare occurrence. He considered that, under the circumstances, fibroid change was a curative process; in which respect he differed entirely from Dr. Clark.—Dr. **Greenhow** drew the attention of the Society to the form of contracted lung which is met with in persons with chronic bronchitis resulting from the inhalation of pulverulent substances.

IRELAND.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS OF IRELAND.

Second Meeting, November 25th, 1868.

Fleetwood Churchill, M.D., President of the College, in the Chair.

The Therapeutic Application of Heat and Cold. By D. B. Hewitt, L.K.Q.C.P.—After a short preliminary historical notice of the effects attributed to heat and cold as therapeutic agents, he proceeded to say that his chief object in bringing the matter under the notice of the Society was, to elicit the experience of any member who might have tried the method recommended by Dr. John Chapman of London. He did not think that a sufficient number of cases had, as yet, been adduced to furnish matter for an induction so extensive as to be probably true; but the facts as observed by him were quite in accordance with those detailed by Dr. Chapman. He had not seen any thermometrical observations respecting the effect of heat and cold to the spine, with the exception of those which he had brought under the notice of the Society last year. He then detailed several cases in which the use of those agents had been remarkably successful; and a few cases in which they failed to do good. Among the former, he enumerated a case of amenorrhœa, with very violent cephalalgia and spinal pain, in which, after the failure of drugs and dietetic treatment, the ice-bag had been used; the result being that the headache and spinal pain were quite removed, and the menses returned, after the use of a blister to the sacrum, so profusely as to be almost menorrhagic. Ice had been used, with excellent effect, in two other cases of cephalalgia, but in these cases applied to the head. He referred to three cases of delirium tremens treated, by Mr. Hamilton of Steevens's Hospital, by the ice-bag, as recommended by him last year; and he gave some interesting thermometrical observations of a case of delirium tremens lately treated by himself on the same plan. When the ice was placed along the spine, the temperature of the axilla rose, and the pulse was increased in frequency, while the profuse sweating was checked; afterwards, it was thought well to put the ice to the head, when the result was diminished frequency of pulse and a fall in the temperature. A case of obstinate vomiting, occurring during pregnancy, which had resisted all treatment, was quite checked, and even nausea was removed, by the application of ice to the lower dorsal and upper lumbar spines. In a case of spinal myelitis, the temperature was raised, the pulse diminished in frequency, while it became fuller and stronger, and hyperæsthesia of the upper extremities was removed, by the use of ice, and the paralysis was greatly diminished. In a case of chronic hemiplegia, it had failed to relieve the rigidity in the flexor muscles of the forearm, or to benefit the paralysis; and, in a case of chorea, the result was not encouraging. He referred to a case of chorea, published by Dr. J. H. Benson, in which this method was successful, after the use of a brisk purgative. In conclusion, Dr. Hewitt gave his experience of the use of the hot-water bag in some cases of bronchitis. One of these was a case of chronic catarrh; and, though no expectorant was given, in three or four days the expectoration had become much more abundant, the dyspnœa was greatly relieved, and the cough considerably lessened. The thermometer revealed, on one occasion, after two hours' application of the hot water, a decrease of seven-tenths of a degree; and, on another day, the temperature decreased at first, but subsequently rose.

Dr. **Benson**, jun., referred to several cases recently treated by him with the ice-bag. He believed the manner of its application, and the length of time necessary for its use, had not been sufficiently understood; and hence its frequent failures as a remedial agent.—Dr. **Atthill** strongly advocated its use, and related a case of menorrhagia, in a girl aged 15, in which he had applied it with remarkable success.—Dr. **Aquilla Smith** thought there was little novelty in the idea, and quoted the works of Bartholinus (*De Usu Nivis*), Macartney, Beaupré, Ambrose Paré, and others, in support of his statement.—Dr. **Belcher** approved of Dr. Hewitt's paper, and noticed the treatise of Esmarch, *On the Use of Cold in Surgical Practice.*—Mr. **Croly** gave an interesting account of a case successfully treated by him with the ice-bag.—Mr. **Thorpe Porter** had cured a case of hæmorrhage with it.

CORRESPONDENCE.

THE DUBLIN UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.

Sir,—In the article which refers to the Dublin University Medico-Chirurgical Society, in your last number, your informant here has misled you in several particulars.

In the notice of the meeting, I am represented as having made strictures on the system of medical graduation in Cambridge and Oxford. I did not allude to either of these great Universities in my speech.

Again, I am made to say that I approved of special training for schoolboys destined for the profession. To this proposal of the Auditor, I especially demurred; and I gave a very qualified opinion as to the views of the Teachers' Association.

I enclose to you a *verbatim* statement of what I did say on the occasion. I am, etc., Wm. Stokes.

Merrion Square, Dublin, December 1863.

HOMŒOPATHY IN THE ABERDEEN INFIRMARY.

Sir,—In your impression of the 28th ult., I requested my colleagues, Drs. Harvey and Smith, to show cause why they consider my therapeutic views objectionable.

In the Journal of last Saturday, Dr. Smith, for himself and Professor Harvey, simply repeats the charge made against me, declining to substantiate it, and leaving it to you and your readers to decide the question.

Dr. Smith says he always considered my Infirmary Lectures, which were printed two years ago, along with his own, as favouring homœopathy, and yet he and Dr. Harvey tolerated the practice of these views in the Infirmary. Besides, the Medical Society, before which my views were expounded in the three papers read before it, and subsequently published in the *Edinburgh Medical Journal*, showed a perfect willingness to tolerate my doctrines, however some individuals may have argued against them. It is evident, therefore, that whatever opinion the profession may have formed of my views, they have not considered them heretical and beyond the pale of toleration.

In what respect is the situation now changed, so as to justify this movement on the part of my colleagues? I find nothing to answer this question in Dr. Smith's letter, except his reference to the fact that I had ordered into the Infirmary, and in certain cases prescribed, some high dilutions confessedly subject to the opprobrium of being distinctly homœopathic.

Now I will frankly proclaim through you, what I should have explained to my colleagues with an equal frankness, had they made their inquiries in what seemed to me a friendly manner, that I used these dilutions in one or two cases of obstinate constipation, which had resisted other means of treatment, not because I believed in them, but to test the truth of the allegations made by homœopaths, that such preparations have the power of removing the tendency in question. And now let me add that, in the very few instances of the kind in which I have tried these dilutions, they have proved as harmless as my colleagues credit them with being, no result whatever having been obtained. I cannot, therefore, from experience, endorse the homœopathic assertion; when I can, I shall be honest enough to say so. Now all this would have been explained to the satisfaction of my colleagues, had they, as in duty bound, conferred with me personally, instead of jumping to conclusions, and threatening me with the displeasure of the Managers unless I desisted from the use of medicines of which they disapproved, and the practice of what they are pleased to call homœopathy.

There is no rule in the Aberdeen Infirmary, requiring consent of either the staff or the managers to the introduction of new medicines, nor, I presume, in any hospital in the world. I do not think that any conscientious medical man could submit to be so restricted.

Again asking my colleagues to substantiate their charges that my views are neither "sound nor rational," I am, etc.,

Aberdeen, December 1868. Arch. Keith.

THE INADEQUATE REPRESENTATION OF THE PROFESSION IN THE GENERAL MEDICAL COUNCIL.

Sir,—As I was unable to be present at the Meeting of the Metropolitan Counties Branch, held December 8th, to discuss this subject, I beg leave to avail myself of your paper in order to submit a point to which I think sufficient attention has not been paid. It is no exaggeration to affirm that nine-tenths of the profession practise obstetrics; and no one will dispute that the public is deeply interested in promoting a sound education, and in removing many anomalies in the practice of obstetrics.

Is it unreasonable to ask that a Council whose function it is to regulate the education and practice of medicine, should possess a fair proportion of men competent, not alone by good intentions, but by experience, to uniform it and strengthen its deliberations in what concerns obstetrics?

Yet the Colleges, Universities, and the Government nominees scarcely contain a member who can be said to represent this important department. The Colleges, Universities, or Government could hardly be better represented; but I must respectfully demur to the assumption that the mass of the profession or the public are adequately represented.

I am, etc., ROBERT BARNES.

46, Finsbury Square, December 1868.

THE MERCURIAL VAPOUR BATH.

SIR,—In your notice of Mr. Barton's book, on the *Pathology and Treatment of Syphilis*, in your last issue, I find a statement made, quoted from that gentleman, "that the Mercurial Vapour Bath is an uncertain remedy, that salivation is sometimes rapidly and severely induced by it." How the bath, to be followed by such results, has been used, I cannot of course pretend to say; but, as the original projector of the method of treatment by moist mercurial vapour, I am bound to state, as the result of my experience, that not only is it not uncertain in its effects, but much more certain than therapeutic agents generally are. I have used it for twenty years and in thousands of cases, and in one instance only have I seen salivation follow its employ. The more I use it, the more confidence I have in the remedy. I am, etc.,

LANGSTON PARKER.

20, Colmore Road, Birmingham, December 1868.

SELF-SUPPORTING DISPENSARIES.

SIR,—I think it is to be regretted that Dr. Rumsey, in advocating a scheme for self-supporting dispensaries, should ignore the successful efforts which are made to benefit the poor, by provident dispensaries at present in existence. He questions the right of these institutions to assume the title "Provident;" but I contend that, though they are assisted by honorary subscriptions, they are provident in so far as they encourage forethought among the members. Unassisted mutual assurance is excellent in principle, but at present would, I fear, have only limited application, owing to the poverty and deficient education of many of the working classes; and the first effect of making it general would be to exclude the class immediately above the poorest, which is especially benefited by the mixed system. In a former letter (BRITISH MEDICAL JOURNAL, September 26th, 1868), I mentioned the payments in the Haverstock Hill and Maldon Road Provident Dispensary; and they are a fair sample of what is required in all similar institutions. Although the sums are small, they are contributed in many cases with difficulty; and, if they were increased, many of the members would be compelled to leave the dispensary, and would often revert to their former custom, of consulting the chemist at the counter, using quack medicines, of neglecting to apply for advice altogether until it is too late for themselves, and, in the case of contagious diseases, for the community in which they live. I am, etc., J. FORD ANDERSON, M.D.

Belsize Park, N.W., December 1868.

OBITUARY.

BENJAMIN GRATTAN GRATTAN-GUINNESS.

WE deeply regret that we have to record the death of Dr. Grattan-Guinness, Registrar of the King and Queen's College of Physicians in Ireland, which occurred at his residence, 24, Lower Fitzwilliam Street, Dublin, on the 8th instant, at a comparatively early age, and after a severe illness of nearly a fortnight's duration. Dr. Grattan-Guinness was one of the sons of the late Reverend A. Guinness, who was the eldest brother of the late Baronet, Sir Benjamin Lee Guinness, M.P. He entered Trinity College, Dublin; and, in due course graduated B.A., in 1852. In 1854 he became a Licentiate of the Royal College of Surgeons in Ireland; in 1859, he became a Licentiate, and Licentiate in Midwifery; and, in 1861, was chosen a Fellow of the King and Queen's College of Physicians, in which body he filled various offices of trust, having several times been elected Examiner in Midwifery, and having succeeded to the Registrarship of that body so lately as St. Luke's day last. For several years he filled the office of Honorary Secretary to the Medical Society of that College; and recently relinquished that post to the general regret of all the members. During the Crimean war he served as Assistant-Surgeon, and subsequently as Surgeon of the County of Dublin Militia; and continued to hold that commission to his decease. In practice he was specially connected with the obstetrical department of the profession, having served three years as Assistant Master at the Rotunda Hospital. Dr. Grattan Guinness's conduct as a medical man, and as a gentleman, was invariably marked by courtesy and honour, and his death is lamented by a large number of the profession in Dublin, as well as by the Fellows of his own College, who highly esteemed his personal character. He was never married.

NATHANIEL TROUGHTON, M.R.C.S.

DEATH has again visited our profession in Coventry. Quite recently we lost Dr. Phillips; now we have to deplore the loss of his old master, who, for half a century, held a most distinguished position as practitioner in this city, and whose clear intelligence and sound judgment were displayed to within a very few weeks of his decease.

Although Mr. Troughton reached the ripe age of seventy-four he was never regarded as an old man; his figure tall and commanding, his step, his tone, his tastes—all savoured of the young and active. Notwithstanding the toil of an extensive town and country practice, Mr. Troughtom found time to keep well up in the medical and general literature of the day; he was, moreover, a gifted artist and a clever naturalist; his portfolios bearing ample testimony to the first named accomplishment, his complete collection of British birds to his zeal for the latter. As the family medical man, Mr. Troughton so completely possessed the confidenee of his patients that they seldom, if ever, could be persuaded to appeal from his decision. As a consultant he was decided yet not positive—ever ready to give due weight to the judgment of another, never anxious to parade the superiority of his own. Indeed, his general bearing was governed by that golden rule which we all well know but which so few follow.

For many years Mr. Troughton was surgeon to the Coventry and Warwickshire Hospital; and, on his retirement some few years ago, was named Consulting-Surgeon. He died on the 29th ult., and was interred on the 5th inst. "He shall know his place no more"; but as the polished gentleman, the courteous host, the accomplished and successful practitioner, he must ever live in the memory of all who knew him.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF EDINBURGH.

BAXTER SCHOLARSHIPS IN PHYSICAL AND NATURAL SCIENCES.—The Senatus has awarded the Baxter Physical Science Scholarship, of the annual value of £60, tenable for two years, to David Gow Black, M.A. and B.Sc., Edinburgh; and the Baxter Natural Science Scholarship, of the annual value of £60, tenable for two years, to Thomas Lauder Brunton, M.D. and B.Sc., Edinburgh, and gold medallist 1866. The scholarships are held under the condition that the holders shall take the Degree of Doctor of Science in the second year of their tenure of them.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Dec. 2nd to Dec. 8th (both inclusive).

Taken at Kew, by Dr. TREUTLER, F.L.S., Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.612
Highest reading of do. (corrected and reduced), on 7th, 10 A.M.	29.926
Lowest ditto Ditto on 6th, 10 P.M.	29.337
Range of pressure during the week	00.589
Mean temperature of the air in the shade	51.7
Mean temperature of evaporation	50.0
Mean temperature of dew-point	48.3
Mean degree of humidity (saturation=100)	88.0
Mean maximum temperature of the week	56.5
Mean minimum temperature of the week	45.9
Calculated mean temperature of the week	51.2
Maximum temperature of air in shade, on 6th	57.7
Minimum temperature (protected), on 2nd	42.2
Minimum temperature (exposed on grass), on 4th	35.8

Range of temperature during week 29.1
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 4th 75.6
Lowest ditto ditto on 3rd 57.6
Mean amount of clouds (0—10) 8.3
Total rainfall (which fell on 3rd, 4th, 5th, 6th, 7th, and 8th) 1.16 inch
Mean amount of ozone (0—10) 4.3

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	0	0	0	0	1	5	0	0	1	3.4
2 P.M.	0	0	0	0	0	4	2	0	1	3.4
10 P.M.	0	0	0	0	1	3	0	1	2	4.0

Mean force of wind (0—12) 3.6

The weather of the week has been generally unsettled and variable. There have been continued and considerable fluctuation in atmospheric pressure, which attained its greatest range (.589 inch) in the short space of twelve hours. Temperature has increased on an average by 10° over that of the previous week. The wind was moderate during the early part of the week, but increased gradually towards its end until the 6th, when it blew a strong gale from the south-west. It attained its maximum force (=11) between 1.30 and 2 A.M. on the 7th, the wind having shifted suddenly to the north-west, with the barometer rising rapidly. By 10 A.M., however, it had backed again to the west-south-west, with a force =3. The sky has during the week been mostly covered with clouds, and the rainfall has been considerable. The general health is good.

Kew, December 9th, 1868.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having undergone the necessary examinations for the Fellowship, were reported to have acquitted themselves to the satisfaction of the Court of Examiners; and, at a meeting of the Council on the 10th instant, were admitted Fellows of the College.

Arnott, Henry, St. Stephen's Crescent, W.; diploma of membership dated July 29, 1864 (University College)
Best, Alexander Vans, M.D.Aber., Her Majesty's Indian Army; April 11, 1856 (Aberdeen School)
Brookhouse, Joseph Orpe, M.D.St. And., Nottingham; Feb. 27, 1857 (Guy's)
Coleman, A., L.R.C.P.Lond., Old Burlington Street; April 21, 1860 (St. Bar.)
Davy, Richard, M.D.Edin., Welbeck Street; May 7, 1860 (Guy's)
Eastes, George, M.B. & L.R.C.P.Lond., Southwark; Jan. 26, 1864 (Guy's)
Edis, F. P., M.B.Lond., Langham Chambers; Nov. 15, 1864 (Westminster)
Galton, Edmund Hooper, L.S.A., Brixton Hill; July 17, 1857 (Guy's)
Harding, T. M., L.R.C.P.Lond., Euston Road; July 31, 1848 (Middlesex)
Humphreys, Frederick W., L.R.C.P.Lond., Tower Hill; April 28, 1865 (Guy's)
Ingle, Robert Nicholas, M.D.St. And., Pendleton; Dec. 23, 1858 (Guy's)
Lee, Frederick Fawson, M.B.Lond., Salisbury; April 13, 1860 (St. George's)
Pearse, G. E. L., L.S.A., St. George's Road, S.W.; Nov. 13, 1864 (Westminster)
Thornton, W. H., M.D.Lond., Dewsbury; July 2, 1849 (Manchester School)
Wood, Miles Astman, L.R.C.P.Lond., Ledbury; Jan. 25, 1865 (King's College)

It is stated that out of the sixteen candidates, only one failed to acquit himself to the satisfaction of the Court of Examiners, and was consequently referred to his studies for twelve months.

The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board, on the 9th instant.

Adams, Edward John, L.S.A., Bethnal Green; diploma of membership dated April 22nd, 1866 (St. Thomas's)
Ainley, Daniel, Halifax; July 23, 1868 (St. Bartholomew's)
Chiappini, Antonio Lorenzo, M.D.Edin., Cape of Good Hope; Jan. 23, 1866 (King's College)
Godson, Clement, Barnet; April 21, 1868 (St. Bartholomew's)
Price, Wm., Cardiff; July 21, 1868 (University College)
Winckworth, C. F., L.S.A., Horsham, Sussex; April 23, 1867 (Westminster)

It is stated that three candidates failed to acquit themselves to the satisfaction of the Board, and were consequently referred to their studies for three months.

UNIVERSITY OF CAMBRIDGE.—First Examination for M.B. Degree. Examined and approved.

Johnson, —, Jesus
Macan, B.A., Jesus
Penny, B.A., Queen's
Williams, B.A., Trinity

Final M.B. Examination.

Davies-Colley, M.A., Trinity
Gedge, Caius
Ward, B.A., Caius

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 3rd, 1868.

Brown, Richard Edwin, High Holborn
Foster, Joseph, Sonning, Berkshire
Hubert, William Henry, Markyate Street, Hertfordshire
Nicolson, P. J. S Fraser, Cheltenham
Pollard, Frederick, Taunton

At the same Court, the following passed the first examination.

Fitt, S. W., King's College
Kidger, A. A., King's College
Naughtin, W., Charing Cross Hosp.
Pritchard, R. H., Guy's Hospital
Sheard, W., King's College
Turner, F. H., St. Bartholomew's Hospital
Wallis, F. M., Guy's Hospital

MEDICAL VACANCIES.

THE following vacancies are declared:—

AUCKLAND UNION, Durham—Medical Officer for the Whitworth (a new) District.
BATH EYE AND EAR INFIRMARY—Surgeon.
BATTLE UNION—Medical Officer for District No. 1 and the Workhouse; Medical Officer for District No. 2.
BELPER UNION, Derbyshire—Medical Officer for the Markeaton District.
BIRKENHEAD BOROUGH HOSPITAL—House-Surgeon.
BIRMINGHAM—Public Vaccinator for the Parish of.
CANCER HOSPITAL, Brompton—Secretary.
CITY OF LONDON—Examiner of Gas.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park—Physician.
DOWLAIS IRON-WORKS, Merthyr Tydvil—Assistant-Surgeon.
DROGHEDA UNION, co. Louth—Medical Officer for the Stamullen Dispensary District.
FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, Holborn—Surgeon.
GLASGOW EYE INFIRMARY—Surgeon.
GLASGOW ROYAL INFIRMARY—Physician to the Dispensary Department.
GLOUCESTER GENERAL INFIRMARY—Assistant-Surgeon.
GRANARD UNION, co. Longford—Medical Officer for the Workhouse.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Physician.
HOSPITAL FOR WOMEN, Soho Square—Assistant-Physician.
KENNOWAY, Fifeshire—Parochial Medical Officer.
LOUTH UNION, Lincolnshire—Medical Officer for the Yarborough District.
MANCHESTER, NEW BRIDGE STREET WORKHOUSE—Assistant Resident Medical Officer.
MARTLEY UNION, Worcestershire—Medical Officer for Astley or No. 1 District.
NEWTON ABBOT UNION, Devonshire—Medical Officer for District No. 1.
OPHTHALMIC HOSPITAL, St. George's Circus—Surgeon.
PHILIPSTOWN AND GEASHILL, King's County—Medical Officer to the Constabulary.
PRESTON UNION, Lancashire—Medical Officer for Penwortham Workhouse and District No. 5.
ROYAL BERKSHIRE HOSPITAL, Reading—Physician.
ROYAL INSTITUTION OF GREAT BRITAIN—Fullerian Professor of Physiology.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ROYAL SOUTH HANTS INFIRMARY, Southampton—Dispenser.
ST. BARTHOLOMEW'S HOSPITAL—Physician and Lecturer on Forensic Medicine.
ST. CATHERINE'S HOSPITAL, Bath—Surgeon.
ST. MARGARET AND ST. JOHN, WESTMINSTER—Dispenser.
ST. PANCRAS—Medical Officer of Health and Examiner of Gas.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician.
STEEVENS'S HOSPITAL, Dublin—Physician-Accoucheur and Lecturer on Midwifery in the Medical College.
STOURBRIDGE DISPENSARY—Surgeon.
SUNDERLAND GENERAL INFIRMARY and DISPENSARY—Physician.
THRAPSTON UNION, Northamptonshire—Medical Officer for District A, and the Workhouse.
TIVERTON UNION, Devon—Medical Officer for the Thorverton District.
TRINITY COLLEGE, Dublin—Professor of Botany.
TULLAMORE UNION, King's County—Medical Officer for the Philipstown Dispensary District and the Geashill Branch.
UNIVERSITY COLLEGE HOSPITAL—Physician to the Skin Infirmary.
WARRINGTON DISPENSARY, Lancashire—Resident Surgeon-Apothecary.
WEST DERBY UNION, Lancashire—Medical Officer for the Walton-on-the-Hill District.
WEST RIDING OF YORKSHIRE LUNATIC ASYLUM—Clinical Clerk.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*BARTER, C. S., M.B.Lond., appointed Surgeon to St. Catherine's Hospital, Bath, *vice* T. Barrett, M.D., deceased.
DOWSE, Thomas S., M.D., appointed Registrar to Charing Cross Hospital.
MEDWIN, A. G., M.D., appointed Assistant Dental Surgeon to the Dental Hospital of London.
SIMS, F. Manley, Esq., appointed Surgeon to St. George's Dispensary, and Assistant-Surgeon to the Hospital for Diseases of the Skin
*SOPER, William, Esq., appointed Medical Officer to the Stockwell Orphanage.
WATSON, Wasdale, Esq., appointed Surgeon to the Odd Fellows' Medical Association, Newport, Monmouthshire.

BIRTHS.

FRAIN.—On November 25th, at Frederick Street, South Shields, the wife of *Joseph Frain, M.D., of a daughter.

IRELAND.—On November 25th, at Linton, Cambridgeshire, the wife of *E. Ireland, Esq., Surgeon, prematurely, of a son, stillborn.

SLYMAN.—On November 28th, at 26, Caversham Road, the wife of *William D. Slyman, Esq., Surgeon, of a son.

DEATHS.

*BAYLIFFE, Charles S., Esq., Surgeon, at Chippenham, aged 35, on Nov. 19th.

*LEETE, John Griffith, Esq., Surgeon, of Thrapstone, Northamptonshire, aged 62 on December 2nd.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.
WEDNESDAY..	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. C. F. Maunder will exhibit patients who have undergone primary excision of the Elbow-joint; Dr. Richardson, "Further Experiments on the Effect of Exposing Animal Structures to Intense Heat"; Dr. Balthazar Foster (Birmingham), "Remarks on Etherial Cod-liver Oil"; Dr. Thudichum, "On the Spectroscope in relation to Physiological and Pathological Research."

TUESDAY.—Pathological Society of London, 8 P.M.—Anthropological Society of London —Statistical Society.

WEDNESDAY.—Geological Society.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. Broadbent, "On the Pathology of Chorea and Hemi-Chorea."—Royal Society.—Zoological Society.—Linnæan Society.—Chemical Socicty.

SATURDAY.—Association Medical Officers of Health.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the JOURNAL, *to be addressed to the* EDITOR 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

AUTHORS OF PAPERS, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

CASES for Binding the Volumes of the JOURNAL may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

PRESSURE on our space compels us to omit a further obituary notice of Dr. Cowan, papers by Dr. Russell Reynolds, Dr. Robert Barnes, Mr. Cadge (Norwich), Dr. J. K. Spender (Bath), and several other contributions.

NEW MEMBERS.

DR. H. BARNES (Carlisle), Dr. Gillespie (Edinburgh), Dr. Black (Glasgow), Mr. Heckford (London), Mr. Field (London), Dr. John Murray (London), Mr. Birkett (London), Dr. Wiltshire (London), and Dr. G. C. Coles (London), are thanked for their communications. Forms of application for membership have been sent where desired.

ERRATUM.—In Dr. Wolfe's letter in the JOURNAL of November 21st, page 556, col. ii, line 29, for "David's three cases", read "Daviel's three cases"; and in the first foot-note, for "Daniel O'Beirne", read "Daviel, O'Beirne".

EXCISION OF THE WRIST AT NETLEY.

SIR,—As I do not wish to have the credit of labours not my own, may I ask you to have the kindness to correct an error in your report of the Royal Medical and Chirurgical Society of last week? I said that Dr. Mackinnon, the Assistant Professor of Military Surgery at Netley, had lately excised a wrist on Lister's method with very excellent results. I am, etc., JEFFERY A. MARSTON.

ST. GEORGE'S.—Mr. Chas. Hawkins has been the efficient Treasurer of St. George's Hospital since January 1865. He succeeded Earl Cadogan. Dr. Benjamin Hoadley, son of the celebrated Bishop of Winchester, was Physician to the Hospital from 1735 to 1751, with one John Baillie, of whom we can find no other account.

MONS. P. LA T.—The Committee of the French Hospital will celebrate its anniversary meeting during the present month; and a pleasing novelty to Englishmen will be a thoroughly French dinner, by Verrey of Regent Street. We believe that Mr. Rimmel of the Strand is the Treasurer, from whom you may obtain the desired information.

X (Ireland) asks: "Sir,—Would a medical man, if called on to visit a patient who has been assaulted, and who is suffering from a scalp-wound an inch in length, extending to bone, a compound depressed fracture of the nasal bones, with symptoms (though not very severe) of concussion, be justified in giving a certificate for magistrates that there was no danger to life?"

*** There must be the possibility of erysipelatous inflammation, if not of other complications, which may threaten life, until the wound is healed and the symptoms of concussion have passed away. But still there may be no symptoms to indicate that life is at all threatened, and, in a large majority of such cases, it is not.

TO OUR CORRESPONDENTS.

WE must ask various correspondents, who complain of the non-insertion of their papers, to view the postponement of their papers with indulgence. It is our wish—as it would obviously be to our convenience—to insert without delay all papers forwarded to us. As it is, we are compelled to make such a weekly selection as the best interests of the JOURNAL of the Association seem to demand—a task which is one of great difficulty, and to which we give the most careful consideration. We beg of our contributors to cultivate brevity in their communications intended for publication. We keep always in view the desirability of representing to the very fullest extent provincial and British medicine, without any special regard to metropolitan contributors. This the past volumes will abundantly prove. The largely increasing circulation of the JOURNAL, and the constantly growing number and importance of our contributors testify, we believe, to the success with which we have hitherto fulfilled a task of great delicacy; and we must claim the indulgence of individual contributors. We must also take the opportunity of regretting our inability to conduct a personal written correspondence with contributors, except under special circumstances; and to assure all our correspondents that, while it is a great satisfaction and assistance to the Editor of this JOURNAL to receive the mass of private and public correspondence which is now addressed to him on the business of the JOURNAL, it is not possible to do more than carefully note and act upon its general tenour, without replying to each in a distinct letter.

AN ASSOCIATE forwards us an advertisement, cut from the *Norfolk Chronicle and Norwich Gazette*, in which "Edward M. Smith, M.D.," announces successful cures for scrofula, cancers, etc. It is for the practitioners, or others aggrieved, to ascertain what claim Edward Smith has to his medical title, and how far he brings himself under the operation of the Medical Act, Clause 40, as in the recent cases successfully prosecuted, of which we have published notices.

A CORRESPONDENT forwards to us a signed letter of the Hospital for Diseases Peculiar to Women and Children. We think the form objectionable: 1, in that it announces at full length the private addresses of Dr. Gorrequer Griffith and Dr. Parkinson Oates, who appear to be the present medical officers; and 2, in that it intimates that patients may purchase a letter for five shillings, which will entitle the holder to medicine and attendance for one month. This clearly opens the way to serious abuse in a charitable institution supported by voluntary subscriptions.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Wiltshire County Mirror, Dec. 9th; The Aberdeen Free Press, Dec. 4th; The Aberdeen Herald, Dec. 5th; The California Medical Gazette for October; The New York Medical Gazette, Nov. 21st; The Indian Medical Gazette, Nov. 2nd.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. J. Vose Solomon, Birmingham; Dr. Latham, Cambridge; Dr. B. W. Foster, Birmingham; Dr. Ogle, Derby; Mr. Heaton, Leeds; Dr. Kilgour, Aberdeen; Dr. J. Harley, London; Dr. Renshaw, Manchester; Dr. Aveling, Rochester; Mr. W. Reeves, Carlisle; Mr. Dudley, Northampton; Messrs. Fannin, Dublin; Sir Henry Thompson, London; Mr. Horatio Stokes, Gibraltar; Dr. Eastwood, Sheffield; Messrs. Calvert, Bradford; Mr. West, Birmingham; Dr. J. G. Swayne, Clifton; Dr. J. Addington Symonds, Clifton; Mr. T. P. Teale, Leeds; Mr. J. de Zouche, Liverpool; Mr. Spence, Edinburgh; Dr. Paul, London; Mr. J. Sampson Gamgee, Birmingham; Dr. Panton, London; Dr. D. Little, Manchester; Dr. Strange, Worcester; Dr. Spender, Bath; Mr. Ikin, Leeds; Messrs. Southall, Son, and Dymond, Birmingham; Mr. Furneaux Jordan, Birmingham; Mr. Langston Parker, Birmingham; Mr. T. Nunnelcy, Leeds; Dr. Roberts, Manchester; Dr. Martyn, Clifton; Mr. Garrad, Bures, Colchester; Mr. T. Longmore, Woolston; Mr. T. Paget, Leicester; Mr. J. Dixon, London; Mr. Husband, York; Mr. Annandale, Edinburgh; Dr. Hayden, Dublin; Dr. Shapter, Exeter; Dr. Goodwin, Bury St. Edmunds; Dr. Philipson, Newcastle-upon-Tyne; A Well-wisher, Stanley; Mr. Skey, London; Mr. Southam, Manchester; Dr. O'Reilly, Kingscourt: Dr. H. Simpson, Manchester; Dr. Sankey, Cheltenham; Mr. G. Rigden, Canterbury; Dr. Birkbeck Nevins, Liverpool; Dr. Elliot, Hull.

LETTERS, ETC. (with enclosures) from:—

Dr. R. Barnes, London; Dr. D. Dyce Brown, Aberdeen; Dr. J. Russell Reynolds, London; Dr. James Russell, Birmingham; Dr. Durrant, Ipswich; Dr. Boyes, Boroughbridge; Dr. Dowse, London; H. S., London; Mr. Soper, London; The Honorary Secretary of the Microscopical Society; Mr. Tozier, Dublin; Dr. Anderson, London; Mr. T. Watkin Williams, Birmingham; Dr. Tuckwell, Oxford; Mr. Branthwaite, Lincoln; Dr. Eastlake, London; Mr. H. B. Bayliffe, Chippenham; Mr. E. J. Evans, Northampton; Dr. Smith, Aberdeen; The Secretary of the Society of Arts; Mr. Heckford, London; Dr. Hughlings Jackson, London; Dr. Gibson, London; Dr. Sawyer, Birmingham; Dr. Bancroft, Brisbane, Queensland; Mr. J. Clarence Hyde, Durban, Natal; Dr. Bullar, Southampton; Mr. J. Manley, West Bromwich; Dr. Treutler, Kew; Dr. John Murray, London; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; The Registrar-General of England; Mr. T. M. Stone, London; Mr. R. H. McKeand, Manchester; Dr. Dudfield, London; A Birmingham Correspondent; Dr. McVeagh, Coventry; Dr. Wm. Stokes, Dublin; The Registrar of the Medical Society of London; Dr. Mapother, Dublin; Mr. Holmes Coote, London; Dr. D. Dyce Brown, Aberdeen; Dr. Lanchester, Croydon; The Honorary Secretary of the Harveian Society; Dr. Reith, Aberdeen; Mr. F. C. Skey, London; Dr. Meadows, London; and Dr. C. Gage Brown, London.

PRIZE MEDAL OF THE BRITISH MEDICAL ASSOCIATION.

The HASTINGS GOLD MEDAL, value Twenty Guineas, is offered annually by the BRITISH MEDICAL ASSOCIATION as a Prize for an Essay on some subject connected with Medical Science.

The subject selected for competition for 1870 is "ON SOME SUBJECT OR AGENT IN THERAPEUTICS"; and the award will be made at the Annual Meeting of the Association in that year.

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REMARKS
ON
THE DIAGNOSIS OF EARLY PREGNANCY.*

By ROBERT BARNES, M.D.Lond.,

Fellow and late Examiner in Midwifery, Royal College of Physicians; Obstetric Physician and Lecturer on Midwifery, St. Thomas's Hospital; Consulting Physician to the East London Children's Hospital; Examiner in Midwifery, Royal College of Surgeons.

THE diagnosis of early pregnancy is confessedly difficult. Within the first three months the prudent physician will often call in Time to his aid, and will postpone the positive "Yes" or "No." Of course, he disregards all the subjective signs. It is not safe to trust to any evidence but the objective signs—those physical conditions that are revealed to him on examination of the patient. At the epoch under discussion, the evidence is of a cumulative character. We cannot rely with entire confidence upon any one sign. It is a case where the old law maxim, "*Multa collecta probant, quæ singulatim non probant,*" is especially applicable. The little further evidence to which I now beg leave to draw attention is simply an addition to the heap. I claim for it no absolute value; but that in conjunction with other signs it helps to complete and to strengthen that body of evidence from which a decision, more or less positive, may be drawn.

In seeking for evidence of pregnancy we seek, of course, to discover those physical alterations in the generative organs which pregnancy induces. Putting aside, as beyond the scope of my present purpose, the changes wrought in the breasts, I wish to fix attention principally upon the changes that take place in the uterus and vagina. As regards the uterus, there are changes in form, size, weight, mobility, position, texture, secretion, and relation. As regards the vagina, there are changes of form, texture, colour, secretion, and relation. The changes observed in the vagina are mainly the consequence of changes in the uterus. It is therefore desirable to study the uterine changes first. The changes in form, size, and weight are so interpendent that they are best taken together. The change of form consists chiefly in a greater proportional enlargement of the body than of the cervix or vaginal portion of the uterus. The increase of size and weight, of course, are also more marked in the body. But so far, and taken by themselves, these signs may be due to engorgement or hypertrophy of the uterus, possibly to the presence of a tumour in the wall of the uterus, or to the presence of a polypus in its cavity. Under the hypothesis, we are precluded from using the uterine sound, and must rely upon such means as are not likely to disturb pregnancy. We must trust to manual exploration, and sight, for I assume that characteristic auscultatory signs are not yet developed. The touch will recognise—

1. A change of texture in the os uteri and vaginal portion. It is soft, cushiony, a little patulous perhaps, and lubricated with mucus.

2. A change of position: the os is found considerably higher up and farther back under the promontory than in the unimpregnated state; and the os, instead of looking downwards in the axis of the pelvic cavity, looks backwards, perhaps a little upwards.

3. A change of position in the body of the uterus: this depends upon the same cause as the change of position of the os. The normal position of the uterus is one of slight anteversion when the body is in the erect posture. The uterus, swinging, as it were, on the broad ligaments, is ready to revolve to a certain extent on its transverse axis. If the finger be applied to the os, drawing down the vaginal portion, the fundus rises in the opposite direction. The whole uterus is a lever of the first order; the fundus and vaginal portion form the two arms, either of which may be moved by an external power. The two arms are of an unequal length; the upper one formed by the body of the uterus is not only the longer but the heavier, and the freer from restraint. When, therefore, the body—the part which is exclusively the seat of gestation—is enlarged, the increase of size, length, and weight adds in a geometrical ratio to the power of the longer arm of the lever. It naturally falls forwards and downwards; the axis of the uterus no longer approximates to that of the pelvis, but becomes oblique in reference to the axis of the pelvic brim; nearly horizontal when the subject is erect. This anteversion is further liable to increase by the fundus being weighted with the superincumbent intestines. Every inspiration, every movement that fixes the chest, tends to exert a leverage action upon the uterus, the power of which increases in an accelerated ratio with the growth of the uterus. This leverage in anteversion, or *mouvement de bascule*, as the French call it, produces the sign to which I wish to invite special attention.

4. The elevation and retrogression of the vaginal portion is impeded by the intimate union existing between the anterior wall of the cervix uteri and the base of the bladder. The neck of the uterus can only rise backwards by dragging the neck of the bladder along with it. This produces peculiar conditions very perceptible to the touch. The resistance opposed by the mass of cellular tissue that binds the uterus to the bladder is partly overcome by stretching. The cellular tissue is remarkably extensile; and the extensibility of the vaginal wall is well known. The mass of inter-cervico-vesical tissue plays an important part in pregnancy and labour. During pregnancy, it undergoes the stretching referred to. During labour it is still further stretched; it is by virtue of this free extensility that the lower part of the uterus glides down into the pelvis before the advancing head, the bladder and anterior wall of the vagina remaining more fixed. In this way, small vessels are commonly torn, and hæmatocele or small extravasations of blood take place in the loose tissue. These extravasations are very common; but a condition I have never found wanting in every case in which I have had the opportunity of examining the body a few days after labour, is a large effusion of serum. This, of course, is readily absorbed, and the stretched cellular tissue recovers its normal compactness. Thus the space between the uterus and bladder is elongated. This stretching and elongation is attended by a stretching and smoothing out of the anterior and upper wall of the vagina. This change in the vagina is very remarkable. Instead of the deep groove or *cul-de-sac*, commonly found in the non-pregnant state in front of the os uteri, the os being lifted up, and brought nearly into a straight line with the anterior wall of the vagina, we find the anterior aspect of the cervix from the edge of the os, forming a continuous plane with the upper part of the anterior wall of the vagina.

The features of this plane vary with the epoch of pregnancy. During the first month, whilst the anteversion or mutation of the body of the uterus is yet moderate, the vaginal *cul-de-sac* is not quite obliterated; the length of the plane, measured from os uteri to the lower edge of the symphysis pubis, is about two inches; the natural corrugations of the vagina are not lost; and there is an elastic sensation in the course of this plane through which it is not always easy to feel the body of the uterus, which rests upon it. But, at the end of two months, the features are less ambiguous. The os has been tilted higher up; the body of the uterus is larger, and its nutation is more marked. The connecting tissue between uterus and bladder is more stretched; the vaginal mucous membrane, also stretched in a corresponding degree, is smoother and more tense to the feel; and the uterine body reclining upon it is felt firm and rounded through it, an elastic cushion intervening. If the abdominal walls be not too thick and resisting, the fundus of the uterus can be felt by the hand pressed in above the symphysis, so that the size, shape, and position of the uterus, can be measured between the two hands.

I believe there is no condition excepting pregnancy that brings out so distinctly the features I have attempted to describe. The tense smooth plane, extending from the os uteri forwards to the symphysis pubis, is characteristic of pregnancy. This sign alone has many times indicated to me the existence of pregnancy; and, on seeking for corroborative testimony, I have seldom failed to find it.

The most valuable sign of all, perhaps, is the violet coloration of the vaginal-portion and the vagina, described by Jacquemier. If this is minutely investigated, it will be found that the appearance due to pregnancy differs from the occasional resemblances that depend upon other causes. In pregnancy, the general and intense hyperæmia is dependent upon an augmented supply of blood attracted by the developmental stimulus. Owing to the absence of valves, and the free anastomosis of the vessels, the entire vascular system of the pelvis shares in this hyperæmia. The capillaries and smaller veins become enlarged; the veins increase in tortuosity and prominence; they become in some instances varicose; the mucous surface is irregular in consequence, sometimes resembling the cerebral convolutions; but a more characteristic feature is, the appearance of small veins in the labia minora et majora, of a purple colour, merging in the vagina into the general purple colour of the mucous membrane. This appearance of the veins of the vulva is strictly analogous and similar to that of the veins in the breasts. I can verify the observation of Dr. McClintock, that the violet colour of the vagina disappears if the child dies.

If the speculum be used, it will commonly be found that a creamy secretion gathers in the fundus of the vagina. The features which I have described, *taken together*—namely, the feel of the os uteri, its position, the smooth stretched plane of the vagina extending backwards, the rounded firm mass felt through the elastic plane, and the vascular appearance of the vagina and vulva—*raise the presumption of pregnancy almost to certainty.*

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* Read in the Midwifery Section before the Annual Meeting of the British Medical Association in Oxford, August 1868.

Still, there are other conditions that may deceive. A case that presented in a high degree a combination of the signs described was the following. A lady had had two children. After the last, which was born in July 1867, the abdomen did not diminish in size to the extent expected. After six months, she began slowly to increase. She was brought to me with the object of ascertaining whether the increase was due to pregnancy or to an abnormal growth. I found abdominal enlargement that would correspond to three or four months of gestation; no fluctuation or distinct tumour. The os was tilted up and backwards, not characteristically soft; the anterior roof of the vagina was on the stretch; the uterus was a little enlarged and anteverted; the mucous membrane exhibited a sub-violet colour, with creamy mucus. There was hardness and resistance in the right iliac fossa. I reserved my opinion as to pregnancy, leaving this in doubt; but stated the probability of a tumour. About five weeks later, it was considered that she was in labour; but collapse increased, with severe abdominal pain, and she died in a few days. On dissection, the uterus was found not to have been pregnant; there was some enlargement, with anteversion. The anteversion was caused by the pressure of an ovarian tumour upon the body of the uterus. The colour of the vagina was due to congestion from pressure. The cause of death was remarkable. The tumour, which had increased rapidly in size during the last month, had become twisted on its axis, so that the pedicle resembled an umbilical cord. The strangulation of the vessels so induced had led to rupture of vessels in the cysts of the tumour.*

The converse of the backward stretching of the vagina happens in the case of retroversion of the gravid womb. In this case, the cervix uteri is jammed behind and above the symphysis pubis; the lower and posterior wall of the vagina is bulged forward by the fundus uteri.

CASE OF THROMBOSIS OF THE HEART, ETC., AND OF THE RIGHT FEMORAL VEIN; WITH FATTY DISEASE OF THE KIDNEYS.

By D. DYCE BROWN, M.A., M.D.,

One of the Medical Officers of the Aberdeen General Dispensary, and late Assistant Professor of Materia Medica in the University of Aberdeen.

ELIZABETH M., aged 10 months exactly, had been delicate from her birth. She was attacked twelve days before death with scarlet fever, in which she was going on well, till the sixth day before death, when she was suddenly seized with very rapid and short breathing. The pulse became small and quick; the skin was hot, with general feverishness and thirst. The bowels were regular; the urine free; the tongue and the inside of the mouth and gums were ulcerated. She could hardly be made to take the breast, which the mother attributed to her sore mouth. On examination by the stethoscope, nothing but harsh breathing could be detected. There was no dulness on percussion. Three days later, the right thigh and leg were found to be swollen, but not œdematous, and discoloured of a purplish hue. There was seemingly no pain in the limb, the temperature of which was not lower than that of the left limb. The pulsation in the right femoral artery was much fainter than that on the left side. Next day, there were also, with the harsh breathing, slight bronchial *râles*, but no dulness. Two days later she died, the symptoms before death being very hurried, short breathing, pulse hardly perceptible, face anxious and pale, discoloration in the right limb more pronounced. From the first access of these symptoms till the last, she had hardly any cough.

Dr. Alexander Ogston kindly conducted the *post mortem* examination, thirty-six hours after death, of which the following is his report.

On the outside of the body there was nothing very remarkable beyond a purplish blue discoloration of the skin over the right groin and haunch, and upper part of the right thigh, which discoloration was the more conspicuous as the rest of the surface was of a waxy paleness. The uniform purplish discoloration of the right thigh and leg, as well as the swelling observed during life, had almost entirely disappeared. There were the usual cadaveric lividities of the back parts; the joints were flaccid; the pupils small. On opening the chest the pleuræ were healthy, and the pericardium distended with a fluid ounce of clear serum. The whole of the contents of the chest were removed in a mass, and examined after being separated from the body. On opening the right auricle, it was full of clot, half of which was the usual red blood-clot, and half yellow and fibrinous. This fibrinous clot, which was densest and yellowest in the auricular appendix, became deeper and deeper in colour, until it passed into the red clot; but did not extend into either of the venæ cavæ. The right ventricle was empty; but the pulmonary artery, from the valves onwards, was full of fibrinous clot; which, on being pulled out, formed a cast of the trunk and branches of the artery to its finest ramifications. The left ventricle was empty; the left auricle was full of fibrinous clot, densest and yellowest in the auricular appendix; and extending into the smallest ramifications of the pulmonary veins. The aorta was full of a similar yellow clot, exhibiting, when pulled out, a cast of the arch and descending thoracic aorta, and of the main arteries of the head and arms for a short distance. The substance and valves of the heart were quite healthy. The thymus gland was diminished to about one-half of its original size. The lungs were bulky. The upper lobe of the right lung was healthy; the middle lobe of the right lung having an almost emphysematous feel. The back part and lower lobe of the right lung were solidified and hepatised; and gave out, on pressure, a very little muco-purulent fluid from the cut bronchi, and serum from the lobes themselves. The hepatised part was not softened. The left lung had the front of its upper lobe a little emphysematous to the feel, but otherwise natural. The back part and lower lobe of the left lung were in the same state as the corresponding parts of the right lung. The stomach, liver, spleen, and intestines, were healthy. The abdominal aorta was empty; the abdominal vena cava contained semi-fluid blood. The left kidney was large, flabby, pale, and extremely fatty throughout, and showing all the appearance of advanced fatty disease, both on section and when stripped of its capsule. The right kidney was intensely fatty; hardly a trace of normal tissue remaining. The bladder contained a small quantity of urine, which, with heat, gave a copious deposit of albumen.

On making an incision down the front of the right thigh, along the course of the main vessels, which laid bare the internal saphenous vein, this vein, to the length of one inch from its origin, felt like a hard incompressible cord, and was found filled with a hard, blackish, friable, dry clot, of the consistence of the lymph usually deposited on the inner walls of an aneurism. Below this, it was filled with semifluid blood; and the walls of the vein bore nowhere any traces of inflammatory action. The femoral vein, from the level of Poupart's ligament to two inches downwards, had the same hard feeling, and was filled with the same hard clot; the clot extending for a quarter of an inch into the profunda branch. This clot in the femoral vein presented a peculiar appearance. Although, on the whole, black, hard, and friable, as above described, it presented, at intervals of about half an inch, places where it was firm, white, and fibrinous; and was thus composed of short white portions alternating with black longer parts. This was evidently owing to the manner of its formation; the white portions, which were evidently the first that had been formed, corresponding to places where the venous valves were present; small projections (from the white portions) themselves even more white and tough, fitting into the sinuses of the valves, and seeming to have been first produced. The appearances led distinctly to the inference, that the thrombus, commencing in the sinuses of the valves, grew thence till the vein at the part was plugged; the intermediate black clot having been formed by the imprisoned blood. Above and below this part described, the vein contained semifluid blood, and presented no trace of any inflammatory action. The femoral artery on this side, as well as the femoral artery and vein on the other side, were natural. There was nothing else unusual. The head was not examined.

REMARKS.—The interest of the case is manifest. The fatty disease of the kidneys was sufficient to account for a condition of blood tending to production of thrombosis; while such disease of the kidneys, and such extensive and well marked thrombosis, in a child ten months old, is sufficiently uncommon to deserve record. The sudden access of hurried and short respiration, with the purplish discoloration of the limb, prove that the thrombi had begun to form some days before death. These two sets of symptoms, along with the absence of stethoscopic signs to account for the state of the respiration, pointed at once to the diagnosis. The hepatisation of portions of the lungs was evidently merely the precursor of death, as, two days before, there was no dulness on percussion on either side. The small quantity of mucopurulent fluid which could be pressed from the cut bronchi, was just what one would have expected to find from the existence, two days before death, of slight *râles*.

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* I have seen another case in which an ovarian tumour was rolled over in a similar manner by the growing pregnant uterus. Death ensued in the same manner by rupture of the vessels of the cyst.

A CASE OF ABSCESS OF THE BRAIN.*

By JOHN K. SPENDER, M.D.Lond.,

Surgeon to the Mineral Water Hospital, and to the Eastern Dispensary, Bath.

The following case possesses some interest and value, on account of the complete history which was obtained. Some points in that history, too, may help to place the diagnosis of cerebral abscess on a surer foundation.

G. T., a well-built muscular man, aged 60, by occupation a carter, and in apparently sound and even vigorous health, fell off a load of thorns in the middle of November 1866, and struck the back of his head. He was severely shaken, but was not made insensible. He did not vomit; and there was no outward injury inflicted on the body, beyond bruises. He stayed at home quietly for four days, and then went to work again; but, for many days after this, he always came home early, and, in a silent moody way, sat shivering all the evening over the fire. He often went to bed as early as seven o'clock, and said that he had a noise in his head like "singing". All through January, he stayed at home entirely, and was always silent and strange. The people around him had to speak two or three times before they could get an answer. This went on through February and nearly the whole of March. On March 28th, he felt so much better, that he went to a wood with two or three other men, in order to fell trees; and, while doing this, he had a "fit"—strictly epileptiform, for he was insensible and convulsed, and was brought home by his companions. Next morning, he was so far revived, that he resumed the work of the previous day, and did so until Monday, April 1st, when he came home about noon, and did not go out again all the week. It was on Wednesday, April 3rd, that he was seen for the first time by the house-surgeon of the Eastern Dispensary, Mr. Exell. On Sunday evening, April 7th, he was remarkably lively and cheerful. The next day, he felled trees again in the old wood, but was again brought home in an epileptic convulsion, and never afterwards went out of his bed-chamber.

From this time till the middle of June, he received parochial relief and medical attendance. He was always in bed; and, at ten o'clock every morning, he was seized with a violent tremor, followed by a pungent heat and a profuse sweating; and, strange to relate, this hectic cycle was almost always most intense on Tuesdays. He now began to complain of an intense screwing pain at the vertex of the right half of the head, which continued for nearly three months with cruel rigour. A letter for the Eastern Dispensary was obtained for him in June, and I visited him rather frequently.

No considerable variation in the symptoms occurred in July; but, in the first week of August, he suffered another, a third and last, epileptic fit. After this, he had no more pain; but he now lost his speech, and could utter nothing beyond groaning inarticulate noises. At about the same time, the power of swallowing also was lost. The pupils were always normal, and responded well to light. The protruded tongue invariably turned to the left side. Paralysis of the left arm and leg gradually came on—the arm and leg which were clonically convulsed during the epileptic attacks; and the ever-spreading palsy soon merged into a coma which deepened into death, on Saturday morning, September 14th.

Post Mortem Examination, Sunday evening, Sept. 15th.—I obtained this examination on condition that the head should be the only cavity opened. There was no scar visible on any part of the scalp. The calvarium was removed without difficulty, and there were no adhesions between it and the dura mater. The membranes had a congested look over all the upper surface of the brain; and the right hemisphere seemed swollen, much in the same way as the brain of a child who has died of acute tubercular meningitis. Slicing the brain carefully down, I came, at about half an inch from the surface, to the roof of a large and irregularly shaped cavity, lined with a soft membrane, and out of which a thin puriform fluid so suddenly poured that I was unable to collect it for measurement. The body of the cavity might have contained a plum of moderate size. A sinus ran half an inch directly forwards; and another and much longer one took a direction downwards and inwards into the lateral ventricle, into which pus of a thicker consistence had filtered. So far as I could make out, the right lateral ventricle formed the lower and inner boundary of the purulent cavity. The cerebral tissue around the abscess was deeply reddened. The entire brain was next removed; and the bones at the base of the brain were carefully inspected; so also were the principal blood-vessels; but nothing wrong could be discovered. During life, the organs of sense had done their duty well; and physical examination of the other cavities of the body gave no indication of disease, though it ought to be added that, during the epileptic convulsions, the heart palpitated in a most violent manner.

The treatment of this case is a confession of the impotency of medicine. Everything reasonable was tried: iodide of potassium in large doses; a short and mild course of mercury; a seton at the back of the neck. Only opium produced transient and imperfect remission of suffering. Good nourishment was supplied, so long as he had the power of swallowing it.

The history of this case embodies the striking fact, that there was no apparently adequate cause for the mischief in the brain. He was much shaken by falling on the head; but he was not wounded. No outward phlegmon had been seen or known during the last few years of life; and, if the man's statement is to be believed, there had been no syphilis for at least thirty years. The health had been unqualifiedly good for a long time, though he occasionally drank rather hard. There was no albumen in the urine when I attended him.

Dr. Gull's monograph on Abscess of the Brain, in the third volume of the third series of *Guy's Hospital Reports*, is of high classical value. Relying on his almost absolute assertion that, "with the exception of suppuration produced by scrofulous deposit, idiopathic abscess of the brain does not occur," I hesitated in offering a perfect diagnosis, and suspected for some time that my patient was an example of chronic cerebral softening. The local pain and the unilateral convulsion and paralysis helped me at length to realise the actual state of things. It is noticeable how the earlier symptoms, indicating pressure on the surface of the convolutions, receded to make way for the abolition of the mental and motorial faculties, which must have been caused by pressure on the deep-seated ganglia. In these facts, we have a key to the new direction of the pus-containing sinuses. Dr. Gull contends that a scrutiny of every organ of the body is necessary in order to fix the exact etiology of any case of abscess of the brain; but so exhaustive and laborious a necropsy is not within every one's power; and Lebert distinctly admits the possibility of "idiopathic cerebral suppuration".

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* Read before the Bath and Bristol Branch.

CASES OF INTESTINAL OBSTRUCTION; WITH REMARKS.*

By WILLIAM CADGE, F.R.C.S.,

Surgeon to the Norfolk and Norwich Hospital.

Every case of Intestinal Obstruction, threatening to be, or being, invincible from any cause, is of such interest to the surgeon, and is fraught with such danger to the patient, that I shall make no apology for occupying the time of the meeting while I narrate and comment on a very few of the many cases which have come under my notice; and I shall only mention those which present some feature of surgical or pathological interest.

Before alluding to cases of complete, I would briefly note the occurrence of cases of partial, obstruction. In many of the former, there is a period, of variable duration, during which the patient has symptoms like the following: frequent bilious attacks, so-called—that is, vomiting, abdominal pain and distension, and more or less constipation. Now these very common symptoms would not usually attract much attention; nor need they, if they do not frequently recur; but if they are of frequent occurrence, it is of essential importance to examine carefully the abdomen for some mechanical explanation. A short time ago, I saw a gentleman, who had had these frequent bilious attacks; and, when I carefully examined him in the recumbent position, with the knees drawn up, I could detect a hard tumour of the size of one's fist, on the right side of the umbilicus, deeply placed amongst the intestines. I could not ascertain either its nature or its exact connexions; but it was clearly the cause of occasional partial stoppage to the passage of the intestinal contents. It never led to complete obstruction; but he died worn out with these repeated "bilious attacks."

In another instance, which I watched for two or three years, and which I have put on record, the early attacks were similar to those I have described, and were thought to be due to gout or over-indulgence, for the patient was a country gentleman who "fared sumptuously every day"; but, with the greatest care over diet, the attacks still recurred. He would frequently vomit large quantities of the contents of the small intestines; there was great distension of the abdomen and increased peristaltic movements; sometimes the vomiting was relieved by an attack of diarrhœa; and so the case went on until the patient died exhausted; but he never suffered complete obstruction.

On *post mortem* examination, I found a fibrous tumour in the mesentery, which dragged the small intestine so much out of the course as to form a sort of elbow, and as to partially obstruct the passage of its contents. I was early enabled to diagnose the mechanical nature of this obstruction, by watching the abdomen during an attack. Although I could never feel any tumour, I could feel the violent peristalsis going on, and hear that peculiar gurgling resembling water flowing out of a full decanter; and it is these two symptoms—namely, distension and vehement peristalsis—which, added to pain and sickness, enable one to form an accurate diagnosis as between simple bilious attacks and those which depend on some mechanical cause.

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* Read at the meeting of the East Anglian and Cambridge and Huntingdon Branches.

Similar to these somewhat, but with less sickness and more constipation, are those cases of stricture of some portion of the large intestine, in which there are occasional attacks of partial obstruction.

I pass by those cases of partial obstruction caused by impaction of intestinal contents. They chiefly affect the large intestine, are always to be detected by careful exploration, and ought not to lead to much difficulty as to diagnosis. I come to those formidable cases of complete obstruction which so deeply rivet our attention.

In endeavouring to realise a correct diagnosis, the most important point is, to ascertain if the seat of obstruction is in the small or large intestine; and I will just run over the differential signs.

1. The chief, I believe, and the most reliable, is this, that, when the small intestine is obstructed, whether by intussusception, bands of lymph, or diverticula, the symptoms are much more acute and violent. Peritonitis and death ensue much earlier than when the difficulty is in the large bowel, whether from stricture, or twisting, or any other cause.

2. Pain is more severe and early when the small intestine is constricted.

3. Distension is greater, and the peristaltic movements are more obvious, when the large bowel is obstructed.

4. The amount of urine secreted has so often not corresponded with the point of obstruction, and seems to bear so much relation to the amount of vomiting, that I cannot regard it as a sign of any value.

But these, and other, differential symptoms, though good and valuable, must not be taken as more than moderately applicable in practice, for they are liable to very frequent exceptions. I remember Mr. Norgate opening the descending colon of a man, aged 36, who had been constipated for seven days. The abdomen was greatly distended; there was frequent fæcal vomiting; no peritonitis; tongue clean; pulse 120, and weak. For the first three days, he had taken calomel and purgatives; for the last three or four, nothing but a little ether and opium. No stricture could be felt in the rectum; but a tube could be passed only six inches, and fluid returned as soon as injected. The distension of the body was very great; and it was thought that the outline of the large bowel could be traced; and, owing to this fact and the difficulty of passing the tube and injection, the diagnosis was obstruction at the sigmoid colon. When the descending colon was opened, only a little air and some slight putty-like fæces escaped. A flexible catheter was passed up some inches, and water injected; but it returned unchanged; and it was clear that a mistake of diagnosis had been made. The symptoms persisted, and death occurred thirteen days from the commencement of the attack. The necropsy revealed the whole large intestine shrunk and empty; the ileum strictured by a band of false membrane passing between the mesentery and the brim of the pelvis; the proximal part of the bowel dilated, black, and burst; and general peritonitis. The error in this case was chiefly due to the fact, that neither tube nor injection would pass readily; and to this I will refer again.

Here is another case in contrast to this. A stout healthy farmer, residing in Suffolk, was attacked suddenly with vomiting and pain in the body. Aperients were prescribed, the stronger purgatives, including croton-oil and injections of all kinds, for three days, without relief. The abdomen grew greatly distended; peritonitis came on, and leeches and calomel and opium were ordered; but the case wore a bad aspect; and late at night on the fourth day, Dr. Copeman and I visited him. He was greatly prostrated. Pulse 110. The abdomen was very tympanitic; there was not much general tenderness, except towards the right iliac fossa, and there percussion gave a dull sound, there were signs of a good deal of liquid, and this was also the chief seat of pain and tenderness. I passed up a tube fourteen or fifteen inches, and three pints of fluid would readily enter. We thought that the obstruction was in the small intestine near the cæcum: 1, because the symptoms were very acute; 2, because there was no great bulging in the line of the large intestine; 3, because a tube and injections in large amount passed so readily; and 4, because the pain and tenderness seemed to point exactly where, in front, the difficulty resided. I could not open the colon in either loin, because it was thought to be empty; nor could I consent to open the abdomen in the median line in front, with the view of groping my way to the source of obstruction; I proposed, therefore, if, at daylight, no relief by inflation or other means to be tried could be obtained, to cut down to the probable seat of mischief in the right iliac region; take the small chance of discovering and removing the cause of obstruction, or, failing that, to open that portion of the bowel which should be found most distended, and so to give immediate relief to the symptoms, and, if life could not be saved, death would come with less suffering. This plan was adopted. I cut down vertically over the iliac fossa, and soon came upon a dark distended portion of intestine, and opened it freely. Nearly two chamber utensils full of fæces gushed out, together with small lumps of solid matter, myriads of currant-seeds, and some entire black currants. The finger in the bowel reached towards the lumbar region, leaving it doubtful whether the bowel opened was the ileum or cæcum. I stitched the bowel to the edges of the wound, and covered the part with a soft sponge. The abdomen became softer and more flaccid, and for some time he had no sickness; but the peritonitis continued, and he died two days after the operation, and only five or six from the commencement of the illness. A *post mortem* examination shewed that there was a stricture of the ascending colon, and that I had opened the enormously distended cæcum—in fact, that Littre's operation had been done, I may say unconsciously.

In this case, our chief means of diagnosis were at fault. The symptoms were less acute and rapid, notwithstanding that the obstruction was in the large intestine; and I do not remember that, as in stricture cases generally, there had been any previous attacks of partial obstruction.

One more case I wish to mention bearing on this point.

A gentleman, aged 70, had suffered for many months with occasional attacks of constipation and tenesmus. He usually took an aperient pill, and the attacks passed off. Occasionally he voided a little blood. In one of these periods, about two months ago, his pill failed to act, and he became sick. He took castor-oil, was again sick, had more pain; and then sent for his surgeon, Mr. Everitt, who prescribed five grains of calomel and some castor-oil. This failed to act; and a tube was passed up the rectum to the extent of twenty-eight inches, and four pints of injection introduced. Still no fæcal matters were removed; the abdomen became greatly distended. On the third day, aperients were discontinued, and calomel and opium substituted, to the relief of the patient. On the fifth day, I visited him, and found him in no pain, except when violent peristalsis occurred; not sick, except when he took food. His abdomen was greatly tympanitic, not tender; resonant every where, but towards the right iliac fossa less so; there it felt more resisting, and was rather more tender on firm pressure than elsewhere. There was no general peritonitis; pulse 80; tongue rather dry; but he was still taking opium to slight narcotism. The rectum felt healthy to the utmost reach. The history of long standing attacks of pain and constipation, the fulness and tenderness over the cæcum, the fact that twenty-eight inches of tube and four pints of injection would be received, pointed strongly to stricture of the large intestine as the cause of obstruction, and that the stricture was probably situated in the ascending or transverse colon. The opium treatment was continued for a day or two. Very little food was given. Then the bowels were once more solicited to act by a few aperient pills, which only increased peristalsis and pain; and he began to lose strength and power. In two days, I visited him again, and found matters in the same state, except that he was weaker. I therefore opened the colon in the right lumbar region. The patient rested, during the operation, on his left side; and, when the bowel was first opened, only some flatus and a piece or two of solid fæces escaped. I passed my finger up and down the bowel, but could feel no obstruction; and I began to fear that my diagnosis was wrong, and that the aperture was below the obstruction. When, however, the patient was turned on his back, so as to make the wound the lowest instead of the highest part, a large quantity of liquid healthy fæces gushed out, and continued to flow for some time; so that the abdomen became soft and far less tense, and the patient felt comfortable. The next day, Mr. Everitt wrote: "He feels great comfort, and no pain; free discharge of fæces; pulse gone down to 92; no sickness. All things look very favourable at present." But this auspicious state of things did not continue. He seemed to fail for want of rallying power; could not take food; and his strength yielded. As he expressed himself, "I am very comfortable, but dying;" and he did die, a week after the operation, and about a fortnight from the commencement of complete obstruction. Unfortunately, the opportunity of making a *post mortem* examination was missed; but there can, I think, be no doubt that the diagnosis was perfectly correct, and that a stricture existed somewhere about the ascending and transverse colon.

These cases show how little general rules apply to individual instances. The average duration of cases of stricture of the large intestine is twenty-three days. I have lately watched a case of stricture of the sigmoid flexure, in which total obstruction existed for more than a month before causing death; and I believe, in some instances, six weeks, and even two months, have been reached. But, in one of these cases, death ensued in six days; and in the other, in thirteen days—a time quite as long as the first instance I mentioned, in which the obstruction existed in the ileum.

I have but little to say on the treatment of cases of obstruction. I adopt, to the fullest extent, the sedative or narcotic plan. It is here that opium exerts its most happy influence. It assuages pain; it quiets the writhing peristaltic action of the bowels, when no action of any kind can avail; it gains time, by delaying the inevitable inflammatory changes that must ensue, and, by so doing, gives the chances, in cases of intussusception and others, for Nature to work a cure by casting off sphacelated portions of bowel, and sealing the adjacent surfaces; and, when it cannot assist a cure, it comforts the patient beyond measure in the dying agonies of a mortal disease. As to purgatives, I would say this, that whereas, in the early, and therefore doubtful, period of these cases, no surgeon would probably feel easy or justified in abstaining from their moderate use, so, when the symptoms become more urgent, and particularly when distension, violent peristalsis, and borborygmi, are present, they are not only useless, but positively pernicious. I am near the truth in saying that all curable cases of obstruction, where purgatives have been used, would as surely have recovered without them; and that, in all those which are incurable, they do, from first to last, nothing but harm.

Of all the other methods of relief, such as tobacco enemata, inflation, galvanism, cold affusion, crude mercury, etc., I say nothing, because I have nothing practically useful to say; but there is one very popular and common method of diagnosis and treatment, about which I wish to say a few words—viz., the use of O'Beirne's tube.

In every case in which I have been consulted, I have always been told that a tube had been passed up the rectum more or less, perhaps only a few inches, perhaps through the sigmoid flexure into the descending colon, ten, twelve, fifteen, twenty, or thirty inches; and a respected colleague of mine assured me that he had certainly felt the point of the tube at the caput coli, and that upwards of three feet was required. For many years I have seen reason to doubt the wisdom of using long tubes in this supposed manner; and I would ask, Is it possible to pass such a tube much beyond the rectum? Did it ever reach even the descending colon? and, if it did, what possible good could it do? Dr. O'Beirne, some thirty years ago, promulgated some crude theory about the function of the rectum, and maintained that it was, in health, always empty, except just before defæcation; that the sigmoid flexure of the colon was the natural reservoir for the fæces; and that, when impaction occurred, it was at this part invariably; that there was a sort of annulus or ring separating the rectum from the colon; and that the so-called O'Beirne's tube could and ought to be passed through the ring into the sigmoid flexure, and the cure would be sure and easy. But, so far as I know, he never dreamed of passing it beyond this part; he left it to his successors to carry his name and his tube into higher regions. Without being able to prove the fact on the living body, I still entirely disbelieve in the possibility of any such instrument ever reaching beyond the sigmoid flexure. It is against the laws of natural philosophy to believe that one flexible tube can pass along another flexible tube which is bent almost at right angles on itself, as the sigmoid flexure of the colon is. In the dead body, I have often tried, and induced others to try, the experiment; and I have never yet seen the tube reach the descending colon. But I may be asked, If twenty or thirty inches pass easily along, what becomes of it? It may not turn back on itself, for a finger passed alongside it into the rectum can feel perhaps only the single straight tube. This is what happens: its point first impinges on the promontory of the sacrum; then, by a little manœuvring, it slips over this, and enters the sigmoid flexure, where its point inevitably becomes entangled, and can pass no further. But the meso-colon will yield and stretch; and the tube, being pushed on, bends forward in an arched manner into the cavity of the abdomen, and may easily be felt externally, and lead to the belief that its point has reached the descending or transverse colon. This, I believe, is what usually happens when long tubes are passed; but, even if I am wrong on this point, let me ask, what useful purpose can it answer to pass a tube into any part of the colon? If a stricture exists at the upper part of the rectum, I can quite see that instruments of increasing size—whether tubes or bougies—may and will do great good; but, where the stricture is higher up, it requires a strong imagination to suppose that a tube could be directed so as to hit the point of obstruction; and, if it did, it would be very doubtful practice to carry fluid through the narrowed part, where there is already too much liquid. If the use of the tube be to convey large injections high up the bowel, I maintain that this can be done, if done skilfully, by simply injecting into the rectum, and taking proper care to close the anus; and this, it appears to me, is the chief use of large injections, that the quantity of fluid which can be gradually introduced is some guide to the position of the obstruction. If three or four pints can be retained, the stricture must be above the sigmoid flexure, probably above the descending colon. Sometimes eight or nine pints may be used, when there is no peritonitis; and this would prove that the obstruction must be above or near to the ileo-cæcal valve. But these injections, invaluable as they are, can just as well, or better, be given by a short tube in the rectum, as by a longer one.

But the long tube may lead to danger. By its incautious use it has been known to pass through the coats of the bowels and cause irreparable mischief. Cases of this kind are recorded, but I wish not to dwell on what may perhaps be considered an abuse of the instrument. But it may, and I believe often does, lead to error or confusion in the diagnosis; thus, in one of the cases I have noticed the surgeons were mainly led to the opinion that the obstruction was in the sigmoid flexure, because the tube would not pass more than the length of the rectum, and it need but little inquiry into the many cases of intestinal obstruction, which are published, to perceive that this is a very fruitful source of error for those who place much reliance on its use. It is my firm conviction that O'Beirne's tube is an instrument which may well be laid aside in most of these cases; that it is valueless as a means of diagnosis; useless in treatment, and may, in careless hands, be a source of danger to the patient.

THERAPEUTICAL MEMORANDA.

TREATMENT OF CONSTITUTIONAL SYPHILIS BY CARBOLIC ACID.

By Henry Greenway, Esq., Plymouth.

In the early part of the present year it occurred to me that, as the sulphites of soda and magnesia were employed (and found useful) in checking the onward progress of certain febrile diseases, on the theory that sulphurous acid was powerful in arresting the development of the *materies morbi*, the same drugs might prove serviceable in the treatment of constitutional syphilis. I accordingly tried the experiment; and, although in a few cases there was a slight improvement observable, I failed to render any permanent benefit. Possibly, I did not persist sufficiently long in the treatment. I find that the same idea has occurred to others in the profession (see British Medical Journal, October 10th, pp. 390); and, it would seem, the practice had been attended with more favourable results.

Carbolic acid, although occasionally given internally, is at present held in great repute as an external application in cases, ranging from the simple incised wound up to the cancerous and syphilitic sore. Thinking this acid might, by permeating the system, render sound structures infection-proof, when exposed to organic poisons, introduced into the circulation, and thus allow the morbid element to become exhausted, I lately determined to try its effects in constitutional syphilis, and I am happy to say my experiments have, so far, proved successful. Two of my cases were old standing, and had resisted all the usual treatment—mercury, by pills, baths, and inunction; iodide of potassium, in various doses; chlorate of potash, sulphites, etc. I prescribed five-minim doses of the Glycerinum Acidi Carbolici (*P.B.*), in one ounce and a half of water, to be taken three times a day, gradually increasing the strength to ten minims, and in the course of a few weeks all signs of the secondary eruption had disappeared. Whether the *modus operandi*, at which I have hinted, be correct, or whether the poison itself is acted on and rendered harmless, I will not presume to say. All my patients were women, and neither of them suffered from poverty. In the most stubborn case, the patient was surrounded with every comfort. The usual rules, as regards diet and clothing, were enjoined.

My experience, at present, in the treatment of this disease by carbolic acid is not sufficiently extensive to enable me to offer to the profession a so called *specific*, but I trust my success will lead others to give the remedy a trial. By way of caution, the drug should be made with the colourless acid of the *Pharmacopœia*. I mention this, as some of my prescriptions have been dispensed with an inferior drug (made with the brown crystals of commerce), which is too offensive for internal exhibition. I have not ventured to administer the crystals in the form of a pill. I would suggest the employment of this treatment for a few weeks during the primary stage of syphilis, without waiting for the appearance of secondary symptoms. Possibly, this acid may prove useful in other kinds of blood-poisoning.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

MIDDLESEX HOSPITAL.

ENCHONDROMA IN THE PAROTID REGION: WITH REMARKS.

(Under the care of Mr. HULKE.)

THE following report has been kindly furnished by Mr. THOMAS FLOWER, House-Surgeon.

Tumours in the parotid region are commonly enchondromata or myxomata, sometimes fibro-sarcomata, and perhaps less often adenoid. Not unfrequently they are mixed growths, one portion of a tumour exhibiting a fibrous, another part a sarcomatous or cartilaginous, structure. The enchondromata are distinguished by their usually slow growth and their tuberous contour. They are separated from the parotid gland-tissue by a limiting capsule, which probably plays an important *rôle* in their evolution; and, as they enlarge, they displace the adjacent tissues without implicating them. It is owing to these properties that they can be enucleated with comparative facility under anatomical circumstances which would render it impossible to thoroughly extirpate an infiltrating new growth—*e. g.*, cancer. The following is an interesting example of an enchondromatous tumour.

A woman, aged 29, was admitted into Bird Ward on August 13th, 1866, with a very firm subglobular tumour, of the size of a walnut, below the left ear. It cropped out between the ramus of the lower jaw and the mastoid process, its upper border being in the level of the lower part of the tragus. It was moveable upwards and downwards, but not from side to side; and its deep attachments were not definable. The skin was free. The tumour was not at all tender; but it was often painful, and somewhat hampered the free movements of the jaw. She had observed it about eighteen months, and said that it grew slowly. It was removed through an incision parallel to the ramus of the jaw. Overlying it was a stratum of parotid gland tissue, one-fourth of an inch thick; and it was also crossed by a large branch of the portio dura, which was turned aside. Besides the superficial lobe, there was another, which dipped deeply between the styloid process and the jaw, and was furrowed by the external carotid artery. The wound suppurated, and left a minute salivary fistula in the upper end of the scar, which was eventually closed by the actual cautery. The saliva was perfectly limpid, and not in the slightest degree viscid. During eating, it oozed so freely that it ran down her neck upon her dress in a thin but continuous stream.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

A CASE OF STOMACHAL VERTIGO SUBSIDING UNDER TREATMENT.

(Under the care of Dr. BUZZARD).

IN the 3rd volume of his *Clinique Médicale*, Trousseau has described, with his usual graphic power, a functional disorder to which he gives the name *"Vertigo à stomacho læso" or "vertige stomacal."* Transient giddiness associated with faulty digestion is of every day experience, but we do not often meet with an instance of such severity as the following, which bore a strong resemblance to the case upon which Trousseau founds his lecture.

The patient, James B., aged 48, was a farm-labourer, a big heavy man, of anæmic aspect, with a face seared by innumerable wrinkles. His hair and beard were gray, and his appearance altogether that of a man several years older than his asserted age. His complaint was of "giddiness in the head," of which he had suffered attacks for a twelvemonth past. About every ten days or oftener he would get an attack which he thus described. His stomach would first appear to be filled with wind; then there was noise in his ears, especially the left ear, a noise sometimes as of ringing of bells or of a railway train upon the line. This was immediately followed by giddiness, so great that he could not stand without holding on to some support. Sometimes, but not always, there were little twinkling lights before his eyes. If he lay down on his back the room would appear to be swaying and whirling over him, and the only relief he could obtain was by lying on his face. An attack would last from half an hour to two or three hours, during which time he could do nothing. After that he could resume work, but felt queer, dull and heavy about the head, for two or three days afterwards. He never lost his senses during the attack. He sometimes retched but never vomited. The attacks had been more and more frequent of late. In his earlier attacks he used to feel numbness in both thighs, and broke out in cold sweats. He fancied that tea and pork were both liable to bring on an attack. His general health had been very good with the exception of indigestion from which he had long suffered. At twelve years of age he had acute rheumatism. He had never had gout.

On examination, his pulse was found good and regular, the area of cardiac dulness not increased, the apex beat in its normal situation and there was no *bruit.* Other organs were also, as far as could be determined, healthy, and he shewed no thickening of arteries. Urine, free from albumen, containing abundant lithates. On January 21st, the day of his application, Dr. Buzzard ordered him a grain of iodide of potassium, five grains of bromide of potassium, and ten grains of bicarbonate of potash, twice a day, to be taken during meals. Under this treatment the attacks immediately diminished in frequency and duration. He continued taking this medicine till March 17th when half a drachm of tincture of calumba was added to each dose. On April 7th, it is noted "He is a great deal better. He occasionally gets a mistiness before the eyes but has had no attack of giddiness for five weeks." On May 19th, the experiment was made of discontinuing the alkali and bitter and giving him five minims of the solution of pernitrate of iron, three times daily. This did not answer; giddiness returned, and one grain of the iodide with five grains of bicarbonate of potash with a grain of tartarated iron was ordered twice daily. He continued to take this pretty regularly until September 8th, when he felt well enough to do without assistance. He had then had no attack of giddiness for twelve weeks.

Dr. Buzzard remarked upon the importance of a correct diagnosis in such a case as this, especially in private practice, where such excessive vertigo would be apt to be regarded by the patient and his friends as premonitory of some very serious head affection. The symptoms in this case were more than ordinarily severe, but, especially among professional men with much mental labour, it was not at all uncommon to meet with instances where less marked vertigo caused great distress and alarm. He had, indeed, lately treated a gentleman to whose temples leeches had been formerly applied for a vertigo which immediately depended, he had no doubt, as this man's did, upon imperfect digestion. They had made him much worse. It was amongst anxious persons, engaged in onerous business, that imperfect assimilation leading to such a symptom was peculiarly apt to occur, and for this reason, the affection was one which it was more common to meet with in private practice than amongst hospital patients. Whilst recognising the influence of the stomach in causing these attacks, he believed that there was always a faulty condition of the nervous system which conduced to them—a condition, he thought, closely allied to the epileptic. In the case under consideration there was very evident anæmia; and, whilst he gave alkalies to correct any acid (ascribable, probably, to acetic or butyric fermentation of food rather than to excess of gastric juice), he was careful also not to neglect the improvement of the man's blood by the use of steel. The iron at first ordered was given, doubtless, neither in the proper form nor dose, and it probably added to the difficulty of the stomach; the minute dose of a very mild preparation, the tartarated iron, answered well the intended purpose. As evidence of the probable morbid condition of the nervous system in such cases, he mentioned that he had seen patients in whom vertigo of precisely similar character was apt to be produced sometimes by faulty digestion, at others, through the medium of one or other of the special senses. Amongst such he instanced reading as liable, sometimes, to produce an attack; the rapid change of accommodation in the eye, caused by drawing distant objects; or gazing at moving bodies of troops. Occasionally too, in persons so predisposed, shooting became an almost impracticable pastime owing to the vertigo induced by the noise of the discharge.

LEEDS PUBLIC DISPENSARY.

COMPLETE DESTRUCTION OF PENIS BY SYPHILIS.

(Under the care of T. R. JESSOP, ESQ.)

ALTHOUGH phagedænic syphilis is not unfrequently the cause of extensive loss of substance, it is fortunately of rare occurrence that such wholesale demolition has taken place, before the surgeon is able to arrest its progress, as is exemplified in the following case.

Joseph W., aged 34, was admitted at the Leeds Dispensary, under Mr. Jessop's care, on September 25th, 1868. His history was as follows.—Ten months before, he contracted a gonorrhœa, and, at the same time, a syphilitic sore made its appearance upon the frenum of the prepuce. He at once placed himself under medical treatment, and for a time his condition was somewhat improved. Shortly, however, the sore began to spread, and the disease continued gradually to eat away the glans, prepuce, and body, until, at the end of eight months, the penis had altogether disappeared. Even now, there remained a large irregular ulcer, marking the spot, on the front of the pubes, to which the penis had been attached, and showing a tendency to spread downwards upon the scrotum.

It was when matters had proceeded thus far, that he came under observation at the Dispensary. He was very thin, sallow, and unhealthy looking. In both groins were cicatrices, the results of suppurating buboes, which had accompanied a former attack of syphilis. Above the centre of the ulcer was an opening, through which the urine was passed with considerable force. He was ordered ten grains of the iodide of potassium in two ounces of syrup of sarsaparilla three times a day, and the sore was dressed with a nitric acid lotion.

On October 6th, the wound had lessened considerably; and on October 23rd was nearly healed, his appearance and condition being much improved.

REMARKS.—The arrest of the gangrenous disease would seem to have been spontaneous in this instance; at least I was unable to make out that any other than the simplest measures of treatment had been adopted. And I have several times seen the same desirable result under somewhat similar circumstances; especially have I noticed a sudden stoppage of all destructive changes, in cases where violent hæmorrhage has taken place from one large vessel which has become involved. Twice I have seen the femoral artery opened in the course of a phagedænic sore, and, in each instance, a rapid healing was the immediate consequence.

QUEEN'S HOSPITAL, BIRMINGHAM.

WASTING PALSY, FROM EXCESSIVE MUSCULAR EXERTION COMMENCED IN EARLY LIFE: USE OF STRYCHNIA AND GALVANISM: ARREST: REMARKS.

Under the care of Dr. FLEMING.

(Reported by JAMES SAWYER, M.B., Resident Physician).

J. D., aged 36, iron-moulder, was admitted on August 12th, 1868.

History.—He had enjoyed good health until ten months before admission. He had been employed since the age of eight at his present occupation; he worked ten hours a day, frequently lifting heavy ladles of metal. The power of grasping in the right hand appeared to have been first impaired; afterwards he felt a difficulty in raising weights. For a week or two he had a sensation of "pins and needles" in the right palm and fingers; this, however, soon passed away and did not return. The loss of power and wasting in the arm became daily more apparent. He had never suffered pain. There was no family history of tubercle or of cancerous disease.

Condition.—On admission, the right hand, arm, and forearm, were markedly wasted. There was distinct flattening of the deltoid and pectoralis major on the right side; the supraspinatus, infraspinatus, and serratus magnus, on the same side, were obviously diminished in size. The wasting of the muscles of the ball of the thumb and interossei of the right hand was especially marked. There was no atrophy of the muscles elsewhere in the body. The muscles of the right upper extremity felt soft and flabby when compared with their fellows on the opposite side, and vibratory tremors might be seen passing along the bellies of the wasted muscles. The circumference of the right arm, opposite the middle of the forceps, was 9¼ inches, that of the left arm 10¾ inches; the measurement round the fleshy part of the right forearm was 9½ inches, of the left 10½ inches. He could raise, but with difficulty, a cup to his lips; and he could not place his right hand on the crown of his head. He had a feeling of numbness in the right arm, but no pain. There was no impairment of the cutaneous sensibility. The muscles of the affected arm answered readily to the galvanic stimulus, but with less force, corresponding to their smaller size, than in the opposite arm. The right arm and hand felt colder to the patient and to the observer than its fellow; and the thermometer gave as the result of many observations carefully made by Mr. H. L. Snow, clinical clerk, an average difference of three-fifths of a degree. The mind, nutrition, and all the other functions were in strict health. He was a strong and well made man. There was neither trace nor history of injury to the head or spine, and there were no signs of lead-poisoning. The treatment comprised good food, and the tonic regimen; rest from work; the internal use of strychnia; friction; gentle exercise; and mild but regular faradisation of the limb. He left the hospital on November 7th.

REMARKS.—The case now related is a good example of the partial form of wasting palsy, which has been well described by Dr. Roberts in his essay on this disease (*System of Medicine*, vol. ii, p. 166). In this patient, the affection was confined to the right upper extremity, and was caused by excessive muscular exertion, commenced *at the early age of eight years*, and often in later life prolonged for an undue number of hours in the day. We have traced heavy labour in early life in the history of other cases of muscular wasting, and we can readily understand how such effort at a tender age, while the muscles are still small and soft and the frame is imperfectly formed, should predispose to progressive atrophy at a later period, but we have not seen this circumstance specially referred to as a cause of the disease.

There is encouragement to believe that the disease has been arrested. The tremors and cramps in the muscles of the affected arm have almost ceased, the muscles being firmer, and the patient has unequivocally more power in the arm and hand, being able to perform many movements now that were impossible to him on admission. He thinks the muscles are larger, but this impression has not been confirmed by careful measurement. The arm gives now the same measurement as it did three months ago, but, if not increased in size, the muscles are improved in quality. The tremors which were noticed on admission in the *left* arm have entirely ceased. The man has been advised to abandon his work in the black country, and to seek a lighter occupation.

DUBLIN HOSPITAL REPORTS.

MATER MISERICORDIÆ HOSPITAL.

AGGRAVATED DYSPEPSIA: DYSPHAGIA: PROFUSE SALIVATION: ATHEROMA OF THE ARTERIES: RECOVERY.

(Under the care of Dr. HAYDEN.)

HUGH M., aged 63, a herdsman from the county of Galway, of temperate habits and hale-looking, was admitted into hospital on the 18th June last. About twelve months previously, he evinced for the first time symptoms of gastric derangement, such as a feeling of discomfort at the pit of the stomach after taking food, acid eructations, and flatulence. He next experienced occasional difficulty of swallowing; the seat of obstruction being behind the ensiform cartilage. This difficulty subsequently became constant, and had reference to all articles of a low temperature, whether solid or liquid; very small morsels were with difficulty forced down after repeated attempts. Food was occasionally rejected by the stomach, mixed with a vast quantity of clear liquid; warm liquids were drunk with great facility, and generally retained; warm solids were likewise swallowed. There was very little emaciation; no pain save after food; no pain in the back at any time; and no hæmorrhage from the stomach or bowels. The pulse was 60, full, and occasionally intermitting. The radial arteries were rigid, the right more so than the left. The heart-sounds were indistinct and the impulse weak; the superficial cardiac dulness was normal; there was strong pulsation of the abdominal aorta, but no dilatation or irregularity of outline. He had no special tenderness in the epigastrium. Bowels confined; thirst; urine normal; decubitus indifferent.

After a residence of some weeks in hospital, during which treatment was directed to the bowels and stomach, the latter consisting of bismuth and soda, lime-water, and mild bitter tonics, he was attacked with profuse salivation, lasting two days, during which the discharge amounted to several quarts. This was unassociated with tenderness of the mouth, and no mercury had been taken; he was unable to take food save in very minute quantity, subsisted mainly upon stimulants, and became weak to the last degree. He was now put under treatment with nitrate of silver (quarter of a grain) and watery extract of opium (half a grain), given three times a day; and, after a few weeks upon this treatment, he recovered strength and flesh; he could take solid food in moderate quantity, and swallow it with facility. In short, all the prominent symptoms of his illness disappeared; and he left hospital for his home on the 25th July. When leaving, he was cautioned against the use of vegetables.

According to a report since received, the poor man, shortly after his return home, yielded to his craving after a potato, after eating which all his former symptoms returned. He next passed a fortnight at the seaside, without deriving benefit; and he died ten days after returning home.

It is much to be regretted that no opportunity was afforded for making a *post mortem* examination of the body. Dr. Hayden, however, failed to detect any physical evidence of organic disease, although he had frequently and most carefully examined this patient with a view to the discovery of such. The improvement, amounting to total disappearance of all urgent symptoms, which the man's health underwent during the latter period of his residence in hospital, would seem to confirm the impression left upon Dr. Hayden's mind as to the negative result of his repeated explorations. Salivation was caused, in all probability, by reflex irritation of the salivary glands, originating in the stomach, and transmitted through some undefined channel, possibly centripetally the pneumogastric, and centrifugally the tympanico-lingual (for the submaxillary gland) of Bernard; or the afferent channels may have been supplied by the vaso-motor nerves of the glands.

DYSPEPSIA, ANÆMIA, AND GREAT DEBILITY: RECOVERY.

(Under the care of Dr. HAYDEN.)

William M., aged 44, a labourer, and brother of the last mentioned patient, with whom he resided, and whose diet and habits were identical with his, was admitted into hospital August 13th, 1868. He had been ill for six months previously. Illness commenced with retching and vomiting; some blood was thrown up, but none passed by the bowels. When admitted, the man was remarkably pale and languid, presenting the appearance of one suffering from leucocythæmia. White blood-corpuscles, however, were only very slightly in excess. Pulse 72, weak. He had had pain in the abdomen occasionally, which commenced about the navel, and passed up towards the chest; it was irrespective of taking food, which, whether liquid or solid, was stopped opposite the ensiform cartilage, and was often as long as two minutes in gaining entrance into the stomach. There were frequent gaseous eructations from the stomach, accompanied occasionally by watery and tasteless fluid, and bringing much relief. He had pain on pressure at the scrobiculus cordis. The tongue was slightly furred, and deviated persistently to the left side on protrusion. There was no paralysis elsewhere. The bowels were confined; he had scarcely any appetite for food. The heart and lungs were in a healthy state. The urine was normal. Over the iliac fossæ and the crests of the ilia was some nut-brown mottling, suggestive of suprarenal melasma. The treatment consisted of bismuth and lime-water in infusion of gentian thrice daily; a pill at night, containing two grains of watery extract of opium; and aperients.

On August 21st, no improvement having taken place, this patient was put under the treatment which had been so successful with his brother, whose symptoms were nearly identical with his—viz., nitrate of silver and opium, given in the form of pill—and with the most favourable result. He became now subject to intercurrent attacks of diarrhœa of a most obstinate character, which reduced him very much, and were arrested only by large doses of gallic acid and opium. The discharges were unaccompanied by pain, and were free from blood.

October 18th. He had been progressively improving since the last report, with the exception of occasional checks from diarrhœa. The difficulty of swallowing had long since ceased. He was now able to take food and exercise with enjoyment. He slept well. There was no eructation. The bowels were regular. He was still, however, pale; and the tongue deviated to the left, as at the date of admittance. On October 24th, he was discharged.

The close relationship of these two patients, the similarity of their food and habits, and in a striking degree of their symptoms, would naturally suggest to the mind a common cause of their illness. The most careful inquiry failed to discover any tangible dietetic cause, beyond the constant and almost exclusive use of the potato, which, previous to the potato-blight, constituted the staple food of the Irish peasantry, and is even still being very freely used. The people have generally thriven upon this diet; still, it is eminently conducive to flatulence, and may be readily charged with the symptoms of aggravated dyspepsia manifested in the foregoing cases.

The symptom of dysphagia, or œsophageal obstruction, referred in both cases to a point behind the ensiform cartilage, Dr. Hayden regards as the consequence of gastric flatulence, and as being due to spasm of the œsophagus in this situation. Lastly, he calls attention to the benefit that may be derived from the use of nitrate of silver and opium in dyspepsia of this character, as exemplified in both cases.

SOUTH DEVON AND EAST CORNWALL MEDICO-CHIRURGICAL SOCIETY.—The annual meeting was held at the Athenæum, Plymouth, on December 11th, 1868. The report, which was read by the secretary, stated that the number of members (which are all registered medical practitioners) is now forty-two, and that fifteen meetings had been held during the present year. The officers elected for the ensuing year were: —*President*, Mr. William Swain; *Vice-President*, Mr. Eccles; *Committee of Management*, Mr. Morris and Dr. J. Wilson; *Secretary and Treasurer*, Dr. C. A. Hingston.

PROGRESS OF MEDICAL SCIENCE.

SURGERY.

TURPENTINE IN HOSPITAL GANGRENE.—An article in the *Archives Méd. Belges* (vol. vi) contains an instance of the utility of turpentine in hospital gangrene. At the Military Hospital in Antwerp, the disease broke out, without any apparent cause, among thirty patients. The various remedies usually employed in such cases—viz., charcoal-powder, powder of cinchona and camphor, chlorate of potash, perchloride of iron, etc.—were quite ineffectual; and this in spite of the dispersion and isolation of the patients, careful attention to the dressing, and good diet. The aspect of things was changed as soon as essence of turpentine was applied. The wounds, having been washed, were dressed with charpie dipped in the turpentine; and from this time the character of the wounds became very rapidly modified. Subsequently, the process of cicatrisation was aided by the application of storax and powdered cinchona.—*Bull. Génér. de Thérap.*, 15 August, 1868.

REMOVAL OF A BULLET FROM BETWEEN THE INNOMINATE ARTERY AND THE TRACHEA: USE OF TANGLE.—Professor Volkmann of Halle relates the case of a law student, a volunteer at the battle of Königgrätz, who received a bullet in the neck. It entered a finger-breadth above the left sterno-clavicular articulation, passed through the edge of the sterno-mastoid muscle, and lodged. There was violent hæmorrhage, which produced deep syncope. On examination, it was found that the shot had passed backwards, to the right, and downwards, towards the mediastinum. No attempt was made to extract the ball; this would have led to a renewal of the hæmorrhage. The reaction was slight; there was no indication of wound of the pleura or of the lung; some swelling of the neck took place, but the fever was moderate. The patient (who had also a gunshot wound of the calf of the leg) was able to leave his bed at the end of four weeks. The track of the shot in the neck had become converted into a narrow fistulous canal, and the patient confidently believed that he could feel the projectile. In coughing, he felt pressure at the lower part of the trachea. In deglutition, also, he experienced often a slight impediment below the upper edge of the manubrium sterni. The fistula was explored about a hundred times by various surgeons, but the ball could not be felt. In October 1867, the patient came under Professor Volkmann's care. At the inner edge of the left sterno-mastoid muscle, a finger-breadth above its sternal insertion, was a papilla of the size of the head of a pin, having a fine fistulous opening, from which, on deep pressure in the jugular fossa, a drop or two of pus could be squeezed. No trace of the ball could be discovered on most careful palpation; but a cicatricial cord was found to extend from the fistulous opening deeply into the neck. The lungs were free. On probing the fistula, which was done with difficulty, the ball was felt, lying with its upper surface two inches and a half from the outer opening, about one inch below the upper edge of the sternum, very near and somewhat to the right of the trachea, and hence in very close proximity either to the innominate artery or the aorta. Professor Volkmann resolved to dilate the canal by means of laminaria digitata. A very fine piece of tangle was introduced with much trouble; this was removed, much enlarged, at the end of twenty-four hours, and a silver probe of good size was easily introduced. The ball was now very distinctly felt. Dilatation by tangle was continued, until the finger could be introduced. The ball could be just reached with difficulty by the point of the forefinger. It was felt, as above indicated, lying three-quarters of an inch or an inch below the upper level of the chest, somewhat to the right of the trachea. Close in front of it a large artery, apparently the innominate, was felt pulsating; the pulsations were strongly communicated to the ball. The extraction of the ball was very difficult, but was at last effected by means of strongly curved polypus-forceps with sharp teeth. There was no hæmorrhage; the swelling of the neck disappeared under the use of water-dressing; the fistulous opening closed; and the patient, when seen several times afterwards, remained in good health.—*Wiener Medizin. Wochenschr.*, 30 May, 1868.

NÆVUS.—A case is mentioned, in the *New York Medical Record*, of nævus in a child successfully treated by collodion. The patient was two months old, with a gradually enlarging and bright red nævus, three-quarters of an inch in diameter, over the right parietal bone. A drop of collodion was applied daily, and, in three weeks, not only had the nævus entirely disappeared, but a small deep depression had been produced in the skin, probably from the too long continued application of the remedy.

We shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 19TH, 1868.

ELECTRO-THERAPEUTICS.

V.—GALVANO-PUNCTURE.

In the four brief articles on Electro-therapeutics which appeared in this JOURNAL four months ago (July 11th, 18th, 25th, August 1st), Galvano-puncture was barely mentioned. We shall devote this article to its consideration.

Galvano-puncture may be employed with a view to coagulate the blood in aneurisms and varices, to cause the destruction and absorption of tumours and chronic exudations; to produce absorption in dropsical joints; and for the purpose of curing neuralgia. Its employment in the treatment of aneurism and varix depends on the power of a Galvanic current to cause coagulation of the blood. In defibrinated blood, the clot produced by it is due to coagulation of the albumen; but, in living blood, it is, in all probability, also formed by coagulation of fibrine. The solidification of the albumen and the fibrine may be due to the direct action of the Galvanic current on these bodies, or to the influence of substances resulting from the electrical decomposition (Electrolysis) of the saline constituents of the blood; probably it is the result of both.

When both poles of a Galvanic battery are introduced into the blood-vessels of a living animal—as shown by Duncan and Fraser (*Edinburgh Medical Journal*, August 1867)—a clot is formed at each pole. On this account, they recommend that both the negative and positive electrodes should be introduced into the aneurismal sac. On this matter, we differ from these gentlemen. We think that electrodes connected with the *positive pole only*, should be introduced within the blood-vessels. Our reasons for this are the following. The clot produced at the positive pole is dense and firm, that at the negative (zinc) pole is soft and yielding; the gas generated at the positive pole is readily absorbed, that liberated at the negative pole is not so. We, therefore, deprecate the introduction of the negative (zinc) pole into the blood-current, because it produces a soft yielding clot, and gas which is not quickly absorbed. Certainly, the gas is generated in very minute bubbles, which, if carried away by the current of blood, would, in all likelihood, do no harm, even if in considerable quantity; but we would dread the effect of a sudden passage into the circulation of a considerable amount of such gas from a large aneurism, where, as the result of the electrolytic treatment, it might have accumulated. Besides, experience suffices to shew, that aneurisms may be healed when the positive pole only is placed within the sac. The introduction of the negative pole need not, therefore, be considered necessary.

From one to four steel needles, with their shafts coated with vulcanite, their points gilded, and their other ends provided with screws for attaching wires, should be connected with the positive pole of a battery, consisting of four Bunsen's or of six Daniell's elements, of the ordinary size. The number of needles used must vary with the size of the aneurism. According to Fromhold (Meyer's *Electricität in ihrer Anwendung auf practische Medizin*, 1868, p. 399), the strength of the current employed ought to be such as to produce in a minute a coagulum of the size of a bean at the positive pole, when it is passed through white of egg. With the negative pole, a large flat metallic plate ought to be connected; and this should be placed in contact with the skin, at a distance of five or six inches from the aneurism. A layer of moistened sponge should be interposed between the metallic plate and the skin, to prevent undue irritation of the latter. The current may be transmitted for several minutes—at intervals of some days; this, of course, depending on the size and state of the aneurism. The flow of the blood through the aneurism ought, if possible, to be arrested during, and for some time after, the passage of the current. This mode of treating aneurism and varix deserves, on account of the success which has attended it, to be more generally adopted.

The experience of Dr. Althaus (BRITISH MEDICAL JOURNAL, pp. 521 and 534, 1867) serves to shew that many tumours may be successfully treated by Galvano-puncture. He recommends that needles, connected with the negative (zinc) pole only, should be introduced into the tumour; while the positive pole should be in the form of a plate covered with moist sponge placed in contact with the skin. The textures seem to be destroyed, either by the direct action of the Galvanic current, or of the substances produced by the electrolysis. A battery, consisting of fifteen Daniell's elements, should in general be employed.

Galvano-puncture has sometimes been the means of producing absorption of the fluid in dropsical joints when other treatment has failed. Only three or four Daniell's elements should be used in such a case; and the current ought not to be passed through the joint for more than a few minutes at a time. In cases of obstinate sciatica, we think that Galvano-puncture might be tried. Its employment in such cases would be in strict accordance with the fundamental electro-therapeutical principle of treatment *in loco morbi*. When hydrops articuli and neuralgia are treated by *Galvano-puncture*, a battery, consisting of two, or at most three, Daniell's elements, should at first be tried. In the case of sciatica or other neuralgia, hydrops articuli, and some tumours, such as enlarged glands, Galvano-puncture should not be resorted to, until Galvanisation by placing the electrodes *simply in contact* with the skin has had a fair trial.

EXAMINERS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

If the Royal College of Surgeons be not yet fully and completely reformed, it is certainly not for the want of urgent and frequent attentions from its friends and enemies within and without its bounds, which have been perhaps of late a little too frequent, and sometimes unnecessarily seasoned with broad personalities. Meantime, partly with the aid of these stimulants, and sometimes partly in their despite, the College has progressed steadily and uniformly in the right direction. Many are the good deeds which may be set down to the credit of the present Council, and more yet loom in the future. The examinations have been divided. They have been rendered, on the one hand, more practical, by the introduction of instruments, bandages, and preparations; on the other hand, more scientific, by the employment of histological preparations and of microscopes. The College of Surgeons has taken the first step towards the simplification of diplomas and the completeness of each one qualification, by arrangements with the College of Physicians, and by the extension of its own examinations. They have recognised the importance of an obstetric qualification; and they have gone out of their way to help the organisation of the dental profession. Above all, they have set to work to renew the life of their examinations, by renewing more frequently their examiners. Nevertheless, we think that they made last week an unnecessary and undesirable halt in the good path, in declining, by a narrow majority, to pass Mr. Le Gros Clark's resolution, "That it is expedient that the Primary Examinations for the Membership and Fellowship of the College be conducted by examiners specially appointed for that purpose in concert with the President and Vice-Presidents of the College for the time being."

To some extent, we have reason to believe that this was the fault of the wording of the resolution, which does not explain what class of examiners these are who should be appointed, nor how many, nor for what purpose. It was urged that, for the surgical examination, and for the examination in descriptive anatomy, the Council always will, should, and must consist precisely of the class of men best fitted for examiners; and that it would be a great misfortune, if the idea should be accepted, that the accomplished surgeon, fit for a seat in the Council, should be neither acquainted with surgery nor with descriptive anatomy. It was strongly pointed out, also, that the Board of Examiners is by no means constituted as it was when examinerships were held by a life-tenure, and were the appanage of a septuagenarian tenacity of existence. In fact, of the present Board of Examiners, one only, Mr. Skey, has been an examiner for more than the chartered cycle of five years. Of the rest, only one has been an examiner for four years, Mr. Partridge; two for three years, Mr. Quain and Mr. Hilton; three for one year, Mr. Cock, Mr. Solly, and Sir William Fergusson; and three have not yet been a year at work, Mr. John Adams, Mr. Lane, and Mr. Geo. Busk.

This affords a refutation of the old idea of examiners at the College. On the other hand, it must, we think, be accepted as a broad principle, that the qualifications which entitle a man to a seat at the Council are not those which should determine the selection of an examiner in scientific subjects. Every hospital surgeon of a certain public position, of good ability and character, of reputation and intelligence, is entitled to his seat in turn at the governing board of his Council. But an examiner in science must be selected as the best informed man on that subject—the man best acquainted with the actual state of the science in the most elementary as well as the most intricate and difficult parts. There is as much need of such a man for examination in the elements, as progressive science understands and teaches those elements, as for examination for the highest degrees and in the most elaborate details. Since the qualifications are different, and the grounds of selection different, there is an obvious inconsistency in making the area of selection identical. It is no slur on the science of Cambridge, that she has this week expressly declared her intention to seek examiners in biological science from the whole circle of biologists. It is an error to suppose that it would imply a slur on the Council of the College of Surgeons, to apply the like principle to the election of certain examiners in physiology and histology for their degrees. It is objected, that the present difficulty at the College of Surgeons is not to examine sufficiently well in that subject, but to find pupils who can pass an ordinary examination. One-fourth or one-fifth are plucked already; and it is stated, that the teaching of the scientific subjects at the schools is at this moment so far below the standard of examination at the College, that it is difficult to get answers which can pass muster, even to the simplest form of questions. This is a grave subject of reflection to both teachers and students. We have reason to believe that the voting last Thursday was seriously influenced by the results of the recent visits to the examinations disclosing very clearly these facts. But it is obvious that to put the examinations upon the best possible footing is a proceeding which the Council owes to itself and to the profession. It seems to us equally undeniable, that this can only be done by admitting the principle of selecting a certain number of examiners in physiology and general anatomy outside of the Council. We believe that, if Mr. Le Gros Clark's motion had been so clearly worded as to bear that object upon its face, and not to have admitted of a vague and indefinite use, it would have been carried; and, further, we believe that such a motion, clearly worded and defined, can and will be carried at no distant period.

Looking forward as we do to a period when the principles on which a governing body should be elected, shall be quite distinctly separated in men's minds from those on which examiners should be selected, we hope ultimately to see a complete separation in principle between the examiners, who should be officers of the governors or Council, and the Council itself, which, to be truly representative or correctly formed, should certainly not be confined to hospital or pure surgeons, but should include a representation of the great body of Fellows who are engaged in what is called general practice, but who have fully as much claim to be adequately represented in the governing body as any other class, and are quite as competent for the task.

REPRESENTATION IN THE MEDICAL COUNCIL OF THE SCOTCH UNIVERSITIES.

UNDER the fourth section of the Medical Act, one of the persons to constitute the General Council of Medical Education and Registration of the United Kingdom, established by virtue of the provisions of that Act, was to be a person chosen from time to time by the University of Edinburgh and the two Universities of Aberdeen collectively; and, by the fifth section of the Act, it was provided that, if the Universities of Edinburgh and Aberdeen should not be able to agree upon some one person to represent them in the Council, it should be lawful for each one of them to select one person; and thereupon it should be lawful for Her Majesty, with the advice of her Privy Council, to appoint one of the persons so selected to be a member of the said Council for the said Universities. In the year 1858, the University of Edinburgh and the two Universities of Aberdeen collectively chose Professor Syme of Edinburgh to be their representative in the General Council for the term of five years; and, again, in the year 1863, they collectively chose Mr. Syme to be their representative for the further term of five years. The two Universities of Aberdeen have, since the passing of the Act, been consolidated and united into one University, the University of Aberdeen. Professor Syme, on the 19th of October, 1868, ceased, by lapse of time, to be a member of the said General Council; whereupon the said Universities of Edinburgh and Aberdeen have not been able to agree upon the one person to represent them in the said General Council; and, in pursuance of the fifth section of the Act above mentioned, the University of Edinburgh has selected Professor Syme, and the University of Aberdeen has selected John Macrobin, M.D., Professor of the Practice of Medicine in the University of Aberdeen, and Dean of the Medical Faculty; and they submitted the two names to Her Majesty in Council, whereupon Her Majesty, "by and with the advice of her Privy Council," has appointed Dr. John Macrobin, Aberdeen, for the term of five years from the 9th of December.

This decision, which lay practically with the Home Secretary, is very much and widely regretted. It is freely attributed to purely political motives. But, granting that it may arise from the feeling to which we should prefer to attribute it, and in which we should sympathise—that, an Edinburgh professor having represented the joint Universities for a long period, it was fair that an Aberdeen professor should have the preference, now that a difference of opinion was manifested between the Universities—it must yet be remembered that Mr. Syme is at this time performing a most important public duty, which the Council, during its recess, had entrusted to him as Chairman of the Committee on Medical Education; and, both for this reason and because he is so eminently a representative man in and from Scotland, his loss will be deeply felt by the Council, and is much to be regretted. Whether one agreed or not with Mr. Syme, it was impossible not to admire his honesty and clearness of speech and opinion. He united with firmness, honesty, and sagacity, the great merit of remarkable brevity and conciseness of speech, which he showed to be compatible with great and useful influence. Such an example was sadly needed, and most usefully contrasted with the overwhelming and costly loquacity of some of his colleagues.

REPRESENTATION OF PROFESSIONS IN PARLIAMENT.

We call attention to a report, which we publish elsewhere, of a plan of representation broached by Mr. Thomas Hare, because it is a subject in which our profession is much interested. This plan aims at providing a mode of representation of sections of the public, such as professions, now excluded from Parliamentary representation by the entirely local character of the existing representation. The adoption of some such addition to our present representation commends itself as a matter of principle; and is entertained by persons sufficiently numerous and influential to make it worthy the attention of our profession and of the Association.

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The Scholfield Convalescent Fund has been established for the purpose of assisting patients on their discharge from the Doncaster Infirmary and Dispensary, to which the late Dr. Scholfield was Physician, as a tribute of respect to his memory. Upwards of £1000 has already been subscribed; and, upon the completion of the fund, the names of all the subscribers are to be engrossed on vellum and presented to the widow. An influential committee has been formed (of which the Senior Physician and Senior Surgeon of the Infirmary and Dispensary are members *ex officio*), and suitable rules prepared; one notable feature of which is, that the management and distribution of the Fund will be unattended with expense.

THE PREVENTION OF CONTAGIOUS DISEASES.

Mr. John W. Trotter, Assistant-Surgeon Coldstream Guards, Windsor, writes to us:—"It may interest some of your readers to have the opportunity of making a comparison between the amount of enthetic diseases arising among an equal number of men in two stations, in one of which the Contagious Diseases Act is applied, and the other where it is not. The period of comparison comprises three months in London, where the Act is not in operation; and three months at Windsor, where it has been lately introduced. The larger number of admissions in November arose from an influx of strangers during the Windsor Fair—a fact also observed by the superintendent officer, who informed me that, during the three months noted, eighty-eight women had been examined, of whom twenty-five had been sent to hospital suffering from gonorrhœa, and nine from syphilitic sores. In the table for August, ten of primary sores, and four of gonorrhœa, were admitted on September 2nd, on an inspection of the men after arrival at Windsor, and before they were allowed to leave barracks.

LONDON.			WINDSOR.		
	Primary Sores.	Gonorrhœa.		Primary Sores.	Gonorrhœa.
June	13	9	September	3	4
July	19	8	October	4	3
August	33	19	November	9	0
Total	65	36	Total	16	7

These figures speak for themselves."

RAILWAY COMPENSATION CASES.

The *Solicitors' Journal* notices our complaint that the twenty-sixth section of the Railway Regulation Act, authorising the appointment of a medical arbitrator by the judges to assist in settling damages in railway compensation cases, has not yet been put in force, although, in one or two recent cases, it might have been applied with advantage. The writer in the *Journal* hardly appreciates, we think, the objects we have in view. Were such an arbitrator appointed, he would become virtually a skilled assessor of the court in that case; and, if not technically, certainly in the popular sense, an *amicus curiæ*. Such appointments would save the costs of trial, by avoiding a trial at all, in the greater number of cases. We are very glad that our legal contemporary's notice has been attracted to the subject; and we will ask it, while passing over any verbally untechnical phrase which we may have used, to urge upon the attention of the judges this provision of the Act, which Mr. Justice Hannen seems to us regrettably to have overlooked in the case in question. The judges have complained of, and we have all regretted, the unregulated conflict of medical evidence under the old law. The new Act enables them to avoid or remedy it, and puts the power into their sole hands. This power they neglect to use. Either their former criticisms were unnecessary, or the remedy should now be applied; unless, indeed, they have allowed an Act to be passed without representing that it was useless for the purpose for which it was intended. We pointed out in time what we considered to be the defects of the provision. Meantime, we wish to obtain the attention of the judges and of the legal profession to this clause. If good, it should be employed; if bad, it should have been amended before passing; or, at any rate, let us now get good legal authority to aid in its speedy amendment. The present state of things is discreditable to both professions, and unfair to suitors, who are put to unnecessary costs, and are less sure than they might be of substantial justice.

MEDICAL VACANCIES AT ST. BARTHOLOMEW'S.

The untimely decease of Dr. Edwards, of St. Bartholomew's, who has for some time been suffering in health, although not more than 57 years of age, will lead once more to promotion and election on the medical side at St. Bartholomew's Hospital. The promotion of physicians here has been singularly rapid, owing to the losses which the hospital has had to deplore in the ranks of its senior physicians, in quick succession, and at early ages. Dr. Burrowes retired from the hospital to give himself up to active private practice, somewhat before the expiration of the full period of office. Between Dr. Black and Dr. Harris, there have been heavy and unexpected losses. Dr. Baly, Dr. Kirkes, Dr. Martin, and Dr. Edwards, have been removed by death or serious illness in the course of a very few years. Dr. Andrew will become one of the Physicians to in-patients. Dr. Southey will become Senior Assistant, and will probably attain to Physiciancy in another year in due course. Dr. Dyce Duckworth is candidate for the vacant Assistant-Physicianship; and his services as Tutor to the school, and his reputation as a working physician, are such as to give him strong claims for the appointment.

DEATH FROM CHLOROFORM.

Another case of death by chloroform is reported in London. A druggist, who had been in the habit of taking chloroform to relieve pain in the face, was found dead in the evening with a handkerchief in his right hand and an empty phial, which had contained chloroform. The jury returned the verdict "that the disease killed himself by misadventure."

A REGISTRATION OF DISEASES.

In the report of the medical officer of Paddington just issued, the necessity for a registration of diseases treated at public institutions, already frequently brought under notice of the Poor-law and other authorities, is urged. Without this, says Dr. Hardwicke, no system of sanitary organisation can be carried out for checking the spread of contagious maladies. It would, he thinks, be for the benefit of the community that all qualified medical men in the district should be called upon to register every case of epidemic disease, and to act with authority and promptitude in cases of epidemic maladies which they consider dangerous to public health. In the present imperfect organisation, unfortunately, the medical officer of health has no certain cognisance of the locality of dangerous spreading diseases until he is informed by the death in the weekly returns of the Registrar General for his district, when it is too late to institute measures for disinfection. By judicious and well devised regulations with the medical men, it is in the power of the local authority, or of the imperial legislature, to stamp out the worst forms of contagion. Compulsory vaccination has become recognised as one means; and it is equally reasonable that means for isolation, ventilation, and disinfection should be carried out in cases of typhus, typhoid, scarlet fevers, and any other forms of contagious disease endangering the public health.

CHRISTMAS IN THE LONDON HOSPITALS.

LAST year, we ventured to draw atrention to the subject of Christmas in hospitals; and suggested that, to prevent as much as possible patients leaving the hospital in an unfit state to join in the festivities of the season, and also to reduce as much as possible the regrets at remaining prisoners felt by those too ill or too sensible to leave, some attempt should be made by the different hospitals to render Christmas-day as cheerful as possible under the circumstances. The festive plum-pudding is allowed at nearly all the hospitals; but, in most, this is the only novelty offered, and, of course, the patients take advantage of it accordingly, unless peremptorily refused by the physician—a difficult task. In too many cases, the dire effects of such a Christmas treat are speedily shown in relapses or retarded convalescence, especially in the medical wards. Still this is better than that the patients should, against the warning of the physician or surgeon, leave the hospital uncured, and return as bad as ever, after a week or fortnight's dissipation. Would it not, however, be better to avoid both these difficulties as much as possible, and organise in every hospital some amusement for Christmas in which all those patients who are able could take part, and for which they might feel an interest in preparing? A concert or Christmas-tree, with a useful gift for each patient, or some other profitable amusement, would, we are sure, prevent much of the mischief which never fails to accompany Christmas, and at the same time relieve the monotony of hospital life, so irksome and tedious to convalescents. Many patients would gladly forego their Christmas dinner, if any such attempt were made for their amusement. Great care would necessarily be required that dying patients should remain undisturbed. This difficulty, which is one of much delicacy, can generally be obviated by appropriating the board or convalescent room, or a ward, as the case may be, for the festivities of the evening. Several of the hospitals intend moving in the direction we have pointed out; and we doubt not that the charitable interested in the object will assist them to carry out their good intentions.

THE TRAINING OF NURSES.

WE are very glad to receive intimation of the opening this week of two enterprises, having for their object the systematic training of nurses in public hospitals, for subsequent private as well as public service. On Wednesday, a semi-public meeting was held at Edgbaston, Birmingham, in which Dr. Bell Fletcher, Dr. Fleming, and Mr. Gamgee, with other medical, clinical, and lay persons, took part. It was resolved—"That an institution, to be named the Birmingham Institution for Training Nurses, be established in this town; that its object be to provide trained nurses for hospitals and private families; that its constitution be unsectarian; that, as it is certain that nurses can be efficiently trained in a public hospital only, the probationers of this institution be taught in the wards of the General, Queen's, and Children's Hospitals, their respective Boards of Management having consented to afford facilities for this purpose." It was also resolved—"That a suitable house be provided as a home for the nurses and probationers, to be under the management of a lady superintendent."—A like undertaking, which has already been in active operation for some time in London, the British Nurses' Training Association, and which has probationers at St. Mary's Hospital, London, Charing Cross Hospital, and elsewhere, also inaugurated a home for the nurses and probationers in Cambridge Place, Paddington, close to St. Mary's Hospital, on Friday last.

THE RADCLIFFE TRAVELLING FELLOWSHIP.

WE desire to call the attention of our readers to the notice in our University Intelligence of the Examination for the above Fellowship. As this is one of the richest prizes offered by the University of Oxford for proficiency in Medical Science, and since the conditions of election for next year have undergome some modification, by the removal of certain checks or safeguards which, hedging round the foundation with a view of protecting, operate too often as narrowing and limiting influences on its sphere of action; it may be useful to compare the former regulations with those now in force, and, at the same time, to bring out in clearer relief the value of the prize to the medical student. Dr. Radcliffe charged his estate with a sum of £600 *per annum*, to be paid to "two persons, to be chosen out of the University of Oxford, when they are Masters of Arts, and entered on the physic line, for the maintenance of the said two persons for the space of ten years, and no longer, the half of which time, at least, they are to travel in parts beyond sea for their better improvement." Omitting several alterations in the foundation, subsequent to the first election in 1715, we may note that since 1854 one Fellowship of the value of £200, and tenable for three years, has been filled up each year. Candidates must have passed all the examinations required by the University for the B.A. degree, and must, in addition to other restrictions, have been placed in the first class in the School of Physical Science. In 1869, the competition will be open to all candidates who, as before, have passed all examinations necessary for the B.A. degree, and have been placed in the first class in *any one* of the Public Examinations of the University, or have gained some University Prize or Scholarship open to general competition. The emolument and tenure will be the same as at present. Each candidate must declare that he intends to graduate in medicine in the University, and to travel abroad with a view to his improvement. The Examination is in subjects connected with Medical Science, and any Fellow forfeits his Fellowship by spending more than eighteen months in the United Kingdom. The restriction as regards a first class in the Physical Science Schools is thus removed in virtue of a recommendation of the University Commissioners, who limited the operation of such restriction to ten years from the passing of their ordinance, wisely judging that the progress of physical science in the University would make such a limitation no longer necessary; yet, on the other hand, exacting with equal prudence a first class in any school, as a guarantee that the candidate, having passed through Arts, had received the mental training which would render him all the more fit to enter on the special studies of his profession. The valuable aid afforded by this foundation to the student of medicine abroad needs no comment. We can only hope that it may be to many a scientific student not only a reward for past labours, but a stimulus to fresh exertions in the wide field of medical science.

PRUDHOE MEMORIAL CONVALESCENT HOME, WHITLEY, NORTHUMBERLAND.

THE Building Committee have received an additional contribution of £1000 from Sir W. G. Armstrong, C.B., thereby making his total subscription £2000. This sum was offered in March, 1866, upon the condition that a further sum of £1000 was raised by existing contributors doubling or increasing the sums they had already given, and it was when Sir William was apprised that this sum had been obtained, that he, with his accustomed generosity, at once handed the amount to the Treasurer. Notwithstanding the numerous and most bountiful subscriptions, there is still a deficiency, which it is greatly to be desired may soon be forthcoming, in order that the project may be completed in the manner contemplated.

MEDICAL AND SURGICAL EXAMINATIONS AT CAMBRIDGE.

THE University of Cambridge has this week passed a grace, removing the restriction by which examiners for the degree of Bachelor of Medicine and Surgery are to be chosen from the list of Members of the Senate. The grace was carried by 57 to 15, on the 10th instant, and it is now open to the University to select men of eminence, whether they be members of the University of Cambridge or not, which is clearly a gain, and an example to Lincoln's Inn Fields. The notice of an opposition, sent round the University the evening before the voting, drew from Professor Humphry a printed note in reply, in which he points out that "It is really very desirable that in the selection of Examiners for Medical and Surgical Degree Examinations we should not be restricted to Members of the Senate or even of the University; indeed, the abandonment of this restriction seems to me to be essential if we are to give proper efficiency to our Examinations (especially for the Surgical Degree) and to maintain that character and prestige for our Medical and Surgical Degrees which they ought to have. The graces, therefore, would not introduce any innovation, but would simply have the effect of bringing the laws relating to Medical and Surgical Examinations and the Board of Medical studies into conformity, in this respect, with those for other Sciences and Degrees, and for the Triposes." The majority shows that the greater number of our body are open to liberal conviction.

THE CLINICAL SOCIETY OF LONDON.

At the Clinical Society the other evening, a lengthened and excellent communication was read by Dr. Beigel on Epilepsy, in which, after reviewing most of the theories which have been advanced as to the nature of this disease, the author would have entered upon a disquisition on the influence of hereditary predisposition, had he not been timely called to order by the Treasurer. Although he had already exceeded by ten minutes the time limited by the society's rules, he had not yet commenced the narration of his case. Most of those present, we believe, were inclined to support Dr. Greenhow in the course which he took, recognising the fact that, from the moment that the Clinical Society quits its special province, that of reporting and discussing cases, it will no longer have any right to exist.

THE MEDICAL OFFICERSHIP OF ST. PANCRAS.

The medical officership of St. Pancras has been filled by the vestry with the amount of jobbing customary amongst parochial authorities. Amongst the candidates was a sanitarian no less eminent than Mr. J. Netten Radcliffe, Honorary Secretary of the Epidemiological Society. To perpetrate a local job, the vestry decided, in the face of the Act of Parliament, that a candidate must possess a "double diploma," and threw Mr. Radcliffe out of the competition. Fortunately, this job has attracted an unusual amount of public attention, and there is reason to hope that the indignation which it has excited will strengthen the hands of those who wish to see the appointment of medical officers of health put upon a better footing altogether. This will be one of the subjects for consideration of the Royal Sanitary Commission, which the British Medical and Social Science Association have recently succeeded in inducing the Government to appoint.

THE RECENT DECISION AT THE COLLEGE OF SURGEONS.

At the last meeting of the Council, the discussion on Mr. Le Gros Clark's motion came on, that it was expedient that the Primary Examinations for the Fellowship and Membership of the College be conducted by Examiners specially appointed for that purpose, in concert with the President and Vice-President. The motion was seconded by Mr. Hancock, and received the support of Messrs. Prescott Hewett, Charles Hawkins, James and Thomas Paget, Hancock, Curling, Clark, Simon, and Holden. The gentlemen who opposed Mr. Clark's motion were, Messrs. Cock and Solly, Vice-Presidents; Hilton, Lane, Sir William Fergusson, Adams, and Busk, members of the Court of Examiners; and Messrs. Swan, South, Smith, and Birkett. The names of those voting for and against the motion were taken down, on the demand to that effect by Messrs. Hawkins and Hewett. It cannot escape observation, that the voters on the one side include the whole of the Board of Examiners, who, without exception, supported the side of privilege. This, it may be supported, is a good illustration of the doctrine of unconscious bias, such as is frequently observed in voting on similar questions in all assemblies. On the other hand, it is alleged that the examiners know best how much at the present moment the standard of examination at the College is superior to the standard of instruction amongst the candidates; and that such support as they received amongst the Council was due to the recent opportunities afforded to councillors of judging for themselves by being present at the examinations, of which opportunity few availed themselves. While giving due weight to these considerations, we have stated elsewhere our reasons for holding that this is not the ground on which the issue raised by Mr. Le Gros Clark's motion must be ultimately settled, and that the present decision is one which need not be considered as at all decisive—unless, indeed, it be accepted as a sure augury of the triumph of the principle of that motion.

THE BUSINESS OF THE PATHOLOGICAL SOCIETY.

At the Pathological Society, on Tuesday night, a conversation occurred of some importance as to the conduct of the business of the Society. Dr. Legge had exhibited a specimen of axillary aneurism of large size, in which no treatment appeared to have been attempted. Mr. Heath rose to offer a few remarks on the results which might be expected to follow in the treatment of such cases, but was at once informed by the President that the rules of the Society did not allow of the treatment being discussed. Mr. Heath replied that in a specimen he was about to bring forward, the treatment formed an important and interesting item, and he should like to know in how far he would be allowed to allude to it. He protested against the system pursued of hurrying over the specimens of the evening instead of making a selection and encouraging discussion, and noticed that the real work of the meeting had been delayed a considerable time owing to the time taken up by reading the reports from the Morbid Growths Committee, one of which was of too elaborate a nature to be understood unless by careful study. The President said it was one question whether the constitution of the Society should not be changed, but this was for the Council to decide. He himself approved of a selection. Therapeutics could only be in the shortest way noticed, but treatment in a controversial way must be discouraged. He referred to Bye-law LIV of the rules of the Society, in which it is stated that, "In the remarks made in reference to specimens exhibited, all discussions on abstract points shall be, as far as possible, avoided; and the topics of diagnosis and treatment shall not be introduced further than is necessary to illustrate the pathology of the subject." Mr. Simon's ruling was unquestionably correct and necessary. But, on the other hand, it is felt by many—probably by Mr. Simon as much as any—that the time has come when it is desirable to consider what can be done to limit the number and to increase the interest of the communications, and of the discussions thereupon. Too many specimens are shown in one night, and a large number of them have really little pathological value; and it is often only by reference to surgical and therapeutical details that an extraneous significance is given to them. It is desirable to encourage discussion, and to weed the specimens shown. It will be useful for the Council to consider how this can best be done; and we believe that it is intended formally to bring the subject under discussion. The following eminent men are nominated as foreign members of the Pathological Society: MM. Claude Bernard and Louis of Paris, Virchow of Berlin, and Billroth of Vienna, celebrated as pathologists; and MM. Helmholtz, Brück, and Ludwig, who have rendered eminent services to pathological science by their physiological researches.

SCOTLAND.

A bust of Professor Christison is, we hear, likely to be erected in the University of Edinburgh.

Dr. Stevenson Macadam, Lecturer on Chemistry, Surgeons' Hall, Edinburgh, has made arrangements to take his students to the principal chemical manufactories for practical illustration of his lectures. He lately accompanied his class to the Armiston coal-field and the water-collecting district in the Pentland Hills.

EDINBURGH UNIVERSITY CONSERVATIVE CLUB.

The postponed general meeting of this Club was held in the Hall, No. 5, St. Andrew Square, on Saturday, the 12th inst., at half-past two o'clock, for the election of office-bearers and the transaction of general business. Mr. W. T. Dickson, M.A., was elected President; and the Earl of Haddington, Honorary President.

THE ABERDEEN AND GLASGOW ELECTION PETITION.

A PETITION is to be presented against the return of Mr. Moncreiff for the Aberdeen and Glasgow Universities. The petition is to charge bribery—the charge being based upon the action of the Free and United Presbyterian Church Associations, which paid the registration-fee for members of their denominations, interested in the return of Mr. Moncreiff. A sub-committee was appointed, which will immediately take steps to present the petition. It will soon, therefore, be seen, whether the payment of registration-fees by associations on behalf of the electors will invalidate an election. It is much to be regretted, that the return of the first members of Parliament for these Universities should be opposed on the ground of bribery.

THE ROYAL INFIRMARY OF ABERDEEN AND HOMŒOPATHY.

AT the meeting of managers, on December 14th, the question of the annual re-election of the medical staff came on in due course, when the decision had to be made in reference to the protests of the medical officers against the continuance in office of Dr. Reith, on the score of Homœopathic practices. Mr. Carnie stated that there had been lodged with him resolutions of the Buchan Medical Society, of the Garioch Medical Association, also a letter from Dr. Reith, of the 11th of December—all of which had been circulated amongst the managers. The resolutions from the Medical Societies were condemnatory of the practice of Homœopathy, and protesting against its introduction into the Infirmary. The Provost submitted the following resolution:—"The Managers having had under consideration the correspondence between Drs. Harvey, Smith, and Reith, and also the report of the two consulting physicians thereon, consider it to be for the best interests of this Institution to be guided by that report, and not to permit the use of Homœopathic medicines in the Infirmary. Further, having regard to the correspondence, and various publications which have been furnished by these medical gentlemen to the Managers, as well as to the almost unanimously expressed opinion of the medical men of the city and district, which is entirely adverse to the practice of homœopathy, they do not consider it advisable to give countenance to it within the Institution. The Provost said he would take upon himself to announce that the medical officers had intimated, but did not wish the letter brought forward now by way of threat; that, "whereas, homœopathy had not received the sanction of the medical profession, and whereas, it is, in their opinion, both unsound and irrational, they entertained the conviction that it would not be honest in them to remain connected with an institution in which that system is recognised," and if Dr. Reith were re-elected, they would all feel bound to resign. In the course of a long discussion which followed, it seemed to be generally felt that this clear and unanimous expression of opinion, on the part of the staff, left the governors no alternative. The Provost's resolution was carried without a division, and the Physicians and Surgeons of the Infirmary were re-elected with the exception of Dr. Reith. The clerk was directed to advertise the vacancy in the staff, Mr. Webster dissenting, and it being understood that other dissents could be entered afterwards. The medical staff of the Aberdeen Infirmary have taken a firm, clear, and judicious course, which has satisfactorily settled the question raised by the introduction of homœopathic practice into the Infirmary by Dr. Reith. It will be seen from the letter which Dr. Reith addresses to us to-day, that he, in fact, adheres to that practice. The staff, therefore, unanimously declined to act professionally with a colleague who has accepted a position which was incompatible with their common professional action, and which must have proved injurious to the school, and mischievous to the institution. Dr. Reith has therefore ceased to be a physician to this Infirmary.

PROPOSED WEST OF SCOTLAND SEASIDE CONVALESCENT HOME.

WE are glad to learn that active exertions are being made to carry out the excellent plan of Miss Clugston, to erect a convalescent home at Dunoon. At a meeting of parties interested in the movement, held on Tuesday week, Miss Clugston read a paper explanative of the system and great value of such charities. A committee was then appointed to assist in promoting the object, including a number of foremen of works throughout the district. The workmen in Glasgow and neighbouring towns have shewn their national independence, and already subscribed a large sum of money towards the object. We cannot but wish the undertaking and its promoters all success.

GLASGOW MATERNITY HOSPITAL.

AT a meeting of the directors of this hospital held on the 15th inst., the following gentlemen were elected medical officers:—*Consulting Physician*—Andrew Anderson, M.D. *Consulting Surgeon*—George Buchanan, M.D., Professor of Anatomy in Anderson's University. *Physicians-Accoucheur*—J. G. Wilson, M.D., Professor of Midwifery, Anderson's University; and R. D. Tannahill, M.D.

MR. CARLYLE AND THE UNIVERSITY STUDENTS OF EDINBURGH.

A LETTER appears in the *Scotsman* of Wednesday week, sent to his committee by Mr. Carlyle, late Lord Rector of the University of Edinburgh, declining, in characteristic style, the request of the students to deliver a valedictory address on ceasing to become Lord Rector. "Bid them," he says, "in my name, if they still love me, fight the good fight, and quit themselves like men, in the warfare to which *they* are as if conscript and consecrated, and which lies ahead."

EXTENSION OF THE EDINBURGH UNIVERSITY BUILDINGS IN NORTH COLLEGE STREET.

THE *Scotsman* understands that a large and influential meeting of citizens interested in the movement for additional accommodation for University purposes was held within the University Court Room, on Friday, Dec. 11. A large provisional committee was appointed, to take the requisite steps for carrying out the views of the meeting in favour of the object.

IRELAND.

FUNERAL OF DR. GRATTAN-GUINNESS.

ON Saturday morning, the 12th of December, the mortal remains of this gentleman, whose lamented decease we recorded in our last, were consigned to the family buring place in Mount Jerome Cemetery. The funeral was very large; and was attended by the majority of the medical men in Dublin, the procession of carriages reaching nearly to the length of an English mile. The Presidents of the Colleges of Physicians and Surgeons, and many other officials took this occasion of showing their respect for the deceased; and, according to the time honoured custom of the College of Physicians, the Fellows of that body with their mace-bearer, attended in their Corporate capacity.

THE LORD MAYOR OF DUBLIN FOR 1869.

SIR JOHN GRAY, M.D., M.P., having declined the honour of the Metropolitan mayoralty, a special meeting of the Dublin Town Council was held on the 11th instant, when Sir William Carroll, the out-going Lord Mayor, was re-elected. That the same individual should fill the civic chair for two successive years is an extremely rare occurrence in Dublin.

THE SURGICAL SOCIETY OF IRELAND.

THE opening meeting for 1868-9 was held in the Albert Hall of the Royal College of Surgeons, on the evening of Friday the 11th instant; the chair was occupied by Mr. Porter, President of the College, and there was a large attendance of the profession. The Chairman delivered a brief address, reviewing the work of the Society for some years past; referring to several of its most eminent members by name, and particularly expressing regret at the recent deaths of Drs. Hardy and Stronge. He also acknowledged, in complimentary terms, the services of the Honorary Secretaries, Dr. Benson and Mr. B. W. Richardson. Communications were then made to the Society by Messrs. Morgan, Hargraves, Stapleton, Croly, Kincaid, and Dr. Hewitt.

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

ON THE MEANS OF MANIFESTING PUBLIC OPINION IN THE ELECTION OF REPRESENTATIVES TO PARLIAMENT. BY THOMAS HARE, ESQ.

MR. HARE considered the pause after an election a fitting time for considering the lessons to be learnt from it. Dissatisfaction was general at the exclusion, by individual localities, of men for whom the nation demanded seats in Parliament. This led at once to the reflection how this could be prevented; and the question naturally arose, whether it was necessary to confine within the limits of a certain district the power of electing or rejecting men of acknowledged eminence and national importance. The present system was liable also to other abuses. A knowledge of the temper of a certain locality taught wire-workers what cry must be raised to insure success, and what passions must be stirred up to overthrow a rival candidate. These abuses would be swept away by enlarging the area of the constituency. He had repeatedly advocated the abolition of all limits, so that every view and interest might be sure of being represented by the combination of individual votes collected from every part of the kingdom. At present their individual opinions and preferences were swallowed up by a merciless majority. One object of the present paper was to put forward a tentative plan suggested to him by Mr. Hastings, the General Secretary of the Association. Since it was generally agreed that before long the seats would be taken away from the smaller boroughs, it was proposed that fifty seats so obtained should be thrown open to the whole country, each voter to have a national in addition to his local vote. Their votes should then be placed on a general list, and then, after ascertaining the quotient of the general votes divided by fifty, each one of the fifty candidates who obtained such quotient, or who approached nearest, should be returned. The names of the small boroughs might be retained, and the representatives might be named the members of the Wells College, of the Thetford College, and so on. This plan opened a favourable opportunity for testing the system, leaving it easy to advance or recede according to the result. If the system prospered, what was corrupt and base would be possible to be isolated, and separated from honesty and justice instead of tainting the whole system. This expansion of choice from its present narrow limits would be highly satisfactory to the individual voter, and the progress of political education would be incalculable.

Mr. HASTINGS thought the late disastrous campaign had prepared men's minds for acknowledging the necessity of some new system. The scheme presented by Mr. Hare was capable of being adopted tentatively; and the disfranchisement of small boroughs which, it was generally agreed, must soon take place, would offer a favourable opportunity for trying this plan, without disturbing the general system. Under Mr. Hare's plan such men as Mr. Gladstone, Mr. J. S. Mill, and Mr. Austin Bruce, whom the nation demanded to see in Parliament, would not be thrown upon the mercies of certain localities which might happen not to appreciate their ideas which found favour with the majority of the nation. Intellect and labour would also find place in Parliament instead of simply wealth and capital as at present. He further recommended that the national vote should be taken after the close of the local polls, so that the nation might secure the return of any eminent man who had been rejected.

Mr. TORRENS, M.P. and Mr. HURST opposed the scheme.

Dr. STALLARD was greatly in favour of Mr. Hare's scheme, believing himself at present to be the worst represented man in the kingdom. Every time that he had exercised the franchise he had found himself either in an immense majority or an immense minority, so that his individual vote was of no account. Under Mr. Hare's system he would be able to vote in such a manner that his vote would benefit what he had most at heart, the advancement of his profession. There were one or two medical men in Parliament; but, taken as a body, they were nothing like adequately represented. He believed the country also would be benefited by the admission of more medical men in Parliament, since so many bills came before them in which sanitary knowledge would be of the highest use. He differed from Mr. Hare and Mr. Hastings, in that he would limit the area of their general votes to counties, and not extend them to the whole country, as he considered local influence ought to be preserved. Dr. Stallard also advocated the adoption of some plan, by which large constituencies might be more commensurately represented, and the periodic adjusting of the representation to the increase or decrease of population.

Mr. HOLLAND admired the plan because it would render it impossible for local ill-will to oust an eminent man from Parliament. A certain quota of favourable votes would entitle to a seat, no matter how many were adverse. It would largely benefit the medical profession to which he belonged; and the country would, he believed, also be benefited by the introduction of sanitary improvements. He had never yet had a chance of voting for a man he cared at all about. But by this plan he might vote for any man he admired, irrespective of locality.

Mr. HARE'S paper was ordered to be printed and circulated, and the meeting closed with a vote of thanks to the Chairman.

ASSOCIATION INTELLIGENCE.

GLOUCESTERSHIRE BRANCH.

THE first Meeting of this Branch will be held on Thursday, Jan. 7th, 1869, at the Bell Hotel, Gloucester, at 3.30 P.M., when Dr. EVANS will deliver an Inaugural Address.

The business of the Meeting will be to consider and determine the Rules of the Branch and the Election of the Officers and Council of the Branch for the calendar year 1869; to elect Members of the Branch as Members of Council of the Parent Association; to propose new Members of the Association and Branch; to transact other necessary business; and to discuss such subjects connected with the interests of the Branch and of the profession as may be brought before the meeting.

Members having communications for the meeting, are requested to give immediate notice to the Honorary Secretary.

The Dinner will be held at the Bell Hotel at 5.30 punctually. Dinner tickets, 7s. 6d. each. It is particularly requested that the prepaid notification sent to each member of the Branch be returned, without delay, to the Secretary, in order that the necessary arrangements for the comfort and convenience of the members may be ensured.

ALFRED FLEISCHMANN, *Honorary Secretary*, Cheltenham.

READING BRANCH: SPECIAL GENERAL MEETING.

A SPECIAL General Meeting of the Reading Branch was held at the Royal Berkshire Hospital, on Wednesday, Dec. 9th, at 7 P.M.; G. H. DAVIS, Esq., President-elect, in the chair.

Representation of the Profession in the Medical Council.—It was proposed by Mr. MAY, seconded by Dr. WOODHOUSE, and carried unanimously—"That, in the opinion of this meeting, it is expedient that the medical profession be directly represented in the General Medical Council."

It was proposed by Mr. HARRINSON, seconded by Mr. WALFORD, and carried unanimously—"That this meeting cordially approves of the course taken by the Committee of Council; and will be prepared to aid in the steps they may think it needful to adopt to carry the same into effect."

SHROPSHIRE SCIENTIFIC BRANCH.

THE Annual Meeting of the above Branch was held in the Museum o the Natural History Society, Shrewsbury, on 28th October last, at which there was a large gathering of the members. The proceedings were opened by the President, SAMUEL WOOD, Esq., F.S.A. The minutes of the previous meeting having been read, the Council of the Branch were elected. The representatives to the General Council were next elected. Dr. Oakley was unanimously elected Vice-President for the ensuing year. Eleven new members were balloted for and elected.

The PRESIDENT then read an able and interesting address, at the conclusion of which a vote of thanks was moved, and a request that he would have it published in a separate form. The President replied that he was in the hands of the meeting, but he thought it must first be sent to the JOURNAL, after which he should not object to comply with the flattering compliment which their request conveyed.

A valuable paper "On the Occurrence of Amaurosis long after the injury, in cases of concussion of the spinal marrow by railway and other accidents, illustrated by cases," was then read by T. WHARTON JONES, F.R.S., Professor of Ophthalmic Medicine and Surgery in University College, London, Ophthalmic Surgeon to the Hospital, &c.

A very interesting paper was next read by T. P. BLUNT, F.C.S., on "The importance of the indications afforded by the presence of Ammonia and Nitric Acid in Drinking Water," which he illustrated with some beautiful experiments and tests.

H. J. BUCK, Esq., of Cressage, read a paper on a case of Hermaphrodism in a patient of his who lived to over sixty years of age. Mr. Buck produced a cast taken from the parts after death.

J. D. HARRIES, Esq., next read a paper on a remarkable case of Hernia Cerebri which occurred in his practice. The preparation was exhibited.

Dr. W. NEWMAN, of Stamford, contributed a paper, and also

ALFRED HAVILAND, Esq., of London, sent a valuable paper and illustrated maps, exhibiting the Geographical Distribution of Heart-Disease and Dropsy throughout England and Wales. In this paper Shropshire was marked out as being very free from these complaints; but Shrewsbury stood out badly, having above the average number, arising, as Mr. Haviland surmised, from its defective sanitary arrangements, and river fog in the lower parts of the town, which completely overcame its otherwise healthy character.

Letters regretting unavoidable absence were read from numerous eminent associates, among whom were Sir William Fergusson, Dr. Farr, Erasmus Wilson, Esq., etc.

The dinner took place at the Lion Hotel, and was all that could be desired in *cuisine*, cellar, and waiting. About fifty members and friends sat down, and the result was a meeting that will not soon be forgotten.

METROPOLITAN COUNTIES BRANCH: SPECIAL GENERAL MEETING.

A SPECIAL general meeting of this Branch was held at 37, Soho Square, on Tuesday, December 8th—W. O. MARKHAM, M.D., Vice-President, in the Chair—to consider the recently issued address of the Committee of Council on the Direct Representation of the Profession in the Medical Council.

Dr. SIBSON proposed the first resolution. He said that there was no doubt that the Medical Council had not produced that effect on professional education which ten years ought to have effected. This was the great point to be considered; and much good would be done, if the ultimate good of the profession could be worked. It was evident that the elements constituting the Council counterbalanced each other, although their object was to do all the good that they could. It had been already said, but it was a truth that could not be too often repeated, that the Council was composed mainly of the representatives of those very bodies which themselves required to be organised and controlled by the Council. Hence there must be some failure in the action of this body. At the same time, it would be unjust to say that the members of the Council went thither simply to represent the Universities and Corporations. No doubt they did represent the bodies which sent them, but they also worked for the improvement of medical education and the elevation of the profession. The members of the Council were not only among the most eminent in the profession, but were most thoroughly fitted for their task; and yet the advance in medical education was very much smaller than might have been expected. The Government nominees, no doubt, were a very valuable component part; but they had not sufficient pressure from without, and they were not sufficient in number to counterpoise the representatives of the Universities and Colleges. In what respect had the Council failed? First, the standard of preliminary education was far from being sufficiently high. The matriculation examination of the University of London was good, and not over severe. Many passed it who had no intention of entering a profession. And yet, it was too true, the examinations conducted by the College of Preceptors for the Royal College of Surgeons fell short of that test. Should it be said that the profession was content to take an inferior examination? That was a question which ought to be well considered. Another defect was one which, perhaps, could not be remedied without legislation. In every part of the United Kingdom, students must apply to more than one body before obtaining the minimum double qualification. This pressed hardly on the student, to go through the examinations one after another. A third evil was the want, in several examining boards, of practical tests. It ought to be a principle, that an examination must be practical. In some of the bodies, it was now not practical in medicine and in surgery; the candidates were not taken to the bedside, but only required to answer verbal or written questions. At the beginning of the session, when examinations were not being prepared for, the hospital wards were better attended than at the end. If the medical knowledge of candidates were tested at the bedside, they would frequent the wards day by day. If general representation of the profession could be obtained, there would be, with the Crown nominees, a body of members equal to the representatives of the corporate bodies, and the boards would become the true examining boards of the profession. The question was one that must be taken up by the profession at large. He had seen articles in the BRITISH MEDICAL JOURNAL and in the *Lancet*, and had been struck with the remark, that the profession did not take deep interest in the matter, and that it did not take much interest in the proceedings of the Council. This would be remedied, if there were direct representation. There would then be unity and force of action, and we should not see ten years pass without some valuable results. He moved—

"That the Secretaries be instructed to inform the Chairman of the Committee for promoting the Direct Representation of the Profession in the General Medical Council, that this Branch is prepared to take part with the Committee of Council, with the Committee on Direct Representation, and with the Councils of the various Branches of the Association, in a deputation to the Government, as early in the spring of next year as may be convenient."

Dr. LANKESTER seconded the motion. Many years ago, the general representation of the profession was contended for. There was no fault to be found with the representatives of the Corporations or the Government nominees; but, if any body had a right to be represented, the registered practitioners had it. There would never be a sound system of medical education, so long as the Council was composed of members interested in the examining bodies. He felt that medical education was not what it ought to be. He had hoped that the Medical Council would raise education; it might have done so; but he could not see that it had. By the free expression of the opinion of the medical profession in the Council, the standard might be raised. He thought the present movement right, and wished it success.

Dr. CAMPS objected to a high education for the general practitioner, on the ground that it would render him disinclined for the rough work of practice. He thought that the members of the Council should be entirely elected by the profession.

Dr. BEALE said that it should be remembered that the object was to legislate for the future members of the profession. Men were entering every department with a higher state of education than formerly; and it was a well-known fact, that highly educated medical men would undertake the rough work of general practice—some even, in that position, rendering themselves distinguished in science, and making for themselves European reputations. All teachers of medicine were aware of the defective amount of preliminary education which students often possessed. There was no fear of too high a standard of education. If it were required that all the students should pass an university examination, he would undertake that the teachers would train up at least four-fifths so as to pass. It was a matter of teaching; and it was a great fault, that men who belonged, in fact, to a past age, should be allowed to regulate medical teaching. There was no reason why a well educated man should object to attending the poor in Whitechapel or elsewhere.

Dr. STEWART had always held that a medical man should be so educated as to be qualified for any position. He used to urge his pupils at the Middlesex Hospital to attend the lectures of Mr. Waterhouse on natural history. Very few availed themselves of the opportunity; but all of them got appointments in the East India Company's Service, and did well. He agreed with Dr. Sibson, that the Medical Council had not done all that it should towards forwarding education.

Dr. SIBSON, in reply, said that it was not possible to instruct medical students, unless they had a good preliminary education. The very character of the work demanded this. In reply to Dr. Camps, he said that no one was fitted for country practice unless he were a well educated medical man. A more ruinous scheme than that of forming the Council entirely of members elected by the profession could not be devised. There would then be no security that it would contain the highest men in the profession; and the advantage of the presence of the members connected with the Universities and Colleges would be in danger of being lost. The present proposal was not meant as an introduction of the thin end of the wedge, but as a genuine and final thing.

The resolution was unanimously carried.

Dr. BEALE then proposed—

"That the Secretaries of this Branch be instructed, and that the members in their individual capacity be recommended, to apply to all the members for the metropolis and for the other districts included in the Branch, requesting their support in Parliament for the recognition of the just claims of the general body of the profession."

Dr. CAMPS seconded the motion.

Dr. WALLER LEWIS advised that a plain statement of the case should be drawn up and placed in the hands of members of Parliament.

Dr. SIEVEKING urged that the method of carrying out the representation of the profession should be thoroughly discussed before going to Parliament on the subject. It was desirable to have a general representation of the profession; but the object was not to introduce into the Council any one, but those educated and *élite* men who would improve education.

Dr. SIBSON explained that a plan had been agreed upon by the Committee, by which the election would be conducted by means of voting-papers.

The resolution was carried; and, after a vote of thanks to the Chairman, the meeting was dissolved.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, Nov. 17th, 1868.

John Simon, Esq., F.R.S., President, in the Chair.

A Report was read from the Committee on Mr. Carr Jackson's Tumour of the Lungs. It appeared to answer the description of Virchow's round-celled sarcoma. It was, the Committee thought, an example of periosteal sarcoma.

A Report was also presented on Mr. Pick's case of Sero-Cystic Tumour. It was adenoid complicated with a large cyst.

A Report was read, in addition, on Mr. Heath's case of Tumour of the Face. It was a sarcoma, originating probably from the periosteum.

Mr. Bruce showed several specimens presenting Destructive Changes in the Cartilage of the Knee-joint. In one case, there was a grating sensation during life. After middle life, he had observed the cartilage frequently affected. In one woman, there was yellow degeneration. He was inclined to think the fibrillated changes degenerative, and not ulcerative. The patella seemed to be most frequently affected; probably as it was a sesamoid bone.—Mr. Adams thought the changes mentioned by Mr. Bruce were already well recognised. They accompanied rheumatic arthritis. He did not think the conditions were more frequent in the patella from its being in character a sesamoid bone.—Dr. Green wished to know if there was any particular part of the cartilage more affected than the other; if so, might it not be due to friction?—Mr. Bruce thought so.

Dr. Bristowe showed a specimen with a Diverticulum of the Pericardium. It communicated by a small opening with a cavity under the sternum.

Dr. Church exhibited a specimen of Carcinoma of the Thyroid Body, involving the trachea, from a male, aged 37. He died of dyspnœa. There was a secondary deposit in the liver only.

Dr. Church also brought forward a specimen of Disease of the Mediastinal Glands, from a female, aged 32. The whole mediastinum was full of a white mass. The left pleura and diaphragm were affected; the lung-tissue, however, escaped. The pericardium contained four drachms of a turbid fluid. The cervical and axillary glands, and one mammary gland, were also affected.

Dr. Beigel brought forward an interesting and valuable case of Lepra Tuberosa. The patient, a young man, 23 years of age, was healthy until three years ago, when a little swelling came on in the right side of the neck; it increased very rapidly, and spread over the whole chest, which became covered with nodes of the size of a walnut; similar swellings could be felt in the left axilla and other parts of the skin. His whole body became swollen, and particularly his legs. He gradually sank; and ultimately died on September 7th last. At the *post mortem* examination, the body was found much emaciated; the feet œdematous; the right hand and arm much swollen, pitting deeply; there was a large sloughing ulcer over the right side of the neck, where the original swelling had been opened. The skin over the front of the body, as low as the umbilicus, had a brawny feel; it was irregularly infiltrated, the deposit being accumulated in ill defined nodules here and there. In front of the sternum, the tissues were much thickened and infiltrated, but very friable. The right pleural cavity was filled with milky serum, and the upper lobe of the right lung perfectly solidified by, as it seemed, a cancerous mass; the lower lobe was compressed. The left lung was normal. The heart was half the normal size; the walls of the left ventricle were very much thickened. The spleen and liver were apparently healthy; the left kidney was spotted and mottled at the upper end with some whitish diffused patches, seen on section; the right kidney was healthy. The glands were very much enlarged. The microscopic appearances were very remarkable, in as far as the parts examined—viz., the lungs, skin, liver, and all glands—had undergone the same change, consisting of abundance of connective tissue and the formation of large quantities of round corpuscles, resembling the normal lymph-corpuscles.—The case was referred to the Morbid Growths Committee.

Mr. J. D. Hill showed parts from three resected Knee-joints.

Dr. Payne brought forward a case of Ulceration of the Bronchi and Trachea a little above the bifurcation, taken from a female in St. Mary's Hospital, who suffered from dyspnœa, thought to be laryngeal. The mucous and submucous coats were penetrated, but the cartilage only at one part. There was no evidence of constitutional disease, as syphilis. She died with double basic pneumonia. The ulcers consisted of small cells, of uniform size and shape.—Referred to Committee.

Mr. Wyatt shewed a case of Carcinoma of the Pylorus and Diseased Suprarenal Capsules, taken from a soldier, who, six months before, had enjoyed good health. Mr. Wyatt saw him three months ago, and observed that his skin, but especially round the nipples, was bronzed. He suffered from dyspepsia and constipation. He died with symptoms of dysphagia. After death, cancer and stricture of the pylorus and induration of the suprarenal capsules were found.—Mr. Weeden Cooke hoped it would be referred to the Committee, as it was important to know whether the suprarenal capsules were cancerous or not.—It was accordingly referred to the Committee.

Mr. Weeden Cooke exhibited a large Tumour, weighing two pounds and three-quarters, which he had removed from a patient. It had commenced after an injury received twenty-seven years ago. It lay over the carotid artery, but appeared to dip down to the structures about the artery. It was moveable, and the skin had commenced to ulcerate. It was lobulated, partly gelatinous and partly fleshy. He believed it to be an innocent tumour, which had taken on a malignant character.—Referred to Committee.

Mr. Hulke shewed microscopical specimens illustrative of the Inflammatory Changes which take place in the Optic Nerve.

Dr. Murchison brought forward a case of Cancerous Ulcer of the Stomach, in which an external fistulous opening communicated indirectly, by a large suppurating cavity in the abdomen, with the stomach, where there was a large cancer.

Dr. Murchison also showed a very large Ulcer of the Duodenum, in which were a number of opened arteries, in a man, aged 50, who, two years before death, had copious hæmorrhage, pain after food, etc. Within three months, he had complained of pulmonary symptoms, but not before; and, after death, tubercle was found in both lungs, probably due to infection from the ulcer.

Dr. Moxon shewed a case of Diseased Œsophagus and Larynx, taken from a man. The affection had the appearance of epithelioma. It had entered the trachea, where it had a nodular appearance. In the lower lobe of the left lung were some hard nodules like cancer, which, when examined microscopically, turned out to be epithelial cancer of the lung—a rarity. On section, all these had a large and dilated bronchial tube full of pus in their centre. The question was, had the cancer gravitated from the trachea, and infected the parts below?—The President said that, years ago, a similar case was brought forward where cancer of the kidney had infected the ureter and bladder.—Mr. De Morgan had no doubt that cancer, carried in this way, induced cancer at the part to which carried. He hoped cancer was developed and spread from one tumour. If such were the case, the disease was more hopeful, and affected greatly the treatment. He did not deny, however, that in some there is a tendency to cancer. In answer to Dr. Moxon, he said he believed specific relations to exist in which one set of tissues might be alone affected.

Dr. Moxon exhibited a specimen from a case of Pyæmia, in which an abscess had burst into the left ventricle, and was attempting to burst into the left auricle.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, Nov. 24th, 1868.

Samuel Solly, Esq., F.R.S., President, in the Chair.

ON CERTAIN POINTS IN THE PHYSIOLOGY AND PATHOLOGY OF THE FIFTH PAIR OF CEREBRAL NERVES.

BY JULIUS ALTHAUS, M.D., M.R.C.P.

The author introduced his subject by some remarks on the physiology of cerebral nerves generally, saying that the only two pairs of nerves the function of which was not yet accurately determined were the pneumogastric and the fifth, both of which were endowed with far more complex functions than the rest of their fellows, and also less subject to disease, without simultaneous lesions of important neighbouring organs. We had, therefore, until now, been obliged, with respect to them, to trust almost exclusively to one of the two sources of our knowledge as regards nervous function—namely, the results of vivisections in animals; while the corrective influence of pathological observations had been wanting. Dr. Althaus then gave his reasons for considering the evidence derived from pathological cases, occurring in otherwise healthy adults, superior to that merely deduced from vivisections; and proceeded to give the details of a very curious and, as it appeared, unique case of total loss of function of the whole fifth pair, unaccompanied by any other affection of cerebral or nervous matter, and which could be looked upon, in a certain sense, as a complete physiological dissection of the fifth nerve. The case occurred in an otherwise healthy Australian sheep-farmer, and was due to exposure to cold. There were at first symptoms of inflammation, and afterwards compression and atrophy of the nerve. The case came under the author's care about two years after the commencement of the affection. There were then total loss of muscular sensibility about the face, and a peculiar expression of the features in consequence of it. Vision was obstructed by leucoma of both corneæ; yet the patient suffered much from photophobia, although very little light could penetrate to the retina. An ophthalmoscopic examination of the fundus oculi showed the optic disc, as far as it could be seen, quite normal. The common sensation of the face and scalp was entirely lost in both sides. The sense of temperature was completely absent, and the senses of touch and locality were also lost. The conjunctiva was anæsthetic, the secretion of tears arrested, but there was pathological hypersecretion of conjunctival mucus. The mucous membrane of the nose was quite insensible, and its secretion much augmented. The sense of smell was in no way impaired. The mucous membrane of the mouth, including the tongue, was also anæsthetic. The secretion of saliva was arrested, but the flow of buccal mucus increased. The tongue had been severely bitten, as the patient was not at all aware of biting it whenever he did so. The sense of taste was preserved. The muscles of mastication were paralysed; and the patient complained of a rushing noise in the head, probably due to paralysis of the tensor tympani muscle, which is animated by the minor portion of the fifth nerve. The sense of hearing was normal, and there were no other morbid symptoms. The author therefore concluded that the pathological lesion was confined to the course of the fifth nerve, between the pons Varolii and the Gasserian ganglion. It could not be more peripheral, because not a single fibre of the trifacial nerve had escaped the injury; and it could not be more central, because there was no symptom of disease of the pons. The treatment consisted in the systematic application of the continuous galvanic current. No medicine was given. After three months' treatment the patient was considerably improved in every respect, and his sight so much better that he could again guide himself in the streets, and follow a light occupation. Dr. Althaus concluded his paper with some remarks on various points in the physiology and pathology of the nervous system, which were suggested by the phenomena observed in this case. 1. Alluding to the researches of Magendie and Claude Bernard, who had endeavoured to prove that the olfactory was not the only nerve of smell, but that the fifth had a great deal if not everything to do with it, the author considered his case to prove the contrary. 2. Photophobia in this case had evidently little or nothing to do with the condition of the optic nerve or the retina, but was a neurosis of the corneal branches of the fifth nerve, and was cured by galvanisation. 3. The question whether the sense of taste was dependent upon the glosso-pharyngeal nerve, or upon the lingual branch of the fifth, was one about which the greatest discrepancy existed amongst the best observers. The author thought his case proved that, although the special sensation of taste was due to the glosso-pharyngeal, yet the quickness of its perception was, in the anterior part of the tongue, materially enhanced by a normal condition of the fifth pair. 4. The special kind of nervous influence by which the secretion of the mucous membranes of the eye, nose, and mouth was *excited*, and by which it was *regulated*, had hitherto not been investigated. Ludwig had shown, with regard to salivary secretion, that branches of the fifth were the exciting, and sympathetic fibres the inhibitory, nerves. The author thought his case proved that just the reverse obtained as far as the secretion of conjunctival, nasal, and buccal mucus was concerned; and that for this latter function the sympathetic was exciting, and the trifacial inhibitory. 5. The pathology of tinnitus aurium was obscure. The author believed it to be, if not always, at least frequently, a symptom of neurosis of the fifth nerve. 6. The present case seemed to settle the question as to the precise way in which the continuous galvanic current acted on the nervous centres. Dr. Althaus had always thought that the galvanic impression was reflected from the peripheral branches of the fifth to the base of the brain. This was now proved to be correct; for it appeared that, when the reflex function of the fifth pair was in abeyance, no cerebral symptoms could be produced by the application of a powerful current to the head or face, although the physical relations of the skull, brain, and blood-vessels had not been altered. The transmission of the continuous galvanic current to the brain was therefore effected, not physically, but physiologically, by nervous influence.

After some remarks by the PRESIDENT, who complimented the author on the care bestowed in the observation and narration of the case,

MR. R. B. CARTER would ask Dr. Althaus for information as to the patient suffering from paralysis of the fifth nerve, in whom M. Duchenne de Boulogne had galvanised each facial muscle in succession. He thought that in it there was not such distortion of the facial muscles as existed in Dr. Althaus's patient. The remarks made by Dr. Althaus on photophobia were worth attention; the fact that it was relieved by galvanism was familiar to ophthalmic surgeons. When the fifth nerve was injured, nutrition of the parts supplied by it was suspended or interrupted.

Dr. ANSTIE said that it seemed that apparently opposite conditions were attended by similar lesions of nutrition. He had noticed several cases of neuralgia of the fifth nerve, attended with ulceration of the cornea, excessive lacrymation, excessive secretion from the mucous membranes, photophobia, etc. These were strong facts in favour of the idea that the fifth nerve had an influence on the hair. In his own case, after neuralgia, he had found portions of hair turning grey and afterwards regaining their colour.

Mr. SOELBERG WELLS said that, up to last year, it was believed that the corneal alteration was chiefly due to irritation; that the covering membrane of the cornea, being deprived of its secretions in cases of lesion of the fifth nerve, was thereby rendered more liable to the influences of irritant bodies. But some experiments of Meissner (related in *Henle und Pfeufer's Zeitschrift*) had thrown doubt on the notion. Meissner divided the ophthalmic branch of the fifth nerve in three rabbits; sensation was lost, but the cornea remained clear. It was subsequently found, that the under part of the ophthalmic had escaped division. In another rabbit, a supposed division of the ophthalmic branch did not produce loss of sensation; while this effect was produced in another. In a few days, however, both had ulceration of the cornea. In the first of these rabbits, the outer part of the nerve had escaped division. An interesting case was recorded by Snellen, in which a patient had paralysis of the fifth nerve with complete insensibility of the cornea, slight corneal ulceration, and impairment of sight; and in which a stereopic glass was fitted to the injured eye with good effect.

Mr. SAVORY thought the paper would prove to be one of the most valuable that had been offered to the Society: it was one which gave evidence of careful study and much thought and labour. He must, however, withhold his assent from the explanation given of the increased secretion from the mucous membrane of the mouth. All researches went to shew that the sympathetic was the only vaso-motor nerve. With regard to smell, it was generally agreed among physiologists that the olfactory nerve was the special organ of this sense, but that the fifth nerve kept the nasal membrane in a proper state for the reception of impressions. Both the glosso-pharyngeal and the gustatory nerves were concerned in the sense of taste. When, however, the necessity of the integrity of other parts of the mouth besides the tongue was remembered, it would seem that the sense of taste was not so special as was supposed. Perhaps, after all, special sensation did not depend so much on this or that nerve, as on the organ to which it was distributed. The recent researches on the papillæ of the tongue and on other parts, seemed to shew that nerves were connected with particular organs at the periphery as well as at the centre.

Dr. BROADBENT said that photophobia was generally referred to irritation of the branches of the fifth nerve; but in Dr. Althaus's case it existed with paralysis of that nerve, a fact that seemed opposed to the ordinary explanation. The excessive secretion of mucus from the mouth was a fact of the same kind as the excessive discharge from the cornea; it was not a healthy mucus, but was changed in character.

Dr. RUSSELL REYNOLDS gave some particulars of a case which he had observed, in which the fifth nerve on one side was affected, and which in some points resembled that related by Dr. Althaus. There was almost absolute anæsthesia of one side; the patient could not distinctly perceive the two points of the compasses. There was habitual want of power of the muscles of the face, and the patient had an expressionless appearance; but, when desired to perform voluntary action of the facial muscles, he was able to do so. There was no diminution of the senses of smell and of taste, though the common sensibility of the nostril and mouth was diminished. There was a constant accumulation of secretion in the mouth. He would ask Dr. Althaus as to the effect of the electric current on the nerve-centres, why vertigo was produced when the poles were placed on opposite sides, but none when they were placed one near to the other.

Dr. J. W. OGLE thought that some of the conclusions at which Dr. Althaus had arrived were erroneous. He thought it impossible that the secretions of saliva could be stopped by injury of the fifth nerve within the cranium. The salivary glands were supplied with fibres from the seventh as well as from the fifth nerve; and injury of the fifth nerve could not stop the secretion. Besides, what proof was there that the secretion of saliva was arrested? There was a perpetual dribbling of fluid from the mouth; and no doubt a great part of it was saliva. He believed that both the fifth nerve and the glosso-pharyngeal were concerned in taste: the fifth nerve supplying the anterior third of the tongue, and the glosso-pharyngeal the posterior two-thirds. He did not think that Dr. Althaus's case shewed that the fifth nerve was not a nerve of taste, but the contrary.

Mr. C. H. MOORE had found, in cases in which the gustatory nerve was divided for the relief of pain in cancer of the tongue, that there was absolute loss of sensation in the part of the tongue supplied by this nerve, and that substances placed there were not tasted until the mouth was closed, and they were allowed to come into contact with the palate and the other parts of the tongue. The great flow of saliva with which the patients were troubled was also arrested.

Dr. ALTHAUS thanked the President and the Society for the manner in which his paper had been received. M. Duchenne's case was not so complete as his (Dr. Althaus's); the nerve on one side only was paralysed. Dr. Anstie's remarks opened the way for new views as to the nature of anæsthesia and hyperæsthesia. These conditions seemed to have been too much separated; they were often allied. He had seen cases of neuralgia, with complete anæsthesia of the skin of the affected part. He had noticed the state of the hair in his patient, and had been surprised to find that there was no alteration. With reference to Mr. Soelberg Wells's remarks, he said that he did not see the patient at an early stage, and therefore could not say whether there had been much inflammation of the cornea; but the patient had told him that his eye was better when it was strapped by the surgeon who attended him. The different effects of the electric current referred to by Dr. Reynolds, depended on the fact that in one case the current passed through a large depth of nervous matter, and in the other through only a small portion.

DUBLIN PATHOLOGICAL SOCIETY.

SATURDAY, NOVEMBER 28TH, 1868.

SAMUEL GORDON, M.B., President, in the Chair.

Dislocation of the Femur.—Mr. HAMILTON exhibited a specimen illustrating the cause of failure in a case of dislocation of the femur. James Carolan, aged 71, was admitted into the Richmond Hospital with dislocation of the left thigh-bone into the ischiatic notch. Five hours previously to admission, he and another man were removing hay from a rick, when a large mass, about 13 cwt., fell down suddenly on his back as he was stooping. After he had been extricated, he suffered much pain, and was unable to put his leg to the ground. The limb presented the minor degree of inversion peculiar to the dislocation into the ischiatic notch; the head of the bone could not be felt, even when the limb was rotated inwards. The shortening was a quarter of an inch. On October 27th, 1868, he was submitted to the attempt at reduction by pulleys, efforts by manipulation having failed. The bone was not reduced. A second attempt was made two days afterwards. The dislocation was not reduced, but the head of the bone was removed from the sciatic notch to the dorsum of the ilium. After the pulleys were loosened and manipulation tried, a crepitus was felt, not so distinct as in ordinary fracture, and not of the rough friction character of altered synovia. A week afterwards, a third attempt at reduction was made; it was, however, unsuccessful. It was now observed that the imb no longer presented the appearance of dislocation, but more the characters of fracture of the neck of the femur, with the foot slightly *verted*, and shortening to a full inch. Sand-bags were put on each side of the limb, to keep it steady. About ten days afterwards, he died of congestive bronchitis. On *post mortem* examination, as the body lay on he table, the appearance of the limb had again assumed the characters of dislocation on the dorsum of the ilium, being shortened two inches. The buttock was one inch wider on the dislocation-side. The head of he bone could be distinctly felt on the dorsum ilii, particularly when it was moved by inverting the foot. On turning down the integuments, here was no sign of extravasated blood. The gluteus muscle was quite healthy; beneath it were some patches of chemosis. The gluteus medius was stretched over the head of the bone and trochanters. When his muscle was dissected off, the smooth white head of the bone was een resting in the usual situation of dislocation on the dorsum ilii, just bove the rim of the acetabulum. Over the muscles at the upper part f the ischiatic notch, there appeared a slight lymphy exudation. The auses of the failure of attempts at reduction could now be ascertained. First, the rent in the capsule was so small that the head of the bone ould scarcely be forced through it, unless with great violence. Seondly, the lower edge of the acetabulum was broken, so that it llowed the capsular ligament to yield before the head of the bone. Probably the head of the bone was brought over the opening of the cetabulum, and remained there some time, which explained the posion of the limb after the last attempt at reduction. This was altered efore death by the bone slipping again into its site in the dorsum of the ium.

Intestinal Obstruction.—Dr. HAYDEN exhibited the abdominal iscera of a man who died of intestinal obstruction in the Mater Misericordiæ Hospital on the 11th of November. The man was aged 9, a railway-labourer, reputedly healthy and temperate, and not subct previously to constipation or intestinal derangement of any kind, cording to his own statement. On the evening of October 18th, he was suddenly attacked with severe abdominal pain, accompanied by vomiting. In the early part of that day, his bowels were freely moved. He was admitted into hospital on the 22nd, and had an enema administered to him, after which there was, as stated to Dr. Hayden, another fæcal evacuation. On the 23rd, when first seen by Dr. Hayden, the man was prostrate; pulse 60, and weak. The abdomen was greatly inflated, but tender only at one point in the upper part of the left lumbar region, where slight pain was complained of on firm pressure being made. Here, likewise, but not elsewhere, the sensation of a hard and moving body was perceived, though not very distinctly, owing to the gaseous distension of the abdomen. Vomiting, which ceased on the morning of the 23rd, returned on the evening of that day, and recurred at short intervals, irrespectively of the taking of food or drink, up to the time of death; the matters vomited consisting of the contents of the stomach and small intestine. On the night of October 30th, there was a paroxysm of severe pain in the abdomen, lasting about five hours, and associated with a feeling of tension. The next morning, the man was remarkably prostrate; the tongue dry and crisped; the face haggard; the pulse quick; and the abdomen still more distended. The coils of intestine were now distinctly traceable through the abdominal wall, and, on the slightest pressure, were thrown into strong peristaltic action. Stercoraceous vomiting now set in. On November 9th, an enema was administered with the long tube, and brought away a good deal of scybalous fæcal matter. The tube was also passed up on this occasion nearly eighteen inches, without encountering an obstacle. Electricity was repeatedly used, both externally and by introduction of one pole into the rectum. Active aperients were likewise given, but to no purpose. Opium alone, in large doses, seemed to give relief by allaying peristaltic contraction. On the morning of November 11th, the man was attacked with a severe paroxysm of pain, became collapsed, and died about half an hour afterwards. At the *post mortem* examination, the stomach, small intestine, and the large intestine as far as the splenic angle of the colon, were found enormously dilated, and distended with flatus. Near the latter point, the colon was nearly occluded by a scirrhous thickening, barely leaving room for the passage of a large probe. Thickening and puckering extended some way into the adjacent mesocolon, and the neighbouring mesenteric glands were enlarged and hardened. Below the point of constriction, the bowel was empty, and of the normal calibre. About twenty inches from the junction of the ileum with the cæcum, the former had given way at two points, and allowed the contents to escape into the peritoneal cavity; the openings were surrounded by deep congestion, amounting to incipient gangrene of the peritoneum. The ileo-colic valve had been ulcerated through. Dr. Hayden directed attention to the history of acute obstruction, and the absence of history of chronic disease or previous illness; the situation and closeness of the stricture; and the displacement of the heart. In reference to the last mentioned feature, Dr. Hayden remarked that the chest on that side yielded tympanitic or gastric resonance to the level of the nipple; and, when the patient swallowed liquid, a distinct metallic tinkling was heard on applying the stethoscope to the same level.

OBITUARY.

CHARLES COWAN, M.D., OF READING.

THE life and career of the late Dr. Cowan claim a fuller notice, and teach a more important lesson, than could be conveyed in the brief obituary notice which we were able to give last week.

Although Dr. Cowan graduated in Edinburgh, and resided there the necessary year, he was one of the few Englishmen who also took his degree of Doctor of Medicine in Paris, and passed through the examinations in Arts, as well as in Medicine, required for that high degree. This demanded a lengthened residence in Paris; so that he came to Edinburgh an accomplished French scholar, who had passed through a complete training in the French hospitals, as well as in the schools of medicine, and of science and of classics as far as was necessary for his degree. As an *interne* of the French hospitals, and as a pupil and friend of Louis, he became an adept in physical diagnosis, that safe basis for his subsequent English practice. In Edinburgh, he immediately became known from his speaking at the Royal Medical Society. He had great natural eloquence; and, coming to Edinburgh imbued with French rather than British medical views and acquirements, he raised the warmest discussions, and often had to hold his own, which he was fully able to do, against a battalion of opponents. All admitted and felt his real mental abilities and varied acquisitions, his power of work, his earnestness of purpose, his devotion to his profession, and his high character. It was more the fashion thirty years since than happily it is now, in the superficial, to undervalue the importance of medical science, and to put it in opposition to practice; and the half-instructed, unscientific, unlearned, and unread, were too apt to solace their scientific ignorance by pluming themselves on their practical skill. But rule-of-thumb work in all scientific arts has long been more and more replaced by exacter science; and the best practical men, time shows, are those who took most pains with their scientific training. Faraday said it took twenty years to make a *man* in physical training; before that, he was a boy. And this is most true of medical science and art. But the boy who leaves his university with his prized, hard-won degree, becomes the man by working on the foundation of his acquired science. In the Edinburgh Medical Society, and in some early papers, Dr. Cowan was more marked by a speculative and theoretical intellect; but he was firmly and largely grounded in the facts of medical science; and, when he came to apply these to practice, and by real practical work to understand the art of medicine, he became a consulting physician, called in and confided in over a large area. He began, as young men do, by writing freely; but, as he married early, and "gave hostages to fortune", he wrote less, and devoted himself to practice, and undoubtedly found, what his early friends prognosticated, that he required the observation of facts and the routine of practical work to balance his actively speculative intellect in becoming a sound physician. As a student, he was to his fellows reserved, self-contained, grave, and serious-minded, not mixing in the amusements of any university set, assuredly not in any of their dissipations; and, in his subsequent life, he exhibited the same grave, earnest, conscientious character, evidently founded on religious convictions.

He began practice as a physician at Bath, but soon removed to Reading, becoming the physician of the hospital there; and there he lived and died, and was not only a leading physician, but a leader of the evangelical party on all public occasions. He was one of that class of men who would have been a leading man in any calling and in any place. What he willed, he strongly willed. He was in earnest; he acted on his convictions; and he had that fearlessness, boldness, honesty, and public power of self-assertion, which are the elements of party life, carrying out English life by the one-sided assertion and vehement promulgation of party truths. But, though in his nature a strong party man, yet even those most opposed to him admitted his conscientiousness and sense of duty, and called him into consultation in their families. As a rule, medical men do not take a prominent place either on political or religious platforms. There is no reason why they should not, except the absorbing nature of their work, and the success which strict devotion to it brings, and, with success, an almost total engrossment in it. But, in public social matters, distinct from political or religious, they are more and more the leaders of their centres; and now and then men like Dr. Cowan take a wider and a more prominent range, for, with science and active benevolence, he had the power of speech.

Dr. Cowan was the son of a clergyman, who in his day was remarkable for pulpit eloquence, and for the individuality of his views, and the boldness with which he promulgated them; and Dr. Cowan, both in his natural powers of eloquence and religious earnestness, through life was an instance of those hereditary qualities which are the key to character. His fellow-students thought those powers of speech would not have their full development in Medicine, though they might have led him to the high places of the Bar or Church; and they hardly thought (as his future life proved) that he would have devoted his powers, with what must have been abnegation and self-sacrifice of instinctive promptings, to the laborious and realistic work of a practical physician, as has been since proved by the wide provincial reputation which he enjoyed. But a nobler and more useful sphere he could not have chosen, although neither rank nor wealth is the usual remuneration.

Such natures as Dr. Cowan's work through life at high pressure; and he died, as probably he would have desired to die, in harness. He had been out of health, and gone away for change, and returned in such a state that he was advised not to resume work; but he could not do this. It is the common story of such hard workers—a fortnight in bed, with pulmonary and cerebral congestion, the physical signs of that stasis of blood in the lungs and brain which is the consequence of exhausted vital powers. But that fortnight was a time to him of inward peace and joy.

His funeral on the 5th inst. was followed by most of the rich and poor of Reading; and, as one who lived there writes, "his loss to the town will be great, for his kindness and generosity were unbounded."

Dr. Cowan's name occupies an important position in the history of the British Medical Association. At the annual meeting in Oxford in 1852, he brought forward a motion that the JOURNAL of the Association—then the *Provincial Medical and Surgical Journal*—which was published fortnightly at Worcester, should be issued weekly, and published in London. He supported his proposal with his well-known eloquence; pointing out that the proposed change would strengthen the hands of the Association; that his plan was financially possible; and that, if a first-rate weekly journal were given to the profession, medical practitioners would seek to be elected members of the Association. His proposal met with strong opposition from some of the older members, but was at last carried. For several subsequent years he was a regular attendant at the annual meetings, and took an active part in the debates, and contributed much, by his eloquence, towards those changes which have rendered the Association, both in name and in fact, a British Institution. He delivered the address in medicine at one of the Annual Meetings, and was an occasional contributor to the Transactions and JOURNAL of the Association.

GEORGE NELSON EDWARDS, M.D.

GEORGE NELSON EDWARDS, one of the Physicians of St. Bartholomew's Hospital, was the son of a surgeon in extensive practice at Eye, in Suffolk. Having studied at Cambridge, he entered at St. Bartholomew's in the year 1850, where he soon showed a preference for medicine, becoming clinical clerk to Dr. Burrows, and closely following the practice and teaching of that physician. With the exception of an occasional visit to his University, Dr. Edwards was most assiduous in his attendance at the hospital, where he was more constantly to be seen than any other of the junior expectants of his own standing. Bartholomew men will recall his genial manner, and ready conversation, as a pleasant reminiscence of their visits to the school. By work, and in time, Dr. Edwards gained for himself the reputation of being a sound practitioner of medicine; and, by constant attention to the practice of the wards, and in the out-patient department, strengthened his position as a candidate for the office of Assistant Physician. He was elected on the staff on the retirement of Dr. Hue, in 1860, and, on the death of his friend, Dr. Jeaffreson, in 1867, he became Physician to the Hospital, then only in his thirty-seventh year. A few papers from his pen have, from time to time, been published; and he wrote a short but careful description of the region of the thorax, entitled "Tables on the Examination of the Chest." For two Sessions he lectured on Forensic Medicine, and he also edited three volumes of the *St. Bartholomew's Hospital Reports*; but the best work he carried out was the arranging the series of *Statistical Roports*, which, under his direction as Medical Registrar, were published from year to year, and which gave evidence of the industry with which he discharged a methodical and somewhat monotonous, duty.

Dr. Edwards was careful in the observation of his cases, and gave promise of being a successful clinical teacher, but his career was so abruptly shortened that he had scarcely an opportunity, after his election as physician, for availing himself of his position as a teacher, indeed, he gave only three clinical lectures, and these during the first four weeks which followed his appointment.

His loss is mourned by all those who value an honest and honourable friend, always good natured, and considerate of others. By dint of perseverence he had attained the position he had throughout his life been emulous of, and he leaves behind him none but pleasant recollections and affectionate regrets.

CORRESPONDENCE.

DIRECT REPRESENTATION OF THE PROFESSION IN THE MEDICAL COUNCIL.

SIR,—I much regret that I was unable to attend the special general meeting of the Metropolitan Counties Branch of the Association, on the 8th instant.

Respecting the policy of instituting a direct representation of the profession in the Medical Council, as registered "Medical Practitioners" of the United Kingdom, I trust you will allow me to submit the following considerations to the Association. 1. There is no such legally recognised title as "Medical Practitioner," no such title appearing on the Register of the Council; it is simply a conventional term, and any person so mamed, holds his professional *status* solely in virtue of his legal connection with the College (or Colleges), whence he obtained his diploma (or diplomas). Obviously, the same remark will apply to any other designation of the members of the profession; that their status is a collegiate or an otherwise legally recognised corporate position, or it is nothing at all. 2. To institute a *direct* representation of the profession as Medical Practitioners, or otherwise named, would, therefore, be to divorce the great body of the profession from the Colleges—their *own* Colleges; and thus actually reduce the legitimate professional position of "Practitioners," as members of those institutions. 3. On the other hand, it is a mere evasion of the inevitable issue, to allege that the Universities, Medical Corporations, and Licensing Bodies, are already justly represented, exclusive of the medical practitioners. How is it possible that the interests of those bodies can be honestly regarded when they fail to recognise the claims of their own accredited members?

The present relation of the Medical Corporations to the Profession, and towards the Medical Council, is this: they have taken, and continue to take, the monies of some thousands of men, to whom, in return, they have deliberately granted, and continue to grant, diplomas of full licence to practise medicine or surgery; but, from the days of such membership, forwards, these bodies entirely ignore the professional existence of their members.

The continuance of this system in future would be bad enough, but not so sad as that the members of the said Colleges should now be inadvertently led to ignore their *own* professional existence, and commit professional suicide. I am, etc., FREDERICK J. GANT, F.R.C.S.

Connaught Square, December, 1868.

HOMŒOPATHY IN THE ABERDEEN INFIRMARY.

SIR,—I observe in your leading article of this day's JOURNAL that you misunderstand the meaning of some statements made by me in my letter of the 8th December.

Dr. Smith, in his reply to my first letter, which appeared in the JOURNAL of the 28th ult., virtually abandoned his original protest, and concentrated his objections to my views on the "sixth dilutions" which he saw me using. In order to show how little ground there was in this for interference, I stated the circumstances in which these dilutions were used, and the result. You have, however, supposed that by finding no effect produced in the two or three instances I referred to, I have abandoned all the stronger eclectic and homœopathic drugs, and the position generally for which I was contending. This is a mistake, as you will see by the accompanying letter to the Managers of the Aberdeen Infirmary, and by my reply to Dr. Harvey's pamphlet, and by my published papers.

Whatever the Managers may do on Monday, I certainly cannot withdraw from the position I now occupy. Your insertion of this will oblige Yours faithfully, ARCH. REITH.

Aberdeen, December 1868.

P.S. My colleagues have not yet stated their objections to my published views. A. R.

NEW INVENTIONS, &c., IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE LITHIA-WATER OF COMMERCE.

THE variation in the quality of the lithia-water sold for the use of invalids, has been recently referred to by this JOURNAL. We wish to mention the lithia-water of Messrs. Roughsedge and Summers, whose samples have been examined, and found to contain the full complement of lithia. We found 4.7 grains of carbonate of lithia in a bottle of the water—a result in the highest degree satisfactory. Much of the lithia-water in the market, however, does not come up to the mark. Carbonate of lithia is very rare and costly, and makers of artificial mineral water are not always able to get it pure. We have recently analysed a ample of what was sold to a maker of mineral water as pure carbonate of lithia. It did not contain so much as forty per cent. of real carbonate of lithia, and the lithia-water (the maker of which we know to have been desirous of furnishing a proper article) suffered accordingly.

PREPARATION OF MEDICINAL EXTRACTS IN VACUO.

WE have recently caused a visit of inspection to be paid to the works f Messrs. J. Sellers and Co., whose admirable apparatus for making medicinal extracts *in vacuo* deserves to be recommended to the notice of he medical profession. A large vacuum apparatus which was inspected, s capable of evaporating twenty gallons of water in an hour at 120° Fahrenheit. This will serve to give some idea of the scale of operation. The various extracts prepared by these makers are of the highest quality; nd the difference between nice and nasty, is the difference between a acuum extract and a non-vacuum extract.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

POOR-LAW BOARD.

IT is announced that the Earl of Devon, the late President of the Poor-law Board, before quitting office appointed Mr. Henry Longley, barrister-at-law, to be a Poor-law Inspector, in the room of Mr. Edward Gulson, who had held the office since 1834, and who resigned in consequence of failing health. Mr. Francis Davy Longe has been appointed private secretary to Mr. Goschen, President of the Poor-law Board.

DR. O'SULLIVAN *v.* THE POOR-LAW GUARDIANS OF LIMERICK.

THIS was an action to recover damages for wrongful dismissal from the office of Medical Officer of Limerick Workhouse. It came on for trial last week, before Chief Justice Whiteside and a special jury, and (soon after the opening) resulted in a verdict for the plaintiff, by arrangement, with £100 damages.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

NATURAL SCIENCE SCHOLARSHIPS.—Trinity College offers a Foundation Scholarship (value £80 to £100 a year), for Natural Science. The Examination will be held in Easter week, and will be open to all Undergraduate Members of Colleges or Halls in Cambridge or Oxford. To qualify himself, therefore, a gentleman need only place his name on the boards of a College or Hall. Further information may be obtained from the Rev. E. Blore, Trinity College, Cambridge.

UNIVERSITY OF OXFORD.

RADCLIFFE TRAVELLING FELLOWSHIP.—The examiners for this Fellowship (Professors Acland, Rolleston, and Brodie), have given notice that the next Examination for a Fellowship will commence on Monday, February 1st, at 10 A.M. Candidates are requested to send in their names on or before Wednesday, January 20th, by letter, addressed to the Regius Professor of Medicine, Museum, Oxford.

PHYSICAL SCIENCE EXAMINATION.—The Examiners in the School of Physical Science (A. G. V. Harcourt, M.A., R. B. Clifton, M.A., G. W. Child, M.D.) have issued the following class list:—Class I—John Conroy, Christ Church.—Class II—G. A. B. Beecroft, Christ Church; R. G. Bowyer, Queen's; G. F. Donkin, Magdalene; E. Jermyn, Christ Church; H. S. Stephenson, Queen's; T. Threlfall, Brazenose. Class III—J. V. Glanville, Exeter. Class IV—*Nil*.

Mr. E. RICKARDS, B.A., St. John's, last week passed the First or Scientific Examination for the Degree of M.B.

MEDICAL NEWS.

RESULTS OF METEOROLOGICAL OBSERVATIONS

for the week from Dec. 9th to Dec. 15th (both inclusive).

Taken at Kew, by Dr. TREUTLER, F.L.S., Fellow of the Meteorological Societies of England and Scotland.

Mean height of barometer corrected and reduced to 32° F. and mean sea-level	29.733
Highest reading of do. (corrected and reduced), on 9th, 10 A.M.	30.313
Lowest ditto Ditto on 11th, 2 P.M.	29.264
Range of pressure during the week	1.049
Mean temperature of the air in the shade	48.0
Mean temperature of evaporation	45.6
Mean temperature of dew-point	42.9
Mean degree of humidity (saturation=100)	83.0
Mean maximum temperature of the week	52.2
Mean minimum temperature of the week	41.5
Calculated mean temperature of the week	46.9
Maximum temperature of air in shade, on 11th	56.1
Minimum temperature (protected), on 12th	31.5
Minimum temperature (exposed on grass), on 4th	24.2

Range of temperature during week	31.9
Highest reading of black bulb, solar radiation, thermometer *in vacuo*, on 15th	63.0
Lowest ditto ditto on 3rd	55.3
Mean amount of clouds (0—10)	7.7
Total rainfall (which fell on 11th, 13th, 14th, and 15th)	0.47 inch
Mean amount of ozone (0—10)	5.1

WIND.

	N	NE	E	SE	S	SW	W	NW	Calm.	Mean Force (0—12)
10 A.M.	1	0	1	0	0	4	0	0	1	3.3
2 P.M.	0	1	1	1	0	4	0	0	0	3.3
10 P.M.	0	1	0	3	0	3	0	0	0	3.6

Mean force of wind (0—12) 3.4

The weather of the week has been variable and on the whole fair. Atmospheric pressure increased very rapidly on the 9th, attaining its maximum on the evening of that day; after which it again fell as rapidly; since then it has been unsteady and fluctuating. Temperature has been slightly lower than during the previous week, and the humidity less. Winds have been moderate and chiefly south-westerly. The sky has been for the most part cloudy. The general health continues satisfactory.

Kew, December 16th, 1868.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Monday, December 14th, 1868, the following gentleman, formerly an extra-Licentiate, was duly admitted a member of the College.

Hoggan, William, H.M.S. *St. Vincent*, Portsmouth

At this meeting, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of medicine, surgery, and midwifery, were duly admitted to practise physic as Licentiates of the College:—

Barkas, William James, Newcastle-upon-Tyne
Brewer, Henry Melvill, Newport, Monmouthshire
Butlin, Henry Trentham, St. Bartholomew's Hospital
Clayton, Richard, Oswaldtwistle
Dickinson, William Lindon, Workington, Cumberland
Eck, Vincent Frecerick, 58, Cleveland Square
Giles, William Betts, Guy's Hospital
Greene, Walter, 19, Merrick Square, Trinity Square
Hicks, Edward Buller, Easingwold, York
Humby, Edwin, M.D. St. Andrew's, 83, Hamilton Terrace
Lewis, William Bevan, 37, St. Andrew's Hill, Doctors' Commons
Lucas, Richard Clement, Compton, Hants
Pierce, Frederick Morrish, Royal Infirmary, Manchester
Richardson, William Edmund, Rochdale
Rouch, James Ryall, St. Bartholomew's Hospital
Rowland, Hugh Mortimer, M.D. Aberdeen, Wolverhampton
Sedgwick, Henry, 79, New North Road
Thompson, John Ashburton, Guy's Hospital

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 10th, 1868.

Andrew, James Lawton, Baguley Hill, near Manchester
Butler, Charles, Sutton Benger, Wiltshire
Clark, Andrew, Greenford, Middlesex
Elphick, Edward, Burra Burra, South Australia
Harvey, James D'Arcy, St. Just, Cornwall
Hogg, Richard Bowen, Rotherhithe
Marshall, Henry Flamank, Birmingham
Molecey, Octavius Twigge, Stamford, Lincolnshire
North, John, Winchester
Perkins, Alfred Roberts Steele, St. Sidwell's, Exeter
White, Frederick, Liverpool

At the same Court, the following passed the first examination.

Davenhill, Robert Septimus, St. Bartholomew's Hospital
Gray, George James, University College
Latham, William Henry, St. Bartholomew's Hospital
Nettle, William, St. Bartholomew's Hospital
Smith, James Adolphus, St. Mary's Hospital

MEDICAL VACANCIES.

The following vacancies are declared:—

AUCKLAND UNION, Durham—Medical Officer for the Whitworth (a new) District.
AYRSHIRE DISTRICT LUNATIC ASYLUM—Medical Superintendent.
BATTLE UNION—Medical Officer for District No. 1 and the Workhouse; Medical Officer for District No. 2.
BIRKENHEAD BOROUGH HOSPITAL—House-Surgeon.
BIRMINGHAM—Public Vaccinator for the Parish of.
CITY DISPENSARY, Watling Street—Physician.
CITY OF LONDON—Examiner of Gas.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park—Physician.
COVENTRY AND WARWICKSHIRE HOSPITAL—Physician.
CUNNINGHAM COMBINATION POOR-HOUSE, Irvine, Ayrshire—Surgeon.
DONCASTER GENERAL INFIRMARY AND DISPENSARY—Dispenser.
FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, Holborn—Surgeon.
FOREHOE INCORPORATION, Norfolk—Medical Officer for District No. 4 and the Workhouse.
GLASGOW EYE INFIRMARY—Surgeon.
GLASGOW ROYAL INFIRMARY—Physician to the Dispensary Department.
GLOUCESTER GENERAL INFIRMARY—Assistant-Surgeon.
HORNCASTLE UNION, Lincolnshire—Medical Officer for the Revesby District.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Physician.
HOSPITAL FOR WOMEN, Soho Square—Assistant-Physician.
HUDDERSFIELD AND UPPER AGBRIGG INFIRMARY—House-Surgeon.
IRVINE, Ayrshire—Parochial Medical Officer.
KENSINGTON DISPENSARY—Resident Medical Officer.
KINGSBRIDGE UNION, Devonshire—Medical Officer for District No. 7.
LIVERPOOL DISPENSARIES—Resident House-Surgeon.
MANCHESTER, NEW BRIDGE STREET WORKHOUSE—Assistant-Resident Medical Officer.
MIDDLESEX HOSPITAL—Obstetric Assistant Medical Registrar, and Resident Medical Officer.
NATIONAL EYE AND EAR HOSPITAL AND GENERAL DISPENSARY, Cuffe Street, Dublin—Physician.
PHILIPSTOWN AND GEASHILL, King's County—Medical Officer to the Constabulary.
PRESTEIGN UNION, Radnorshire—Medical Officer for the whole Union.
READING UNION, Berks.—Medical Officer for St. Mary District.
ROYAL BERKSHIRE HOSPITAL, Reading—Physician.
ROYAL INSTITUTION OF GREAT BRITAIN—Fullerian Professor of Physiology.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ST. BARTHOLOMEW'S HOSPITAL—Physician and Lecturer on Forensic Medicine.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician.
TORBAY INFIRMARY AND DISPENSARY, Torquay—Physician and Two Surgeons.
TRINITY COLLEGE, Dublin—Professor of Botany.
TULLAMORE UNION, King's County—Medical Officer for the Philipstown Dispensary District and the Geashill Branch.
UNIVERSITY COLLEGE HOSPITAL—Physician to the Skin Infirmary.
WYMONDHAM BRIDEWELL—Surgeon.
WANDSWORTH AND CLAPHAM UNION—Medical Officer for the Putney District.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—National Orthopædic Hospital, 2 P.M.
WEDNESDAY	St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY	Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
SATURDAY	St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Thomas Bryant, Esq., F.R.C.S., "On Excision of the Knee-Joint;" Dr. Oppert, "Two Cases of Lead-Poisoning;" Dr. Buchanan, "On Local Conditions affecting the Distribution of Phthisis."

TUESDAY.—Pathological Society of London, 8 P.M.—Anthropological Society of London.—Statistical Society.

WEDNESDAY.—Geological Society.

THURSDAY.—Harveian Society of London, 8 P.M.

SATURDAY.—Association Medical Officers of Health.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

We cannot undertake to return Manuscripts not used.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

Cases for Binding the Volumes of the Journal may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

New Members.

MR. E. B. VISE (Holbeach), Dr. A. T. H. Waters (Liverpool), Dr. Peacock (Honiton), Dr. Gervis (London), Dr. Browne (Stockenstrom, Cape of Good Hope), Dr. Croft, Dr. Jones (Llanberis), Mr. W. C. Cass, Mr. R. Cooper Todd, Mr. Walter Smith (London), Mr. Reginald Harrison (Liverpool), and Dr. Stephens (Brighton), are thanked for their communications. Forms of applications and copies of documents have been forwarded where requred

WE have received copies of the last Examination Papers for the Degree of M.B. at the University of Oxford. We are unable to find space for their publication, but will forward them to any one interested.

Spear *v.* Doidge.

DEFENCE FUND.—Committee: J. Kempthorne, Esq., Callington; J. H. Willis, Esq., Lewdown; D. Thompson, Esq., Launceston. Treasurer: E. Pethybridge, Esq., Launceston Bank. Honorary Secretary: Mr. G. M. Gifford, Bellevue, Launceston. To either of whom, or to the Editors of the BRITISH MEDICAL JOURNAL, 37, Great Queen Street; the *Medical Times and Gazette* (Messrs. Churchill and Sons); and the *Lancet*, 423, Strand—subscriptions may be paid. The following is the Subscription List. H. Babbage, Esq., London, £5; R. Willis, Esq., Horrabridge, £5:5; J. H. Willis, Esq., Lewdown, £5:5; C. Pethybridge, Esq., banker, Launceston, £5:5; J. Wilson Thompson, Esq., Launceston, £5:5; Dr. Littleton, Plymouth, £1:1; H. Walmsley, Esq., Preston, £1:1; T. Q. Couch, Esq., Bodmin, £1:1; H. E. Sargent, M.D., Polyphant, £1:1; J. Crocker, Esq., Stogumber, £1:1; W. P. Swain, Esq., Devonport, £1:1; J. Somer, Esq., Broadclist, £1:1; J. Gould, Esq., Hatherleigh, £5; R. Kerswill, Esq., St. Germans, £1:1; A. W. Owen, Esq., Hatherleigh, £1:1; W. C. Northey, Tavistock, £1:1; J. Pearse, ditto, £1:1; R. Sleman, Esq., ditto, £1:1; W. Brown, Esq., Callington, £1:1; W. B. Dalby, M.D., H.M.S. *Implacable*, Devonport, £1:1; J. K. Cotton, Esq., Barnstaple, £5:5; Thos. Boyle, Esq., New Quay, 10s. 6d.; A. Kelly, Esq., Kelly, £10; John Wace, Esq., Clifton, £2:2; T. White, Esq., 10s.; A. Gaved, St. Mabyn, £1:1; C. R. Prance, M.D., Plymouth, £1:1; T. B. Harness, M.D., Tavistock, £1:1; anonymous, 10s.; Thomas Good, Esq., Launceston, £1:1; T. Langston, Esq., London, 10s.; W. J. Square, Esq., Plymouth, £1:1; R. J. Laity, Esq., Devonport, £1:1; Dr. Bulteel, Plymouth, £1:1; J. Thompson, M.D., Bideford, £1:1; R. Griffin, Esq., Weymouth, 5s.; W. P. Simpson, Esq., ditto, 5s.; Joseph Harper, Esq., Barnstaple, £1:1; A. Hingston, Esq., Liskeard, £1:1; J. H. S. May, Esq., Plymouth, 10s. 6d.; Rev. H. J. Morshead, Kelly, £1; H. T. Wood, Esq., Gunnislake, £1:1; W. A. Leslie, Esq., Bletchingly, 2s. 6d.; — Trimmer, Esq., Okehampton, £1:1; Thos. Harper, Esq., Plymouth, 10s. 6d.; T. S., 7s. 6d. ⁂ The donation of Mr. Greenway, Plymouth, should have been announced, £3:3.

P.S.—Small sums conveniently sent in postage-stamps. Further subscriptions are earnestly requested in aid of this good cause.

A Puzzling Case.

SIR,—I should be glad if any of your correspondents could give me a hint as to the successful treatment of the following case, which has hitherto entirely baffled me.

The patient is an unmarried lady, about the middle period of life, whose menstrual function is regularly performed; the flow, however, being generally very copious, and the subject of habitual costiveness. She is of a highly nervous and excitable temperament, and troubled with sleepless nights. Five or six years ago, she sustained a severe shock to the nervous system, from the fact of a surgical operation being performed upon her brother, to whom she was devoted, whom she afterwards nursed, and whose case ended fatally. She has not been like the same person since; and at the present time is so nervous, that the least noise or rap at the door causes her to jump off her seat. Many of her symptoms indicate an hysterical temperament; but the chief and most painful feature in the case is a want of circulation in the fingers and toes, especially the former, which has continued now for several years. The fingers become many times during the day, particularly in the morning and on any emotion, perfectly livid and cold, feeling as if stiff and dead, so that she is quite unable to hold anything, or attend to her duties. This state lasts for hours at a time, and is often succeeded by a death-like whiteness of the fingers.

Various remedies have been tried—many with none, a few with only slight and temporary relief; such as tonics, stimulants, antispasmodics, opiates, etc., regard being had always to the state of the bowels. I may add that loss of appetite is quite constant. I have found that variety of scene and occupation has a beneficial tendency; but, in the case in question, there is no possibility of having much recourse to this.

I am, etc., INQUIRER.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

ERRATUM.—In the Report of Dr. Hayden's paper on Circumscribed Empyema (JOURNAL, December 5th, page 602, col. ii, line 5), for "was rendered *most* improbable", read "was rendered *not* improbable."

Printing for the Blind.

SIR,—I have just read an article, copied from your JOURNAL, upon the education of the blind. I am glad to see so much active interest in their behalf. I have had little or no opportunity of becoming acquainted with their educational systems. All that I have seen has been a blind person here and there sitting in a public thoroughfare, reading from an embossed book (the Bible), formed of paper or thin card-board (the letters being embossed).

I have simply thought that metallic leaves would be better than those of this thin card-board: they might be made quite as thin as any book-paper, and formed of such a substance; the embossed letters would retain their sharp edges very much longer than they can possibly do when formed of the card-board. But for anything I know, these metallic leaves may be already in use. I am, etc.,

Stanley, near Liverpool, December 1868. A WELL WISHER.

A PROVINCIAL STUDENT.—On reference to our advertising columns, you will find that the day for sending in applications is long passed. It is stated that there are nearly two hundred and fifty candidates for the Arts Examination.

A PROVINCIAL SURGEON.—We inserted the letters to prevent the possibility of any misunderstanding, and to meet the wish of the writers, who evidently, however, had misunderstood the paragraph. The return was the number of *dissecting* pupils at the schools mentioned; of course, there are several who have finished, and others who have not yet commenced their anatomical studies.

A MEMBER (Penzance).—The annual meeting of the Association will take place about the same time at Leeds.

DR. McJ.—John Astley was born at Wem, Shropshire, where his father, a medical man, practised. In January, 1760, he married Lady Duckenfield Daniel. She died soon afterwards, when he inherited £5000 per annum, and gave himself up to the grossest dissipation. After Astley's decease, Dr. Graham exhibited, in Pall Mall, the delusive wonders of his "Celestial Bed", Mrs. Siddons's sister, Mrs. Curtis, representing the Paphian Goddess.

WE are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Wiltshire County Mirror, Dec. 16th; The Aberdeen Journal, Dec. 9th; The Birmingham Daily Post, Dec. 10th; The Aberdeen Free Press, Dec. 11th; The Aberdeen Herald, Dec. 12th; The Western Morning News, Dec. 12th; The Japan Times' Overland Mail, Oct. 21st; The Lincoln, Rutland, and Stamford Mercury, Dec. 11th; The Berkshire Chronicle; Arris's Birmingham Gazette.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. J. Marston, London; Dr. Paget, Cambridge; Mr. R. Harrison, Liverpool; Mr. C. H. May, London; M.D., L.R.C.P.E., Cockermouth; Dr. Thorburn, Manchester; M.R.C.S.E., Droitwich; Dr. Ogston, Aberdeen; Sir Henry Cooper, Hull; Dr. Cameron, Liverpool; Dr. Wolfe, Glasgow; Dr. Headlam Greenhow, London; A Subscriber, Ballymena; Dr. Horace Dobell, London; Mr. F. C. Skey, London; Dr. Clay, Plymouth; Dr. Meadows, London; Colonel C. B. Ewart, London; Dr. J. Mulvany, Dundalk; Dr. Hingston, Plymouth; Dr. A. Ransome, Bowden; Mr. W. J. Square, Plymouth; Dr. Fleming, Birmingham; Mr. A. Baker, Birmingham; Dr. Samelson, Manchester; Dr. Broadbent, Manchester; Mr. Crosby Leonard, Clifton; Dr. W. Rivington, London; Dr. Waters, Chester; Dr. Waters, Liverpool; Mr. Willcox, Wareham; Mr. E. Hayward, Manchester; Mr. Peacock, Honiton, Devon; Mr. Gaine, Bath; and Mr. Stump, London.

LETTERS, ETC. (with enclosures) from:—

Dr. D. Dyce Brown, Aberdeen; Dr. R. Barnes, London; Mr. Heckford, London; Mr. Wanklyn, London; Mr. W. A. Harrison, London; Dr. C. Gage Brown, London; Mr. Holmes Coote, London; Dr. Barter, Bath; Dr. Page, Durham; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; The Registrar-General of England; Mr. T. M. Stone, London; Dr. John Murray, London; Dr. Treutler, Kew; Mr. C. J. Fox, London; Mr. J. Sampson Gamgee, Birmingham; Mr. Gant, London; Dr. Kristian Kionëg, London; Mr. Pitman, Manchester; Mr. E. Chapman, Oxford; Dr. Humphry, Cambridge; Dr. Priestly, London; Dr. Thorowgood, London; Dr. Reith, Aberdeen; The Secretary of the Microscopical Society of London; G. H. S., Cumberland; Dr. C. W. Browne, Stockenstrom, Cape Colony; Mr. A. Fleischmann, Cheltenham; Dr. Rutherford, Edinburgh; Dr. Crighton, Leamington; Mr. H. Greenway, Plymouth; Dr. Percy Leslie, Birmingham; Mr. W. Smith, Clifton; Mr. Copney, London; Mr. J. Ashburton Thompson, London; Mr. T. Wharton Jones, London; The Secretary of the Royal Medical and Chirurgical Society of London; Messrs. Coleman and Co., London; Mr. S. Wood, Shrewsbury; Dr. H. Philipson, Newcastle-on-Tyne; and Mr. Overshed, Ampthill.

BOOKS, ETC., RECEIVED.

On the Conveyance of Cholera from India, through Persia, Armenia, and Georgia, to Russia and the rest of Europe. By John C. Peters, M.D. New York: 1868.

The Glasgow University Calendar for the year 1868-69. Glasgow: 1868.

Conservative Surgery. By Albert G. Walters, M.D. Pittsburgh: 1867.

Address of Samuel D. Gross, M.D., LL.S., President of the Association. Extracted from the Transactions of the American Medical Association. Philadelphia: 1868.

Report of the Proceedings of the Association of Medical Superintendents of American Institutions for the Insane. Printed by direction of the Association. Harrisburg: 1868.

Report of the Waterford Lying-in Hospital for the year 1867-68.

Health and Meteorology of Newcastle and Gateshead. Fifth Report for 1868. By G. H. Philipson, M.A., M.D. Newcastle-upon-Tyne: 1868.

Transactions of the Pathological Society of London. Vol. XIX. London: 1868.

Hooper's Physician's Vade Mecum. Eighth Edition. Revised by William Augustus Guy, M.B.Cantab., F.R.S., and John Harley, M.D.Lond., F.L.S. London: 1868.

The Practice of Medical Electricity. By G. D. Powell, M.D. Dublin: 1869.

Four Letters on Homœopathy. Addressed to a Manager of the Aberdeen Royal Infirmary. With an Appendix on Homœopathic Statistics. By Alexander Harvey, M.D. Aberdeen: 1868.

Cases in Surgery, illustrative of a New Method in applying the Wire Ligature in Compound Fractures of the Lower Jaw. By Hugh Owen Thomas, M.R.C.S. London: 1869.

A Manual of the Operations of Surgery; for the use of Senior Students, House-Surgeons, and Junior Practitioners. Illustrated. By James Bell, F.R.C.S.Edin. Second Edition. Revised and Enlarged. London and Edinburgh: 1869.

The Sanitary Aspect of the Sewage Question. By James Adams, M.D. Glasgow, Edinburgh, and London: 1868.

The Climatic Treatment of Consumption and Chronic Lung Diseases. By John C. Thorowgood, M.D.Lond. London: 1868.

Report of the Cam Purification Committee. Presented to the Board of Improvement Commissioners, December 1st, 1868. Cambridge: 1868.

A Medico-Legal Commentary on a Recent Trial. By James George Davey, M.D., Bristol.

Historic Teachings, or Facts for the Thoughtful. By James George Davey, M.D. London, Bristol, and Gloucester: 1868.

The Glasgow Medical Journal. Published quarterly, No. 1. November 1868.

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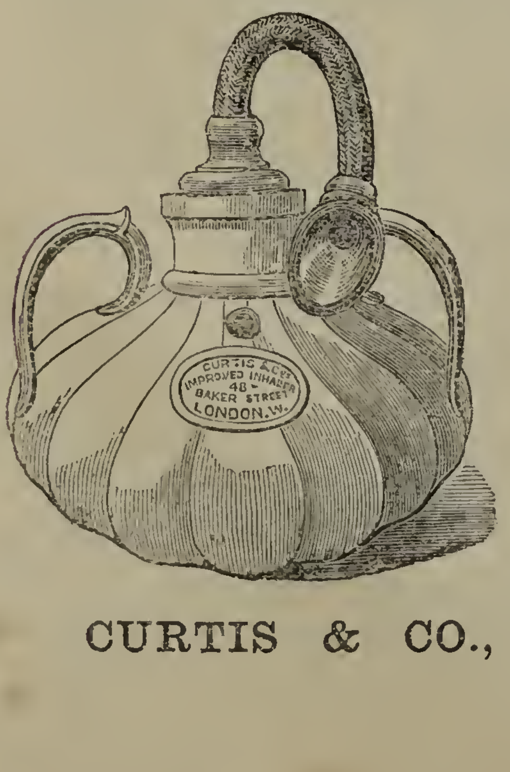

The Editor of the *Lancet* writes:—

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CURTIS & CO., PHARMACEUTISTS, 48, BAKER STREET, LONDON, W.

REMARKS
ON
CERTAIN AFFECTIONS OF THE VASO-MOTOR NERVES.*

By J. RUSSELL REYNOLDS, M.D., F.R.C.P.,
Professor of the Principles and Practice of Medicine in University College;
Physician to University College Hospital.

THERE are uneasy feelings, such as "numbness", "coldness", "deadness", and "weakness" of the limbs, which often come on suddenly, disappear, and again return, causing great discomfort to the patient, and sometimes considerable alarm, the precise nature of which has not, so far as I know, been defined. These feelings are sometimes the indication of disease in the brain or spinal cord, and sometimes the result of local interference, by external pressure, with either the innervation or blood-supply; but they are, I believe, much more commonly due to a condition altogether different—viz., to a paroxysmal affection of the vaso-motor system of nerves. If I am right in my inference with regard to them, their pathological significance is not that which has been hitherto maintained; and their treatment should be conducted upon a plan different from that which has been ordinarily followed. Symptoms, analogous to those I have mentioned, occur elsewhere than in the limbs, and may, in my opinion, receive a similar explanation. The subject, therefore, is one of wide interest to both the pathologist and the physician; for, acting upon the suggestion which I am about to offer, numberless discomforts, and much alarm, of the kind that has been mentioned, have been removed, after other measures had been adopted but without success.

My attention was directed to this subject nearly four years ago, by observing a very curious case, of which the following are the most important facts.

A lady, about thirty years of age, met with an accident in which her collar-bone was dislocated at its sternal end. She had been previously in good health, but afterwards became "nervous", and suffered much pain in the lower part of the neck. The spinous processes of the sixth and seventh cervical vertebræ were tender upon pressure; and I noticed that, when pressing upon them, there was a slight pallor of the face, trifling duskiness about the lips, and sometimes just perceptible dilatation of the pupils. These changes were accompanied by an indefinable sensation of uneasiness in the right arm, and by distinct pain at the seat of pressure. A similar series of events occurred every now and then when no pressure was exerted; and the patient complained of occasional uneasiness in the head, with some slight obscuration of consciousness. Being anxious to ascertain further the effects of pressure on the spinous processes, I requested Dr. Bridge, in consultation with whom I saw the patient, to press upon the spinous processes while I examined the pulses at the wrists. Both radial arteries were beating steadily; but, the moment that the vertebræ were pressed upon, the pulse in the right wrist became enfeebled; and, after a few seconds, the pressure being continued, it ceased altogether. There was no failure in the action of the heart; the left radial pulse remained unchanged; and, the moment that the pressure was withdrawn, the circulation returned in the right radial. The beat of the subclavian artery was sometimes imperceptible, but that of the brachial just above the elbow could always be discerned. These phenomena were so interesting and so singular, that the observations were repeated many times, and were witnessed also by Dr. Walshe and Dr. Anstie. Attempts were made to obtain a sphygmographic tracing of the pulse; but it was, at that time, impossible so to adjust the instrument as to obtain a distinct trace. There were no signs of either cardiac or vascular disease to be detected by the stethoscope.

The subsequent history of this case I am unable to furnish, for the patient has gone beyond the reach of my observation; but the facts I have described were observed more than a score of times by myself and by the gentlemen I have mentioned. They are these: that, in obedience to an external influence, which occasioned pain in the lower cervical region, the circulation was arrested in the periphery of the right arm; and that this arrest was attended by an uneasy sensation in that extremity, and by some slight change in the circulation of the face and head.

Following out the suggestion afforded by this case, I have, since its occurrence, examined carefully the circulation in all patients that have complained to me of altered sensations in the limbs. Many times, when there has been tenderness of the spine, I have examined the radial pulses; and, although I have often found one or both of them rendered irregular by pressure upon a painful spot, I have not again observed an absolute arrest of the peripheral circulation.

A local interference with the circulation in the limbs reveals itself to the patient by the following symptoms.

1. Occasional sudden, paroxysmal feeling of "numbness"—a term employed by some to denote the sensation of "pins and needles"; by others, that of "deadness" and "weakness"; and by a third group, an "indescribable feeling of something wrong".

2. The feeling of "largeness", or "as if the limb were swollen"; there being, at the time of its occurrence, no change in the size of the extremity.

3. The occurrence of "aching", of "uneasiness", or of actual "pain"; the latter not being severe.

4. The feeling of "coldness", and occasionally the obvious fact of coldness.

5. The fact of sudden weakness, sometimes termed a "paralysed feeling"; the patient being unable to retain the grasp of an object, and hastily putting it down, or allowing it to fall. At such times, the muscles do not respond readily to the will; the coordination of movement is defective. Such acts as writing or needlework have to be discontinued; and generally such patients rub the limbs, by, as it would seem, an almost instinctive impulse.

6. The occurrence of sensations allied to cramp, or that of actual cramp, with varying amounts of pain.

Where symptoms of the kind I have mentioned occur paroxysmally, I have almost invariably found a distinct interference with the local circulation. Such interference may be displayed by changes in colour and temperature, or by alterations in the force or rhythm of the pulse. The fingers or toes sometimes become white, sometimes of a dusky grey tint; they are occasionally much cooler than they were before the paroxysm occurred, and cooler than are the corresponding members on the other side of the body. The pulse in one limb becomes smaller and feebler than is its wont, smaller and feebler than it is on the other side; and very often there is a marked irregularity of both force and rhythm—an irregularity altogether confined to the affected limb. Sometimes the weakened pulse intermits at every fourth or fifth beat, while that on the opposite side of the body maintains its regularity, and the action of the heart is unaffected.

The symptoms I have mentioned are very common in epileptics; they are met with in cases of chronic cerebral and spinal disease; but they sometimes exist alone, and of themselves furnish the only evidence of affection of the nervous system. They then occur paroxysmally; they involve the whole of the periphery of a limb; and they are often completely removed by the administration of bromide of potassium. They are related to a number of apparent causes; but those most commonly observed are the following:—*a.* Mental strain, intense and of short duration; or the prolongation of overwork, carried only to a medium degree of excess. *b.* Emotional disturbance, and especially that of chronic worry, but not rarely that resulting from sudden and intense alarm or grief. *c.* Violent sensational impressions, or changes in the afferent nerves, such as the neuralgiæ, shocks, bruises, and exposures to cold. *d.* Disturbances of the general health, and particularly those which involve the digestive processes.

I venture to refer the symptoms which I have mentioned to an affection of the vaso-motor system of nerves, and not to disease of the cerebral or spinal centres, for the following reasons.

1. Their frequent existence without any other indication of derangement in the nervous centres. The mind, sensation, motility, and nutrition, may be intact.

2. Their paroxysmal occurrence, and manifest relation to epileptic seizures, the essential element of which would seem to be a suddenly occurring change in the circulation of the head.

3. Their distribution in the limbs affected. They are not limited to the peripheral expansions of particular nerves; but they involve usually the whole of the extremity at its distal end.

4. Their frequent association with manifest changes in the blood-supply of the affected parts, such as pallor, coldness, irregularity and intermission of the pulse.

5. Their marked alleviation and frequent removal by the administration of bromide of potassium; and

6. Their definite relation to the very curious case which I described at the onset.

The symptoms which I have described are, I believe, of the nature of epileptic affections; the difference between them and epilepsy being this, that in the latter the disturbance takes place in the cerebral circulation, whereas in the former it occurs elsewhere.

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* Read in the Medical Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

Symptoms analogous to those I have mentioned, and owning a similar pathology, are often met with in other organs; but it is my purpose now only to enumerate those which by a parity of reasoning may, I think, meet with a like explanation. They are, paroxysmal breathlessness; some pseudo-anginal attacks; vertigo; temporary amaurosis or deafness; and paroxysmal dyspepsia, vomiting, with sudden accumulation of flatus, and their concomitant and subsequent discomforts.

My object is to remove some of the alarm which is often felt upon the occurrence of the symptoms I have mentioned, by suggesting that they do not depend, as they have been commonly supposed to depend, upon disease of the great centres of innervation; but upon a change in that system of nerves which is the most liable to disturbance, and the aberrations of which are commonly the most amenable to treatment.

CASE OF IMPERFORATE ANUS,

IN WHICH THE RECTUM OPENED INTO, AND DISCHARGED ITS CONTENTS THROUGH, THE URETHRA, IN THE MALE.*

By HENRY DODGSON, M.D., Cockermouth.

On December 19th, 1867, I was requested to see an infant that was said to have no outlet to the bowel. The child had only been born on the previous day, and nothing amiss was then observed with it; the attention of the attendant being first drawn to it, some hours after birth, from the circumstance of the napkins not being soiled. It was then found that something was wrong; and I was sent for.

On examination, about twenty-four hours after birth, the child was seen to be a well-nourished mature male, with no other abnormality than the entire absence of anus, and, perhaps, a slightly enlarged and inflamed state of the penis. The site of the anus was occupied by a slightly elevated ridge or raphe. Neither urine nor meconium had been passed; and the stomach rejected all food that was given. The retching and vomiting were apparently owing to the obstruction at the outlet of the intestinal canal. With a view to relieve this, an incision was at once made in the mesial line of the perinæum, immediately in front of the tip of the coccyx, to a depth of about half or three-quarters of an inch. No trace of rectum could then be seen, or felt by the finger introduced into the wound. An hour or two afterwards, the wound was enlarged and deepened, with the assistance and concurrence of my friend Mr. Whitehead, but without finding the rectum. As no urine had yet been passed, a small probe was introduced into, and passed along, the urethra, with a view of ascertaining whether the canal was pervious. It was passed nearly into the bladder, and could be distinctly felt by the finger in the perineal wound.

On the following day (the 20th), the child was in much the same state, the stomach still rejecting what little food was given. It had, however, passed urine. On examining it, along with my partner, Dr. H. Bell, the extremity of the penis was observed to be smeared over by a small quantity of dark brownish matter, resembling meconium. As it seemed probable that this had, in some manner, found its way into the urethra from the rectum, it was not thought advisable at that time to make any further attempt to establish an anus artificially by deepening the perineal wound.

From this time forward, an increasing quantity of semi-solid matter passed by the urethra; consisting first of meconium, but afterwards of feculent matter, resembling the natural evacuation of a child at that age. The urine was passed separately from the fæces, and was quite natural in appearance. The vomiting subsided so soon as the contents of the rectum began to pass freely by the urethra. The infant, however, did not thrive, but became gradually thin and emaciated, losing all its former plumpness. This was, probably, in part owing to the mother not having sufficient breast-milk, so that it had to be fed artificially. Although it took a considerable quantity of food, consisting of cow's-milk diluted with water, and having a little sugar added to it, it continued to waste away until Jan. 25th, 1868, when it died.

Post Mortem Examination, forty-eight hours after death.—The external appearance was that of very great emaciation. On opening the abdominal cavity, the intestines were found to be empty, or contained only flatus. Nothing unusual was observed in any of the viscera, except the rectum, which was considerably dilated. On carefully tracing it down into the pelvis, it was found to terminate in a rounded, somewhat bulbous extremity, without outlet, except that on its anterior inferior aspect, where it was contiguous to the urethra, there was a small opening communicating, by a very short canal of about the diameter of a crow's-quill, with the prostatic portion of the urethra. The urethral orifice of this canal was situate in the sinus pocularis or utricle, immediately in front of the caput gallinaginis.

Remarks.—This case is remarkable in one or two respects. It is unusual for the rectum, in cases of imperforate anus, to terminate in the male urethra, though not so rare for it to open into the vagina in the female. The point at which the urethral orifice occurred is also worthy of notice; viz., the sinus pocularis, which is now recognised as the analogue of the uterus. Then, again, the case is remarkable from the length of time the child lived with this imperfect outlet to the rectum (thirty-seven days). But, though the orifice into the urethra was so small, it appears to have been sufficient for the requirements of the economy, for the symptoms of obstruction or strangulation subsided so soon as meconium began to pass by it; and the intestines were found empty after death. Had the child thriven and appeared likely to live, another operation would have been made for the purpose of establishing an artificial anus; as it was apparent, from the fact of the urine being passed separately from the fæces, that the rectum descended low down into the pelvis, and opened into the urethra and not into the bladder.

ON THE IMPORTANCE OF OBTAINING CORRECT COMPARATIVE OBSERVATIONS

IN ESTIMATING THE INFLUENCE OF LIGHT IN HEALTH AND DISEASE: ILLUSTRATED BY THE ACTINOGRAPH.*

By HORACE SWETE, Esq., Weston-super-Mare.

Whilst much has been done in enabling us to register and tabulate correctly, the heat and pressure of the atmosphere, the quality and quantity of electricity present, the force and direction of the wind, and the amount of moisture and rainfall, there has little as yet been effected to provide us with reliable information as to the nature and amount of the chemical properties of light. The results of the observations of the meteorologists are of no small importance to the physiologist and pathological observer. Great strides have been made of late in statistical observations. The duration of life, the time of death, the rise and fall of the thermometer in the exacerbations and remissions of disease, have, in conjunction with the observations I have alluded to, thrown a new light on many points of interest in the study of disease. I need not take up your time when so many subjects of importance are being brought before you, by entering into any lengthened description of the effects of light on the human system.

We all appreciate the difference between the ruddy and healthy country children and those brought up in the close and crowded alleys of our cities, where frequently the only light they habitually enjoy is reflected, and not the direct sunbeam. The collier or the miner, working underground, may be recognised among his fellows at a glance; whilst in the vegetable kingdom we well know the effects of screening plants from the light. It becomes then a matter of no small importance to be able to register, as accurately as we can, the amount of heat or the pressure of the atmosphere, the daily amount of the chemical action of light; and it will be a matter of more than the common interest of curiosity if we can establish registers of comparison in different places so as to tabulate the amount of actinism in the crowded city, the wooded village, or the open seashore. I have endeavoured to construct an instrument to effect this purpose; though it may be considered as yet in an unfinished state, being only of home manufacture, or more properly, tinkering, and the results can only be received as an approximation to what may be done when the machinery is constructed with more mathematical accuracy. Still, I am anxious not to delay to place it in a more perfect state, but to bring it before the notice of this Association, in the hope of inducing some of our associates to work in unison with me in different localities; so that, during the ensuing year, we might collect some tabulated results which I feel convinced will ultimately be of importance, not only as an addition to the registers of other meteorological phenomena, but as throwing much light on the statistical study of disease, and especially on the value of our various health resorts.

And here I may remark the very great importance there is in having our instruments of observation self-registering. Machinery is less liable to err than the visual observation of different persons. Those of you who saw the interesting demonstrations of M. Marey on the Sphygmograph and Cardiograph, must have been struck with the accuracy of the observations; whilst the means taken in the complete and effective Observatory of this University to record observations by the photographic process, at once demonstrate the vast superiority of such means of self-registration over the former method of mere visual inspection.

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* Read before the Cumberland and Westmorland Branch.

* Read before the Public Health Section at the Annual Meeting of the British Medical Association in Oxford, August 1868.

I need hardly call to your minds the three-fold nature of the light we derive from the sun: the pure visual light, greatest in the yellow ray; the calorific part of light, greatest in the red; and the chemical or actinic effect, which is most intense in the blue. Nor is this three-fold nature only to be found in the different colours of the spectrum; it is also to be met with in the various times of its duration; thus, whilst the visual light is greatest at the meridian, the actinic predominates in the forenoon, and the calorific in the afternoon. These facts are frequently brought to our minds. The photographer obtains his most perfect results at 11, or thereabouts, in the forenoon; whilst the recent intensely hot weather has drawn our attention to the fact, that cases of sun-stroke have been most frequent from 2 to 5 in the afternoon. Dr. Aitken states that, out of sixteen attacks, ten were from 2 to 5 P.M. I have myself frequently observed, whilst exposed to the direct rays of the sun, on volunteer duty, that the most intensely hot day is comparatively bearable to 3 P.M., but at 4 or 5 it has been difficult to keep up. Now, time to us is only the angle or position in which we are placed as regards the sun. The light emanating from the sun I conceive to be always the same, the presence or absence of smoke, moisture, or impurities in our atmosphere, making the difference we find from day to day added to the sun's actual distance, owing to the convexity of our earth and the angle at which the sunbeam impinges upon it.

The chemical effects of actinism in oxydising metallic substances, and the daily improvements in the photographic art, have given us the means of estimating the amount of this quality in the light of the sun. Various actinometers have been devised for estimating the amount of time required to expose a salt of silver to produce a certain tone of colour; but, as yet, these have been of more use to the photographer than the meteorologist or physical observer. Observations to be of scientific value should be continuous and self-registering, and should also be capable of being taken with the same accuracy in different places, so as to shew comparative results; nor should any one set of observations be taken, or at any rate theorised on, alone. The variations of the thermometer and barometer, the nature of the clouds, and the amount of moisture and rain, are all necessary to be borne in mind in making any deductions of value as to the amount of actinism. Thus, the murky atmosphere of our crowded manufacturing towns, and the lurid clouds of an impending thunderstorm, might both shew in my instrument a considerable decrease of actinism; whilst the deduction to be drawn from that fact would be entirely different.

The instrument I have devised for providing us with a reliable record of the quantity of actinism present, I denominate the Actinograph, whilst to the results I have given the name of Actinograms. The one I shew you is of the roughest possible order, manufactured, or rather I should say tinkered up, at home, without any pretensions to mathematical accuracy; and the results, in a scientific point of view, are, therefore, of little value. I bring it before your notice to shew what may be done when I am able to perfect my design, and I will point out some of the fallacies which the observations at present taken shew, and the means which I propose to use to make the actinograph an instrument that I hope will form an addition to those already devised for the correct registration of meterological and physical phenomena. I simply pass a strip of paper, already sensatised, across a chink of light, one-tenth of an inch at a rate of five minutes, so that every particle of the paper thus prepared is exposed for five minutes. To do this, the amount of paper ribbon required is rolled on a feeding wheel, passed under a friction wheel, and over a wheel driven by clock-work at a fixed rate of time, and covered with velvet so that the pressure of the velvet against the paper and the glass chink, forming, as you see, the cover of the apparatus, may at once give the motive power, and exclude light from falling on any part of the paper except that which is immediately under the chink of light. The paper then passes under another friction-wheel, and the slack is taken up by a wheel driven by a counterpoising weight. The whole instrument is fixed for observation on the top of a sentry-box, which contains the clock and weights, and, lighted by yellow glass, forms an useful photographic chamber for work. The roof of this box, and consequently the top of the actinograph, is placed where no artificial shadow either from chimney or trees can impinge upon it. The paper I use is the albuminised paper of Sax; the sensatising solution, that of simple nitrate of silver, marking 50 on the argentometer; the time of sensatising is ten minutes. The fixing solution, after exposure, is that of two ounces of hyposulphite of soda to the pint, which ought to be regulated by an hydrometer; and the amount of immersion ten minutes, after which the actinogram is placed in running water one hour, and dried. By adhering to these proportions and times, comparative results may be made from different observations. The actinograms thus prepared are eighteen to twenty-six inches long, according to the time of year; and, when placed side by side, show, by the shades of dark and light, the amount of actinism present. The specimen I show you gives an idea of this; though, from the inefficient nature of the driving wheel for the slack, the results are jerky. This I propose to alter by connecting the supply and slack wheel together with a band, so that both shall be coincident in their work. The divided slip shows the effect of the paper similarly treated for various periods of time, from thirty seconds to five minutes, forming a kind of test-tint.

The principal fallacies are the action of heat, I conceive, on the albumen, darkening the paper even in the absence of actinism. This may be made nearly *nil* by protecting the top of the actinograph by a non-conducting medium. Secondly, the jerky action of the driving wheels is evidently due to faulty construction. I propose constructing one on the horizontal principle, using glass and the collodion process, so that positives may be printed off such observations, if required. I do not anticipate much difficulty in combating the sources of error I see in the machine at present. I only wish I had had time to have done so before I came here.

And now, *cui bono?* Were the observations only made at one place, the results would be merely a matter of interest in determining the amount of actinism in the different periods. It is possible that, like the pressure of the atmosphere, a diurnal tidal wave might be observed. But I anticipate results of more importance to medical observers than this, and more particularly to those who make the laws of health and the bettering the condition of the poor their more especial study. Comparative observations may throw some light on the value of our health-resorts, as contrasted with the crowded city. At Weston-super-Mare there is, to the most casual observer, an amount of light, certainly of visual light, far greater than that of the neighbouring towns or even villages—partly due to reflection from the water, but, independently of that, to the freedom from cloud and mist; and this is, no doubt, the case in many other places. Whilst I had the good fortune to hear the able and deeply interesting papers yesterday read in this section by Mr. Rendle and Dr. Morgan, it struck me most forcibly that the appalling death-rate of which we heard when statistics were taken from the dwellings of the poor alone, and which I am quite prepared to endorse, (perhaps not to so fearful a degree, but still sufficiently to make us think deeply on this subject,) in Bristol and even the poorer localities of Clifton, where I have worked as parish doctor,—it struck me, I say, that, though very much is due to bad air and overcrowding, not a little blame may be laid to the score of the want of a due proportion of light; and what little there is is reflected, and therefore in a state of polarisation. I am not prepared to say whether actinism is diminished thereby; but it will be an interesting subject for research. Under yellow glass, plants shoot up rapidly and weakly; vitality soon fails. A plant that, in the open air, would live two or three months, dies in as many weeks. In the courts and cellars of our towns, children are seen with big heads and small bodies; little shrivelled old men, precocious for the small span of their life, vitality rapidly failing. Is not this due in part to the want of actinism in effecting the vital functions of the blood, as the chlorophyll and other component parts of the sap cannot be properly elaborated under the yellow glass, where there is practically no actinism present? Englishmen have not now, as only a very short time back, to pay for the light of heaven in the shape of window-tax; but it may be well to consider how far it is well to sacrifice light to the ornaments of art and taste in building model cottages and almshouses with the lattice panes and cramped windows of a darker age. I feel convinced that not only do we want space for air and ventilation in any dwellings we construct for the better accommodation of the poor, but plain wholesome windows are a necessity; and, as a commercial speculation, they are far cheaper than bricks and mortar, to say nothing of the shadow-giving angles and dripstones of what an architect would call a well-broken building.

In bringing this subject before the notice of this Association, and especially before this section, I hope to see the good result of being assisted in these observations by others in different parts of the country. I shall spare no pains, during the remainder of the year, in bringing the instrument to a more perfect state and more easily workable condition; that should any wish to join me in observing, we may start in the beginning of the next year with every chance of having some results that may be of practical utility.

ABERDEEN NATURAL HISTORY SOCIETY.—The first meeting of the Society, for the season, was held in Marischal College, on the evening of November 17th. The following office-bearers were elected for the ensuing year.—President, Professor Nicol; Vice-Presidents, Dr. Ogilvie and Dr. Dickie; General Secretary, Mr. J. Roy; Secretary for Zoological Department, Mr. W. Stoddard Willis; other Members of Committee, Dr. Dyce, Dr. Struthers, Mr. Williamson, Rev. A. Beverly.

TWO CASES OF ABORTION,

WITH PERMANENT RETENTION OF THE PLACENTA IN THE ONE, AND GRADUAL DISCHARGE OF THE OVUM IN THE OTHER CASE.

By J. ASHBURTON THOMPSON, L.M., etc.

THE following cases of abortion fall under that embarrassing class of incomplete discharge of the uterine contents, unaccompanied by present urgent symptoms. There appears to be much difference of opinion as to the treatment of these cases; the notices of them in obstetric works are but cursory, and these conflicting in their *dicta*. Regarding the subject from one point of view, it is the *absence* of complication which embarrasses. Were we in attendance upon a case of this sort, accompanied by hæmorrhage, by long continued pain in the exhausted patient, or by putrescency, our course, that of emptying the uterus, would be sufficiently clear. But when, after the expulsion of a fœtus of three or four months, we find the secundines retained beyond the reach of the finger; the uterus contracting, indeed, but so contracting as to further withdraw and envelope them; hæmorrhage ceased; and the condition of the patient all that could be wished, if the abortion were complete—then, indeed, there is an absence of indication whether to interfere with the contracted organ and withdraw its contents, or to wait for the supervention of active symptoms. Each of these courses is open to serious objection; and perhaps this question resolves itself into one of the relative harm attendant upon action or expectancy. In weighing their respective merits, it must be remembered that our means of interference, though ample, are not unattended by danger. The introduction of an instrument is universally condemned; its point must, of course, pass beyond the guard of the finger. The introduction of the hand, or even of one finger, is regarded by Dewees and F. H. Ramsbotham as impossible; by Denman and D. Davis, it is not mentioned in the course recommended; by Churchill, though acknowledged practicable, it is considered admissible in exceptional cases only. Finally, Tyler Smith has never seen any ill result arise from the introduction of the hand into the vagina and a finger into the uterus; and recommends such an operation, but with the all-important qualification, "when the hæmorrhage is alarming, the case urgent, and the os uteri sufficiently dilated to admit the finger." On this side also are Priestley and Hall Davis. It may also assist us to know that the early placenta does not undergo putrefaction with the same rapidity as that retained at the full time; it may be retained for days or even weeks, and then, by some new uterine action, expelled almost unchanged. (F. H. Ramsbotham, 1867, p. 693.) In the extremely favourable cases of this description—*i. e.*, in those unattended by exhaustion, and, above all, by hæmorrhage—we may perhaps, therefore, be justified in trusting, for a time at least, to the powers of nature, and in waiting for symptoms. Such would be a return of hæmorrhage, of exhausting pain, or the appearance of putrid discharge with constitutional irritation, betokening dangerous absorption.

The above are some of the reasons which led to the adoption of the line of treatment followed in the adjoined cases. The expected symptoms never arose, and nature appears to have conducted the cases to a conclusion at least as satisfactory as could have been expected from more active interference.

CASE I.—E. S., aged 36, married, had had eight labours at full term. She had never miscarried. She last menstruated on January 7th, 1868. Having had a slight sanguineous discharge from May 21st to May 25th, she was delivered, after two hours of slight pain, of a fœtus of about four months, healthy, recently dead. The fœtus remained attached by the funis to the placenta, which examination showed to be just within the os externum. Pain continued from this time (10 A.M.) to 4 P.M., without in the least altering the position of the placenta. At the latter examination, the umbilical cord was separated. She continued to lose a small amount of blood up till 10 P.M.; when, the hæmorrhage decreasing, and uterine pain having ceased, notwithstanding the administration of ergot, it was determined not to attempt the extraction of the placenta, for the present at least. All that had passed since the morning had been carefully examined by me. A final digital examination at 10 P.M. showed the placenta to be still in that position to which it had been traced by following the umbilical cord—viz., just within the os externum; and the patient, having been told that the after-birth was retained, was warned to save all that passed for inspection. She was ordered small doses of liquor ergotæ, with dilute sulphuric acid, with a view of controlling hæmorrhage.

From the date of delivery, the lochial discharge continued up to June 10th, in quantity and quality perfectly normal, without ever becoming offensive, or containing any solid matter. Leucorrhœa then appeared, as is habitual with this patient. On June 25th, she menstruated. The quantity was normal, and almost ceased on the third day, but returned again, and continued up to July 2nd. By the 6th, all discharge ceased. She had then recovered her usual health, and has since then menstruated in the ordinary manner. The quality of the discharge negatives, in this instance, the supposition of a discharge of the placenta disintegrated; and, from the precautions taken, it is certain that no solid thing passed *per vaginam* after the examination on the night of the 25th of May.

CASE II.—M. F., aged 22, married three years, had one labour at full term at the end of the first year, followed by prolapsus uteri. She had never miscarried. The catamenia appeared as usual on May 14th, 1868. There was a slight sanguineous discharge on June 4th. Considerable hæmorrhage set in on July 29th, and continued up to August 1st, when she came under observation. Examination showed the os to be flaccid and dilatable, admitting the top of one finger to feel the ovum just beyond. She was ordered liquid extract of ergot and dilute sulphuric acid. The hæmorrhage abated considerably; and on August 5th the os externum was found dilated to the size of a florin, the ovum almost projecting into the vagina. It was not found practicable to encircle the whole ovum by the finger; and its attachments were so firm, while its own structure was so weak, that any attempt at traction must have resulted in its rupture. The hæmorrhage had now almost ceased. The dose of ergot was increased to forty minims every three hours, with a view of causing expulsion of the ovum; but, although pains followed each dose, its position remained unaltered. On August 8th, the os was contracted, and the ovum withdrawn altogether into the uterus, and only just perceptible to the finger. On August 9th, the discharge was only just tinged with blood, and was offensive. The uterus was injected with lotion of carbolic acid. The discharge continued up to the 14th; it was much as on the 9th. It then became less offensive, and quite ceased by the 22nd. On the 24th, leucorrhœa returned, as is usual to this patient. On August 28th, she was discharged well, and has since gone into the country.

Sept. 20th. The patient has returned, and has menstruated once while away. She is in perfectly good health.

Throughout the whole of this time, the general health was good. Only a little pyrexia was observed at the onset of the offensive discharge, which, however, quite ceased in twenty-four hours.

The circumstances of this case seem to justify the supposition that this was a case of retention of the ovum, terminated by its gradual discharge in a state of disorganisation.

Delamere Street, W.

CASE OF SPASMODIC CLOSURE OF THE ŒSOPHAGUS.

By JOHN F. BOYES, M.B. Trin. Col. Dublin.

HAVING seen some remarks in the JOURNAL "On Stammering with other organs than those of speech," by Mr. Paget, I am induced to give a short account of a case of spasmodic closure of the œsophagus, in a female aged 74.

The patient, who was in good robust health up to last December, suddenly and quite unaccountably experienced a difficulty in swallowing on some occasions. The place where she felt the sensation of closure was more on the left side, at the root of the neck. These symptoms gradually increased, and when I saw her, three months from their first appearance, she was becoming gradually emaciated from actual starvation. The œsophagus would remain closed for hours, and if she attempted to swallow anything, even liquids, during this time, all was ejected in a few minutes. Suddenly she would find her throat opening and then called for food, both solid and fluid, which she eagerly took and retained. The œsophagus on these occasions would only remain open about half an hour, and this two or three times a day. Sometimes it would not open for an entire day, after which she became much exhausted, but would again regain strength after partaking of food. When the throat was closed she would sometimes spit up large quantities of saliva, often a pint; and, during any severe attack, the respiration would sometimes have a croaking sound in the throat. The symptoms gradually became more severe, the spasm continuing longer and the throat only remaining open a few minutes. Now, if she did not get something to swallow quickly, the throat would again close, and she would have to wait till it reopened. She died in one of these attacks, which kept the throat closed two days, during which time she had no nourishment. At no time did she complain of any pain in the throat. There was no swelling or hardness. She never ejected anything but what appeared to be saliva, perfectly clear and without any taste. There was no appearance of any malignant disease. No medicine seemed to give any relief, not even the valerianates. I strongly recommended beef-tea enemata, but she would not have them. I did not see her for three weeks before her death, but up to that time she seemed in good spirits, especially if the spasm had not lasted too long. She could feel when the throat was opening and then immediately called for food. Always at night she had something ready to take as soon as the opportunity offered.

OBSTETRIC MEMORANDA.

[UNDER this head, we shall, from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice; for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record, to relate them with the utmost brevity, and equally to condense any appended remarks.]

PELVIC HÆMATOCELE APPEARING AFTER DELIVERY.

By A. B. STEELE, Esq., Lecturer on Midwifery, Liverpool Royal Infirmary School of Medicine.

A MIDWIFE of much experience requested me to visit a patient, whom she had recently delivered, to relieve her from retention of urine. The woman was of middle age, and mother of several children. Her labour, although a breech-presentation, was neither difficult nor protracted; the child was born alive, and she had no unfavourable symptom, except the inability to pass urine. She was relieved daily by the catheter by my pupil for three or four days; but, the retention continuing, I visited her for the purpose of a more minute investigation. I found a large fluctuating tumour springing from the left wall of the vagina, filling the canal completely. An exploratory puncture with a tenotomy knife gave vent to a sprouting stream of thin fluid, resembling venous blood, of a highly offensive smell. A probe passed into the opening failed to reach the bottom of the cavity. The next day I enlarged the opening and evacuated a large quantity of the same kind of fluid as before. The swelling was much decreased in size, and she was able to pass urine. In a few days I found the tumour had entirely disappeared, the patient informing me that the swelling had burst suddenly and "two quarts" of fluid had then escaped. I presume this to have been a case of pelvic hæmatocele, originating probably from a varicose condition of the veins of the Fallopian tube or broad ligament. Although numerous cases of this affection are recorded, I am not aware that it has ever been noticed by authors as occurring in connection with parturition.

RUPTURE OF FALLOPIAN TUBE(?): PERITONITIS: RECOVERY.

By G. G. STANGER, M.R.C.S.E, Consulting Surgeon to Nottingham Dispensary.

MRS. B., aged 34, married eleven years, had one child ten years ago. She enjoyed moderately good health until the present attack, which occurred suddenly on the 27th of August, 1868, whilst she was in the water-closet. She had felt a slight pain in the abdomen which induced her to go to the closet for relief, and whilst she was there the pain suddenly became most violent, accompanied with alarming syncope. I saw her in a few minutes and learned that she was about ten weeks advanced in pregnancy, and that she felt, during the act of defecation, "as if something had given way in her inside," and immediately the pain became most agonising. When I saw her she was bathed in a cold clammy perspiration, with a rapid thready pulse and all the symptoms of extreme collapse. I had her removed to bed. The abdomen seemed rather distended and acutely sensitive to the touch. There was no discharge from the vagina, and an examination *per vaginam* and rectum afforded no explanation of the symptoms. I ordered hot fomentations with turpentine, and administered repeated doses of brandy and opium to relieve the pain and syncope.

Dr. Ransom and Dr. Robertson saw her with me in the course of the morning, and we all agreed that the symptoms were those of perforation or rupture of some internal organ, and that a fatal result seemed inevitable. I saw her repeatedly during the day, and towards midnight was pleased to observe some indications of reaction. The pain was still very severe and the sickness most distressing, but the pulse had become more distinct and the cold sweat had given place to a comfortable warmth. For several days her condition remained very precarious. The catheter had to be passed repeatedly. The skin became deeply jaundiced, apparently from the extension of the inflammation to the liver. On the third day there was a discharge from the vagina of a brownish colour and very offensive odour. On the fifth day the bowels were relieved by an injection—the opium having been continued up to that time. She declared that she could feel something loose in her belly and afterwards could put her finger on the spot where she believed it to have become fastened. The uterine discharge continued for two or three weeks, and for a long time she felt so much soreness and pain in the abdomen that she could not bear the slightest movement, but she gradually recovered and on the 9th of October was able to leave home.

I have not been able to meet with a similar case to the above where recovery has taken place. Dr. Davis, in his excellent work on Obstetrics, has collected a considerable number of cases of tubal and ovarian gestation; and, in some cases where they have grown to the full period, the child has become encysted and the patient has survived for many years and even borne children. A remarkable case of this was related in a recent number of the BRITISH MEDICAL JOURNAL by my esteemed friend Mr. H. Ewen; and, I myself saw one some years ago where the fœtus was extracted seven or eight years after pregnancy—through the bladder. But in all the cases referred to by Dr. Davis, where rupture took place at an early period, death was the result. I attribute the favourable issue of this case, in some degree, to a strong constitution, and partly to the persistent use of small doses of opium and perfect rest of the bowels for several days.

REVIEWS AND NOTICES.

A SYSTEM OF MEDICINE. Edited by J. RUSSELL REYNOLDS, M.D., F.R.C.P.Lond., Physician to University College Hospital, etc. Vol. II, containing Local Diseases. 8vo. Pp. 990. London: 1868, Macmillan and Co. (Second Notice.)

IN our first notice of this large volume, we endeavoured to give an idea of the animus pervading it, by drawing a sketch of the treatment advised by each writer in the disease committed to his pen, and pointing out how far this was sanctioned by the pathology he had adopted, in respect of the General Diseases of the Nervous System. We propose to do the same now for the rest of its diseases—Partial Diseases, or those where the function injured can be assigned to a given part of the system.

In Simple Meningitis, Dr. RAMSKILL advises the adoption of the traditional practice of venesection to syncope, repeated as often as the symptoms return, and followed by the application of leeches behind the ears and to the temples, compression of the carotids, hard purging, mercurialisation, icing the head, and blistering the calves, until collapse and coma supervene; when stimulants and ammonia may take their place, and when a cap of blistering ointment applied over the whole skull has been known to rouse the patient. The termination of the disease is usually in death.

Tubercular Meningitis is described by Dr. GEE as an inflammation of the cerebral membranes, when excited by the acute deposit of tubercle, which is almost certainly fatal. Under that circumstance, he has "no doubt that leeches, active purging, blistering, ulcerating, and such-like measures, hasten the advance of death"; and, in hopes of having made a wrong diagnosis, he would support the patient with food.

The difference between the two physicians is evidently one more of natural disposition than of pathology. Both are excited by the same view of an impregnable fortress; the one to make violent exertions, the other to halt.

The articles on Hæmorrhage, and on Adventitious Products in the Meninges, afford little opportunity for comments on therapeutics.

Congestion of the Brain is a highly important complaint, because very amenable to treatment, and Dr. REYNOLDS evidently feels the responsibility of discussing it. His sentences have that epigrammatic style which is the result of thoughtful polish. He points out that there are two practically opposite states of body under which congestion may occur, general plethora, and vascular obstruction through weakness. As a specimen of the first, we may suppose a man of middle age, who has overstrained himself, or placed his head in some dependent position, attacked by violent convulsions, with turgescent skin, bloodshot eyes, and full labouring pulse. In such a case, Dr. Reynolds would recommend venesection to eight or ten ounces. Even when, with general weakness, there is a hot head and flushed face, he would not object to cupping the nape. But when these two symptoms are absent, and the pulse feeble, small, or irregular, even a small abstraction of blood might be followed by the worst results. He advises icing the forehead and putting the extremities in hot water. After the temporary congestion of old people, he finds stimulants useful. This is in complete accordance with the

Pathology of the Disease, written by Dr. BASTIAN, in which the idea is adopted of a true excess in the quantity of blood in the brain, in opposition to the long held views of Monro, Abercrombie, and Reid. The anatomical objections to this theory of true excess seem removed by the recent discoveries of Robin and His, who have demonstrated a series of perivascular lymphatic sheaths, inclosing spaces round the cerebral vessels, and seemingly adapted specially to admit of variations in their fluid contents.

The management of Softening of the Brain is, of course, preventive only. That which Dr. REYNOLDS advises consists in: 1, the maintenance of an even temperature throughout the body; 2, frequent small meals; 3, easy and pleasant occupation for the mind; 4, regular habits of moderate excretion, equally balanced through all the emunctories; 5, the warding off faintness, by having a glass of stimulant close at hand, to be given to the patient on the first appearance of paleness; 6, when there is headache or drowsiness, diuretics may be given; 7, when there are convulsive symptoms, bromide of potassium.

It is clear from this that the author looks upon softening, white, red, or yellow, as a lesion of an atrophic character, and doing its mischief by reason of this character. Without denying the occasional occurrence of other origins, the practitioner will regard it as due to obstructions of the circulation in every case, with the rarest possible exceptions.

The treatment of Adventitious Products in the Brain, being simply that of the different dyscrasiæ on which they depend, presents nothing special for remark; except, indeed, a practical hint that, where there is a suspicion of previous syphilis, it is wise to give large doses (up to forty grains) of iodide of potassium, which may relieve menacing symptoms depending either on nodes of the dura mater or gummata of the nervous substance.

The management of Apoplexy and Cerebral Hæmorrhage, in the essay so headed, is divided by Dr. HUGHLINGS JACKSON, according to its title, into that of the apoplectic condition, and that of the effusion of blood in nervous tissue. For the first, he keeps the patient as quiet as possible, and puts a drop of croton oil on the tongue. For the second, if the temperature of the body be above 100°, the respiration and circulation disturbed, he thinks nothing but purgatives useful; if the temperature be normal, the pulse not very rapid, and the respiration even, he thinks blood-letting likely to relieve "the system"—a vague term, leaving us in some doubt about the author's opinion as to the actual action of the remedy under the circumstances. We would take leave to suggest, that the formation of a clot is a gradual process, taking perhaps days, and that the shock of bleeding may arrest it in mid course. We suspect this has not occurred to the author, from his using the term "effusion of blood" as synonymous with "effused blood"—in our view, a very different thing.

The article on Abscess of the Brain contains a tabular record of the seventy-six reported cases. It would be better placed in the *Medico-Chirurgical Transactions* than in a general work on medicine.

The subject of Diseases of the Spinal Cord is in the hands of Dr. RADCLIFFE. He himself treats Spinal Meningitis by rest, opium, iodide of potassium, and the local application of ice; but he allows he might, in some cases, easily be persuaded to employ the old antiphlogistic mercurialisation. We trust he will not find a persuader. Myelitis and Congestion he treats with iron, and with food and wine to improve the nutrition. For Tetanus, he would administer chloroform inhalation; and give very large doses of alcohol, to the extent of producing, if possible, intoxication—in fact, the mode of procedure which has so unexpectedly succeeded in some cases of snake-poisoning. For Spinal Irritation, he would give quinine, steel, cod-oil, and phosphorus. In short, all the separate contributions show the inclination of the author to support that analeptic theory of treatment which he set forth as indicated by the existence of pain, in his Lumleian Lectures of 1862.

The capital article by Mr. NETTEN RADCLIFFE on Epidemic Cerebro-Spinal Fever, belongs properly to the first volume. The information contained in it is, however, more recent than the publication of that part of the work; so, in order not to be lost, it is forced in under the title of Meningitis. Though foreign to the purpose of this review, we notice, in regard of its practical importance, the suggestion of Dr. B. W. Richardson, that possibly the disease may be a poisoning by organic growths in decayed bread-stuffs. This question can only be solved by a general diffusion of the idea before the occurrence of another outbreak of the epidemic.

The first ten pages on Diseases of the Nerves, "Neuritis and Neuroma", would seem, both from a pathological and therapeutical point of view, to have gone astray from some good treatise on Surgery. We should advise Dr. REYNOLDS to exchange the section with Mr. Holmes for several in his *System* which are decidedly medical.

The therapeutical measures which, in Neuralgia, are commended by Dr. ANSTIE, may be divided into: 1, Constitutional; 2, Stimulant Narcotics; 3, Local Applications. Among the constitutional, the most important is animal oil, in the shape of both food and medicine. Quinine, also, is useful, in cases of malarious origin, in large doses, and in smaller doses in non-malarial face-tic; arsenic in a nearly as extensive, but rather larger, class. In syphilitic cases, iodide of potassium and bichloride of mercury. Iron in anæmic cases only. To narcotics, Dr. Anstie assigns great power, not only of palliating, but of curing, neuralgia; and he finds the most powerful of all, morphia given in the hypodermic way. He finds muriate of ammonia an excellent stimulant remedy in migraine and clavus, and in some forms of intercostal neuralgia. Ether, without influence in superficial, is supremely useful in visceral neuralgias; *e.g.*, in angina pectoris, in uterine and ovarian neuralgia. Among local remedies, blisters bear away the palm. They should be applied close to the spine, as nearly as possible opposite the intervertebral foramen from which the affected nerve issues.

In reading these details, one cannot fail to anticipate that Dr. Anstie holds to a central, in preference to a peripheral, origin of the functional and organic changes in neuralgia, and that these changes are in the direction of debility.

The succeeding tractates by Dr. BEGBIE, on truly Local Affections of the Nerves themselves, Paralytic, Spasmodic, and Anæsthetic, institute a careful and condensed exhaustion of a subject previously narrowed by former essays in the same volume. The last slice is cut away by the editor's on Torticollis.

The rest of the volume is occupied by the first detachment of diseases of the digestive system—namely, Diseases of the Stomach, by Dr. WILSON FOX. Of these, the most important, because the most common, are the functional defects described here under the titles of Atonic Dyspepsia and Neuroses. In the former, the drugs most forcibly recommended by Dr. Fox are strychnia and quina; in all cases the first, and the latter where it does not cause headache or nausea. Perhaps we may be allowed to suggest, that the addition of a little chloric ether prevents these inconveniences. Light bitters to increase the appetite; dilute alcohol, ipecacuanha, and alkalies, to increase the secretion of gastric juice, should be given, in suitable cases, before meals; direct adjuvants to the gastric digestion, of which the chief are mineral acids and pepsine, during or after meals, so as to mix with the food taken. For the Neuroses, or various forms of nervous disturbance of the stomach, the author finds a modification, according to individual circumstances, of the same plan available. Their cure under this management affords valuable evidence of their true nature. Of special indications, neuralgic pain indicates the use of carbonate of iron, exhaustive gastrodynia the administration of opium in tonic doses; vomiting is advised to be treated by rest, opium, effervescent cold drinks. The milder cases of the latter affection may sometimes be cured by hydrochloric acid, with or without strychnia, given before meals.

The acuter Catarrhal Inflammations of the Stomach are distinguished by thirst, a white tongue, with red papillæ, and indigestion of food. The well known condition of early phthisis is a typical instance. The treatment recommended is, rest obtained by temporary abstinence and thin liquid diet, leeching and fomenting the epigastrium, mercurial purgatives, aperient enemata, and sedatives, especially ice, opium, and carbonic acid (in effervescing draughts). In chronic catarrh, the author gives sedatives, especially bismuth, and astringents, such as nitrate of silver, alum, tannin. Hæmorrhage of the Stomach, Dr. Fox treats with the usual hæmostatics, among which he gives the preference to acetate of lead. In some cases, when the hæmorrhage proceeds from congestion, through obstructed venous circulation, say of the liver, advantage is gained by purgatives; but these are dangerous should there be an ulcer or cancer. In all cases, cold acts well as an astringent.

The remaining articles, Cancer, Tubercle, Rupture, etc., of the Stomach afford no scope for remarks on therapeutics.

Here we draw breath, *velut conviva satur*, with thanks to the ruler of the feast, and ask ourselves, reposing in post-prandial content, Has there been any distinctive prevailing taste running through all the dishes? has there been any *consensus* of opinions which would stamp the work as published in 1868? We must ask the reader finally to answer for himself; but, in the meantime, we would suggest that there is, and that it consists in a growing feeling, sometimes boldly expressed, sometimes timidly shadowed forth, sometimes fought against out of respect for tradition, sometimes oozing out in a cold scepticism, sometimes glowing with hope of curing the incurable—a daily increasing impression that we and our fathers have long been on the wrong path in our modes of search for means of cure; that allopathy, homœopathy, and all the rest of the theories of specific therapeusis, are *ignes fatui;* that physical agents act essentially on the sick, just as they act on the healthy body; and that the true use of these physical agents by the physician in sickness is the restoration of some deficient functions, in the absence of which functions the essence of disease consists.

ABSTRACTS OF INTRODUCTORY ADDRESSES DELIVERED AT THE DUBLIN MEDICAL SCHOOLS.

SESSION 1868-69.

CITY OF DUBLIN HOSPITAL.

DR. J. HAWTREY BENSON, Physician to the Hospital, delivered the Introductory Clinical Lecture on November 3rd. After some preliminary observations, the lecturer said:—The present is essentially an age of progress and enlightenment. Daily we see empiricism uprooted, and the meshes of old and groundless theories rent into fragments by the spirit of inquiry and criticism. Science is rapidly outgrowing her weaker sisters, Literature and Art. Every year it is becoming less true that

> "Science moves, but slowly, slowly, creeping on from point to point."

For her strides are now gigantic, and by no conjecture can we set bounds to her possible conquests. How lately in the world's history was it that Galvani, an Italian physician, observed that the contact of certain dissimilar metals with certain parts of a frog's leg produced movements in the latter, or that the genius of the immortal Newton unfolded the compound nature of light; yet what are the results even now? Though the fruit of these seeds may not yet be fully ripe, so rapid a growth has taken place, that we can now transmit our thoughts with unerring truth, with the rapidity of lightning, through thousands of miles of ocean, along the awful solitudes of Atlantic's beds; or, leaving earth and all its mimic storms behind, we take our flight into the regions of immensity, and, from the nature of their light, as revealed by the spectroscope, calculate the rapidity of motion of what are usually called the fixed stars, and analyse the very ingredients of their atmosphere, or determine the physical constitution of the nebulæ, more leagues away, ten thousand times, than there were seconds since the creation of man. In the domain of medicine, too, Science has shown herself able and willing to work with no sluggard's hand. Dr. Benson here referred to the impetus lately communicated to the profession by the introduction of such scientific instruments as the laryngoscope, ophthalmoscope, endoscope, sphygmograph, etc.; and proceeded: In a memoir lately presented to the Academy of Sciences, M. Bouchut shows that the ophthalmoscope will often enable us to ascertain the existence of remote diseases of the nervous system, by detecting certain dependent lesions of circulation, secretion, and nutrition, in the eye itself. Modern investigation is fast leading us to a belief in the cryptogamic origin of many diseases. The opinion is now gaining ground, that the cause of the malarious fevers of hot climates, of dysentery, yellow fever, and cholera, may be traced to the introduction into the system of different species of fungus, or of infusoria. During the late fatal epidemic of fever in the Mauritius, the researches of Dr. Schmidt demonstrated the presence of minute plants of a fungus along the whole of the intestinal canal of patients who died of the disease; and these fungoid growths were found, by the aid of the microscope, to be the countertypes of similar organisms discovered in the Grand River, which ran through the infected district. The time is, perhaps, not very remote, when further investigations may show that small-pox, measles, and scarlatina, as well as ordinary typhus and enteric fevers, have a similar origin. In support of this view, I may mention that Professor Hallier, Docent A. Zuerns, and Keber of Dantzic, have all observed peculiar organic bodies, endowed with powers of active movement, in the lymph of certain forms of variola.

The lecturer then spoke of the treatment of so-called zymotic diseases by the use of antiseptic or septicidal agents, and of the results obtained by Polli of Milan, Pasteur, and M. Poulet. He then compared the value of chloroform with that of Richardson's new anæsthetics; and, after having touched on a few other matters of general interest, said:—But time would fail me, were I to attempt to refer now to the many other advances of knowledge made lately in the profession. And when we glance at the recent explorations into the secrets of the nervous system by electrical agencies, through the labours of Duchenne de Boulogne, Lockhart Clarke, and others; and when we consider the late researches into the origin of tubercle by Sanderson, Villemin, and Wilson Fox, and the inquiries into the physiological action of medicinal and poisonous substances, and into the nature of infection and its relation to zymotic diseases,—we see that there is still a large field of inquiry open to us; and, as some new discovery or invention daily rolls away the cloud that hung about the foreground, we see the landscape gradually opening upon us, and exposing to our view the vast extent of the untravelled plain that lies before us. Each of us may contribute our mite to the fund of discovery and improvement, which has for its glorious object the alleviation of human suffering. Each of us may yet perform "some work of noble note", and leave our "footprints on the sands of time".

After a few observations relative to hospital work, and the advantages afforded to students at the City of Dublin Hospital, Dr. Benson continued:—There our staff of medical officers may boldly challenge comparison with that of any other hospital. Four of them have been Presidents of the College of Surgeons; two of them Presidents of the College of Physicians; and, of these, one had the singular honour of being President of both Colleges—a distinction never before conferred on any member of the profession. Most of them are, or have been, Professors in the College of Surgeons—Professors of Practice of Medicine, of Practice of Surgery, of Military Surgery, of Forensic Medicine, and of Midwifery. Two are Demonstrators of Anatomy; and one of our consultants is the distinguished Professor of Chemistry in Trinity College. So that they have all the branches of the healing art and the collateral sciences familiar to them as household words. All of them are well practised in clinical teaching, some as long as thirty-six years, during which they have been accumulating experience, and acquiring a facility in communicating their knowledge. Experience in the sick-room has been said by an eminent writer to be merely "a collection of facts" stored up in the mind. Now it seems to me to be that and much more. It implies as well, I think, a certain increase of our natural facility of association—an acquired susceptibility, as it were, of receiving impressions of a particular kind, and of selecting from them those which should chiefly influence the judgment, and of giving to each its due weight, so that correct premises may be laid down, and that, from them, conclusions may be correctly drawn. But this facility is not to be gained in haste. Its acquisition is a long and painful process, by which the mind must be rendered susceptible, and yet so tempered that the graving-tool employed may leave a clear and permanent impression on it. We must ever be mindful of the fact that ours is not one of the exact sciences; and that, in nearly all our clinical investigations, our deductions must be drawn from evidence which consists of probabilities; that, though such evidence admits of degrees, ranging from the lowest presumption up to the very highest moral certainty, it is merely *probable evidence*, and, as such, *proves* nothing. And, though an accumulation of strong probabilities may almost amount to a proof, we must be cautious how we set down as *demonstrated* those conclusions which are drawn only from probable evidence. We must also keep before us the mutual relations and the comparative value of *theory* and *practice*, lest we should fall into the mistake of neglecting, or of giving undue importance to, either. While ever remembering that our one grand object is to cure disease and to alleviate human suffering, we must acknowledge that the theorist has an advantage over the purely practical man in difficult and uncommon situations—in dealing with new and untried combinations of circumstances—and is far more likely to enrich our art by new inventions, and to elevate it by substituting rationalism for empiricism. But there his superiority ceases. In matters of detail, he is quite at a loss; for, as "all the elements of practical skill are to be acquired only by habits of active exertion, and by familiar acquaintance with real occurrences," so it is in the actual scenes of the sick-room alone, and amidst the details of bedside management, that we can learn to treat disease. "Expert men," says Lord Bacon, "can execute and judge of particulars one by one; but the general counsels, the plots, and the marshalling of affairs, come best from those that are learned."

At a time like the present, when the glory of England's might is still ringing in the ears of the nations, let *us* prove that "Peace hath her victories no less renowned than War." Let us venture boldly, but with caution, into the undiscovered ocean of truth, upheld by the arm of integrity, and guided by the compass of experience and philosophy, linked with revelation. Let not the drowsy wave of apathy creep through our sluggish veins; but, in the words ascribed by our poet laureate to the wily King of Ithaca of old, let us

> "Push off, and, sitting well in order, smite
> The sounding furrows."

Let it never be said of us,

> "Our sails flap idly when our busy prow
> Should grate the golden isles."

But let our password ever be, *Onward;* and our motto, *Miseris succurrere disco.*

MATER MISERICORDIÆ HOSPITAL, DUBLIN.

Dr. Henry Curran delivered the introductory clinical lecture on November 4th. He said that there were two sources from which the students might derive instruction—the Hospital and the Medical School; and earnestly urged them to avail themselves thoroughly and regularly of all the advantages presented by them. The means of acquiring knowledge were also two-fold—oral lectures and personal observation: and, while they should be diligent and regular in attendance on lectures, they would probably forget what they had heard, unless it were impressed on them by what they witnessed. The aphorism still remained true:

> "Segnius irritant animum demissa per aurem,
> Quàm quæ sunt oculis subjecta fidelibus."

The lecturer recommended his hearers not to confine their attention to medicine, but, by seeking information and instruction from every legitimate quarter, to counteract the effects often produced by too closely following one pursuit. He recommended an acquaintance with general literature and science, as the best means of checking that narrowmindedness which was the result of allowing the intellect to be completely absorbed in any one study, except that of religion. In speaking of religion, he alluded to the sisterhood connected with the Hospital; who, completely absorbed in the service of their Heavenly Master and the suffering poor, had sacrificed every selfish thought and worldly aim on the altar of religion and charity. They should not regard their professional education as completed when they had succeeded in satisfying the examining bodies. No mistake could prove more fatal to their own interests, or to the interests of those who might place confidence in their skill and competency. They must be always learning, always educating themselves. It would be their duty to do for themselves what had hitherto been only imperfectly done for them. In the discharge of the trust which they had accepted, they would be always educating themselves: and the responsibilities of this position would be the more easily met, the more they had availed themselves of the opportunities placed within their reach as students. The eye, the ear, and the hand, might receive early and careful training in the early stage of education: otherwise they would be comparatively valueless when lives depended on the precision of their action. The mere possession of professional knowledge was not sufficient; as it alone might be often found as useless to save the life of a patient as a theoretical knowledge alone of swimming would not enable its possessor to save the life of a drowning man. The lecturer pointed out especially the necessity for practical training and promptness of action which was likely to occur to those who should enter the public service. They should make themselves thoroughly acquainted with every department of educational studies in their most minute and apparently most trifling details. The labourer was worthy of his hire; but whether, so far as the public service was concerned, he received it just now, was another question. But Dr. Curran assured the students, the surest means of securing the acknowledgment of just rights was to rise in public estimation by the possession of those qualifications which could command it.

The lecturer earnestly advised the junior students to bestow particular care from the first on Anatomy; it warned the surgeon of the dangers which surrounded him, and inspired him with confidence in operating. Anatomical knowledge could never be too minute; and he warned his hearers against supposing that an adequate knowledge could be obtained from books. He did not object to private teaching, but to the abuse of it, which compelled the pupil to receive as incontrovertible dicta stereotyped answers to stereotyped questions, without the exercise of his judgment. Physiology was also recommended to be studied in connection with Anatomy; an accurate knowledge of it was necessary for the treatment or the prevention of disease. The students were warned, however, not to engage in the study of physiology with any unreasonable expectations of the results to be derived from it. The importance of a knowledge of Pathology was next pointed out, as enabling the practitioner to detect disease under its numerous forms. Surgery could only be efficiently studied by regular attendance on hospital practice and observation of cases. In this way they would acquire that practical skill and habit of prompt action, the necessity for which was shown in cases sometimes occurring in practice. Three-fourths of the cases with which the young practitioner would meet were probably medical; and hence it was necessary to study the practice of medicine, by attending closely to the various phases presented by disease, and their modifications in various circumstances. Materia Medica and Pharmacy, Midwifery, Botany, Chemistry, and Medical Jurisprudence, were also alluded to.

Among the facilities for instruction afforded by hospital practice, Dr. Curran placed foremost the opportunity of enabling the student to make the diagnosis of the different forms of disease. The habit of forming a correct diagnosis was one at the possession of which the students should chiefly aim; and they were recommended to avail themselves of both the in-patient practice of the hospital and the outpatient dispensary practice. It was at the bedside, however, that the student of medicine would find the greatest source of interest.

The lecturer next alluded to the fact that the hospital was not only a school of medical science, but, as shown in its nurses, a field for the exercise of mercy and charity. There was in Dublin a great want of hospital accommodation, especially for infants labouring under typhus fever—a disease which the lecturer held to be closely allied to the exanthemata. In infants, the disease was mild and harmless to the patient, but by no means so to the adults who came into contact with them. Typhus was endemic in Ireland; and it only remains to deal with it as it was found. If for safety alone the public ought to assist the medical profession in preventing or at least in checking its ravages. Though, as above said, mild and harmless in children, when appearing among them, it rarely failed to attack grown-up members of families, and thus spread its influence through the neighbourhood; and this extension was favoured by the insalubrious condition of the dwellings of the poor. In one street alone, during a late epidemic, Dr. Curran had attended upwards of fifty patients. More than a dozen were in one house containing only two rooms. As it was not possible to supply the true remedy, spacious and well ventilated dwellings for the poor, hospital accommodation ought to be provided on the most improved sanitary plan. It was of the utmost importance to separate from the other members of their families persons suffering from contagious disease, such as typhus. Such accommodation the Sisters of Mercy were engaged in providing by the extension of the hospital; and the lecturer had no doubt that they would meet with the cordial approval of a discerning and charitable public.

Dr. Curran alluded to the idea entertained by some subscribers, that they had a right to have as many patients admitted as they chose. It was at times impossible to admit all the cases recommended; the medical officer must be guided by one consideration only, the urgency of the case. The means which the hospital had at its disposal were limited in comparison with what it was hoped they would soon become. On the completion of the new wing, there would be increased accommodation for many cases; and the medical officers would then be able to comply to a greater extent with the requests of those who recommended patients. Separate wards would be assigned in the new wing for typhus fever and other contagious diseases.

In his concluding remarks, the lecturer urged the student, while admitting personal advancement as a legitimate object of ambition, to adhere strictly and severely to honourable principles. One opportunity of advancing themselves they should never neglect—namely, in the hearts and affection, the respect, esteem, and love of all with whom they might come into contact. They should not be discouraged by apparent neglect or by other difficulties, but should follow the advice given nearly two thousand years ago

> "Tu ne cede malis; sed contra audentior ito,
> Quà tua te fortuna sinet."

LEDWICH SCHOOL OF MEDICINE, DUBLIN.

Dr. Barton delivered the Introductory Lecture, on November 2nd. He began by congratulating his hearers, and expressing his own gratification, at Dr. Ledwich's restoration to health and vigour, after the serious illness which alarmed his friends last winter. The subject of the lecture was, "The Medical Profession, its aims and object: what it demands of those who seek to enter it, what it gives to those who practise it." The just and noble object of the profession was first dwelt on, and contrasted with the purely selfish object of mere self-aggrandisement. The importance of preliminary education was then urged, and then special or professional education was reviewed in all its parts, beginning with anatomy, the importance of a thorough acquaintance with which was forcibly urged and illustrated. The arrangements in the school, whereby a thorough efficiency in anatomy was obtained, were explained; and a well-merited eulogium passed upon the entire anatomical staff, consisting of Drs. Ledwich, Mason, O'Leary, Glanville, Bright, Corry, Ward, Kilgariff, and Robinson. Referring to the practical chairs of surgery, medicine, and midwifery, Dr. Barton gave it as his opinion that these courses would be much better delivered in the hospital, where references to examples of the diseases or injuries described can be made; and the lecturer then pressed the advantages both of systematic and clinical instruction. Dr. Barton then referred to the election of Dr. Moore to the King's Professorship of Medicine, and the loss the school had sustained by this; while they still rejoiced in the well-earned promotion of Dr. Moore. Dr. Little and Dr. Evans together are now to undertake the course in Practice of Medicine. Dr.

Barton remarked: "In his (Dr. Moore's) successors, Dr. Little and Dr. Evans, you will find gentlemen eminently qualified, able, patient, and kind instructors, who will spare no trouble to themselves which can in any way advance your interests. I congratulate you upon this appointment." The importance of hospital attendance was next fully explained and enforced. The regulations of all the licensing bodies regarding the examination in practical medicine and surgery were then explained, and the conclusion drawn, that it has now become absolutely necessary for the student to devote himself to gain a practical knowledge of the diagnosis and treatment of disease. The prospect held out by the medical services of the army and navy were then explained, and the advantages and drawbacks of practice in the colonies and at home were fully weighed. Dr. Barton concluded as follows:—"And now, in conclusion, gentlemen, let me remind you that your future success, in whatever branch of professional life you may enter upon, will mainly depend upon the use you now make of the brief term of your studentship. You have opportunities now which, if neglected, can never be recalled; but, if taken advantage of, will give a tone to your whole life. Determine to work steadily from the first. You will soon be deeply interested in your profession; and your work will become a pleasure of a high order. You will pass the prescribed examinations with credit, and enter upon the practice of our art with every prospect of being useful to your fellows, while you gain an honourable position and independence for yourselves. And never forget that there is something higher and better than success, and without which the greatest success would be failure: I mean the consciousness of having done your duty. Useful work, well done, is in itself a happiness. In our case, the performance of our duty has the additional pleasure of doing good to our fellow-creatures. The great men whose names adorn the roll of our profession were animated with this motive. It is related of Mr. Pott, that, when seized with his last illness, and immediately before his death, he said to an intimate friend, 'My lamp is nearly extinguished; I hope that it burned for the benefit of others.'"

NEW INVENTIONS, &c.,
IN
MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SPIKING AND Co.'s GRANULATED MALT FOOD.

MESSRS. SPIKING and Co., of Dover Street, have prepared a Malt Food containing all the constituents of their excellent malt biscuits, of which we recently had occasion to speak favourably, as valuable in the nursery and for invalids. In the present form, the ingredients are more conveniently prepared for use, and they are not less palatable and nutritious. It is a kind of food which is often found to be digestible and easily assimilated by children and by dyspeptics, when others are rejected, and is a valuable addition to the dietetic resources of the physician.

DUNN AND HEWETT'S CARACCATINA.

AMONG the most recent additions to the varieties of preparations of cocoa-nut now before the world, is one in which the fatty matter is carefully extracted by Dunn and Hewett, and the cocoa presented in a form which is easily digestible, and in which it retains to an unusual extent its fine aroma. The experience of these well established makers has enabled them to produce a cocoa, of which the most critical amateurs must approve. There is no beverage which is more highly recommendable than this; and freed, as it is, from fatty matter, it is likely to be acceptable to the most delicate digestions, as well as agreeable to fastidious palates.

PRESERVED MILK.

SIR,—On several occasions, I have noticed, in the JOURNAL, references to various kinds of preserved milk. Some months since, the milk preserved by the Anglo-Swiss Company was mentioned in your columns. I recently tried it on the voyage out to South Africa; and can speak of it in terms of the highest praise. In the very warmest tropical weather, it keeps fresh and pure; and bread and milk made with it is as good as if it came from a farm-house in the country. I am confident it will soon supersede all other kinds of preserved milk, all of which have a somewhat unpleasant "twang", from which it is free.

I am, etc., CHAS. WM. BROWNE,
District Surgeon, Stockenstrom, Cape Colony.

EXTRACTUM CARNIS.

THIS substance has already become an article of diet of considerable importance. It is a solid, or rather a very thick pasty substance, consisting of the soluble part of flesh meat. By means of it, an enormous quantity of *potential* broth or beef-tea can be put into a very small compass. The specimens of it that we have examined are remarkably soluble in water (even in cold water); and a few moments suffice to make a basin of excellent broth out of a very small quantity of the solid extract, treated with a sufficient quantity of boiling water. The immense stores of flesh-meat which are running to waste in Australia and in South America, whilst they are so sadly needed by the crowded populations in certain parts of Europe, have now a chance of being, to some extent, utilised.

We subjoin the results of a chemical examination of samples of extract of meat which have been forwarded to us by the makers.

	Deane's flavoured.	Tooth's ext. of mutton.	Tooth's Liebig's extract.	Australian Meat Co.'s (Ramornie) extract.
Percentage of water	20.7	24.4	17.7	Not taken.
,, nitrogen	6.15	10.4	8.9	7.4
,, "free ammonia".	0.5	0.6	0.6	0.6
,, "albuminoid ammonia"	3.6	4.4	4.6	4.0

The estimation of water in such a substance as extract of meat is necessarily not very exact, owing to the difficulty of driving off all the water without effecting a certain amount of decomposition of the substance. The nitrogen was estimated by the ordinary Will and Varrentrapp's process. "Free ammonia" means ammonia evolved on boiling with carbonate of soda. "Albuminoid ammonia" is ammonia evolved by subsequent treatment with alkaline permanganate of potash, being data afforded by Wanklyn, Chapman, and Smith's ammonia-process. These determinations will serve to give some clue to the relative strengths of these different kinds of meat-extract. Taking the "albuminoid ammonia" as the measure of strength, we have—

Tooth's Liebig's extract	4.6
Tooth's extract of mutton	4.4
Australian Meat Company's (Ramornie)	4.0
Deane's flavoured extract	3.6

As a kind of set-off against the fact, that Deane's flavoured extract is sensibly weaker than the others, we are bound to mention that the flavour of it is excellent, and that it appears to be superior to the rest in palatableness.*

Tooth's extracts of beef and mutton are thus, it will be seen, both of them admirably made, and amply deserving of the confidence of the public and of the profession. The Australian (Ramornie) extract is also an aliment of the most valuable and easily utilised nutritious power; and for the cook, for the invalid, and for the traveller, alike valuable and trustworthy.

SICILIAN WINES.

AMONGST the many new competitors for favour, there is some probability of old and justly esteemed favourites being forgotten and overlooked. The Sicilian wines of Mr. W. D. Watson, Great Russell Street, are deserving of attention. The Marsala, which he sells at a very moderate price, is a wine superior in bouquet, alcoholic strength, and purity, to many Spanish wines ordinarily sold at higher prices. It may be safely recommended to those who wish to order or use a natural wine, which fairly competes with many high-priced sherries, at a very much lower price. The Bronté Madeira is remarkable for its good qualities, and is a generous finely flavoured wine, which can hardly fail to find permanent admirers. The Mazzara is a wine less known, and which will repay trial. These Sicilian wines are worthy of being largely tried, and are likely to find general favour.

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* The addition of the flavouring material to Dean's extract will account for the fact of its not being so strong as the others. We are informed that it is proportionally cheaper than the others.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, medical appointments and trials, hospital and society meetings, important inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 26TH, 1868.

MEDICAL EDUCATION.

THE Medical Teachers' Association has completed the discussion of the memorandum by the Council on the present obligatory conditions of study for the medical profession, and on the constitution and relation of medical schools. The Association has made some important practical changes in the distribution and manner of prosecution of medical studies; but it has accepted with earnest approval the main principles of this remarkable report. It is, in our opinion, one of the most important documents ever penned, and is destined to be the Magna Charta of medical education. Our space will not, we regret, permit us to reproduce it at length; and it would be improper to do so in its present state, as it is now referred back to the Council for revision in the sense indicated by the resolutions of the recent and several meetings at which it has been elaborately and carefully discussed by most of the working teachers of London. It is noteworthy and unfortunate that, at these meetings, the teachers of two great schools have been remarkable by their absence; but such a document derives its main influence from its intrinsic weight of argument and excellence of judgment; and the close and accurate sifting which it has undergone from such men as Williamson, Sibson, Campbell De Morgan, Headlam Greenhow, Hyde Salter, Miller, Bentley, Gascoyen, Brodhurst, Dickinson, Holmes, Wood, Heath, Silver, Trimen, Anstie, Bruce, Rivington, Headland, Russell Reynolds, Sydney Jones, and many others; and the careful and philosophic thought devoted to its authorship by Mr. Simon, have not failed to produce the result which might be anticipated. Whether the time at which its resolutions will be adopted be close at hand or long deferred, it is impossible to doubt that this memorandum will exercise a permanent and valuable influence on teaching and examination.

We have already detailed its leading features. The main alterations introduced have been the emphatic affirmation, on a motion by Dr. Sibson and Mr. De Morgan, of the high importance of practical demonstrative teaching of scientific subjects; *systematic* clinical teaching of medicine and surgery; and hospital-ward examinations for all diplomas; the demand for the inclusion of elementary chemistry, physics, and botany in the preliminary examination of students before admission to the medical curriculum; and the addition of anatomy to the subjects of study in the first year or years of scientific study. We shall again have occasion, probably many times, to return to the discussion of the topics suggested by this document.

HEALTH OF THE NAVY.

No. III.

PHTHISIS stands highest on the list of causes of mortality in the whole force; having caused 84 deaths, or 1.6 per 1000 of strength, or 21.3 per cent. of the deaths from disease, or 16.5 per cent. of the deaths from all causes. It was, also, the most frequent cause of invaliding; 4.9 per 1000 having been rendered ineffective from this cause.

Rheumatism comes next as the cause of invaliding; having reduced the strength by 4.1 per 1000.

Drowning—by which 65 deaths occurred, being in the proportion of 1.3 per 1000 of strength, 56 per cent. of the deaths by violence, and 12.7 per cent. of total number of deaths—is the next most frequent cause of mortality.

Diseases of the Heart and Blood-vessels caused a somewhat lower number of admissions; but a rather higher invaliding and death-rate than during the preceding year. Of 327 cases of functional and organic disease of the heart, 124 were invalided and 26 died; being in the respective proportions of cases 6.7, invalids 2.5, deaths .5 per 1000 of the total strength. There were besides 9 cases and 6 deaths from aneurism.

Compared with the preceding year, there was a reduction in all the ratios under the heading of Diseases of the Alimentary System.

Cholera caused 24 admissions and 10 deaths. 15 of the admissions and 8 of the deaths occurred on the Home Station; 4 admissions and 1 death on the Mediterranean Station; and 5 admissions and 1 death on the Cape of Good Hope and East Indies Stations.

There were 197 cases and 22 deaths from Dysentery, being in the proportion respectively of 4 and .4 per 1000 of strength. 25 men were invalided from this cause, being .5 per 1000 of strength. 66 of the cases and 16 of the deaths occurred on the China Station, being respectively 18.5 and 3.9 per 1000 of the strength on that station. Diarrhœa caused 4106 admissions, 24 invalids, and 1 death. On the China Station, there was a reduction of 43.2 per 1000 of mean force in the cases of dysentery and diarrhœa, compared with the preceding year. The reduction was chiefly in the latter disease.

Diseases of the Liver, chiefly inflammatory, caused 142 admissions, 33 invalids, and 11 deaths. They were, as usual, most frequent on the Cape of Good Hope and East Indies and the China Stations.

Only two cases of Scurvy occurred in the total force—one on the China and one on the Cape of Good Hope and East Indies Station.

There was a reduction in that class of disease, called in the army nomenclature Enthetic, but in the navy known as Diseases of the Genito-urinary System. In Syphilis, the reduction was equal to 12.9 per 1000; and in Gonorrhœa to 5.2 per 1000.* The decrease of syphilis was on the Home, Mediterranean, and China Stations, and in the Irregular Force; and of gonorrhœa, on the Home, Mediterranean, South-East Coast of America, West Coast of Africa, and China Stations, and in the Irregular Force. There was a very large increase of syphilis on the Pacific Station, Valparaiso being said to be a very hot-bed of this disease. There was a large reduction in China, owing to there having been less communication with the various ports rather than to any decrease in the sources of disease. Through the urgent representations of our minister and Commander-in-Chief in Japan, the Japanese authorities have at length, during 1868, been induced to adopt a system of inspection of prostitutes, which has been placed under the direction of a British naval medical officer, and will, no doubt, prove of the utmost advantage to the squadron stationed there.

The following extract from the returns shews the relative prevalence of the various forms of enthetic disease in the total force.

	No. of Cases.	Ratio per 1000 of Force.	No. Invalided.	Ratio per 1000 of Force.	No. Died.	Ratio per 1000 in Force.
Syphilis—Primary..	2695	55.2	1	..	1	.02
Syphilis—Secondary	834	17.	92	1.8	3	.06
Gonorrhœa	1081	22.1	2	..	..	..
Orchitis	934	19.1	14	.2	..	..
Stricture	190	3.8	23	.4	1	.02
Total..........	5734	117.2	132	2.4	5	.10

Each case of primary syphilis was, on an average, about forty days under treatment, on board ship and in hospital, and each case of secondary syphilis between thirty-two and thirty-three days, and each case of gonorrhœa seventeen days. The daily average number sick from enthetic diseases was 484, or 9.9 per 1000 of the total force; on the Home Station it was 209, or 9.8 per 1000 of the strength, which is less than the average in the army at home during 1866, by 6.3 per 1000.

On the whole, the opinions of the medical officers as to the working of the Contagious Diseases Act are favourable; but that, from its present limited application, it has not yet had a fair trial.

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* Or 18.1 per 1000 in both forms of disease. Reference to the Army Returns for 1866 shews the decrease in that force in enthetic diseases to have been 24.3 per 1000 as compared with 1865.

Our limited space does not admit of any further detail of statistics; or of our noticing, at the length which their interest and ability deserve, the various contributions on medical and allied sciences.

The Appendix contains interesting and valuable reports on the Natural History, Meteorology, and Medical Topography of parts of South and North Australia, by Assistant-Surgeon Ninnis, M.D., and Surgeon Haran; On the Influence of Diet, Climate, and Long Voyages, on the Health and Diseases of Seamen, as indicated by their weight, etc., by Surgeon Rattray, M.D.; Greenwich Hospital Reports on Pulmonary Phthisis at Different Periods of Age, by Deputy Inspector-General W. R. E. Smart, M.D., C.B., K.L.H.; Remarks on Insanity in the Royal Navy, by Deputy Inspector-General W. Macleod, M.D.; and papers with good coloured illustrations by Staff-Surgeon J. D. Macdonald, M.D., F.R.S., On some Forms of Renal Disease associated with Dropsy, and of Mitral Valve Disease, with Rupture of the Chordæ Tendineæ.

THE COMPARATIVE CLIMATAL CHARACTERS OF HEALTH-RESORTS.

We have it in contemplation to extend the interest of the meteorological information, for which our associates are weekly much indebted to Mr. Treutler, by adding to it similar returns from the Principal Health-Resorts. It is obvious that such a weekly comparative table would have a constant and abiding interest for practitioners in all parts of the country; and that it would ultimately acquire great permanent value for the purposes of medical climatology. We, who send patients to health-resorts, would be glad to know weekly the climatal conditions to which they are being subjected; and it would be important to have an authoritative comparative table always at hand. It will be equally advantageous to each of such places to bring weekly their climatal peculiarities before the practitioners in less favoured districts. We hope, therefore, that we may look to the meteorologists of the leading British and foreign health-resorts for assistance in this matter; and we shall be glad to receive communications from correspondents who will undertake to forward to us weekly authentic and accurate climatal reports, such as those which we now publish from Kew, and in a form to compare with them by tabular entry.

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CONCERT AND DRAMATIC ENTERTAINMENT AT GUY'S HOSPITAL.

A concert and dramatic entertainment was given by the students at Guy's Hospital on Friday of last week, in aid of the Samaritan Fund. There was a full rehearsal on the evening preceding, for the benefit of the nurses, servants, and other officials.

TITLES ASSUMED BY QUACKS.

Many newspapers publish an advertisement headed "Electricity is Life—Cure yourself by the Patent Self-adjusting Curative and Electric Belt." The advertiser styles himself "Medical Electrician to the London Hospital". It would be worth considering, whether this and similar assumption of connexion with the London hospitals should not be repudiated publicly by the authorities of these institutions.

THE USE OF CARBOLIC AND SULPHUROUS ACIDS IN CHINA.

Dr. Patrick Manson writes to us from Takao, Island of Formosa, and says that carbolic acid is being used in the fœtid sloughing ulcers so frequent there among the poor Chinese, with marked benefit to the sufferers, and comfort to all those around—so admirably does it act as a disinfectant. Sulphurous acid, he states, is on its trial in similar cases. It is equally good as a lotion; but carbolic acid has the advantage, when used undiluted, of being a first-rate solvent of sloughs, allowing them to be washed away soon after its vigorous application.

MEDICAL BENEVOLENT FUND.

We learn from Dr. Broadbent, the honorary secretary, that the sum distributed at the last monthly meeting of the Committee of this charity was £90, among twelve applicants. One of these was a surgeon, aged 84, who received £10; another was a widow, recently left with eight children, quite destitute, to whom £20 was voted.

TALLEYRAND.

To the anecdotes of Talleyrand which have lately been current, the *Annales Médico-Psychologiques* adds the following. Talleyrand fled to America during the French Revolution, and walked one day with his friend B. on the ramparts of New York. The expression of his friend's face produced such an effect upon him, that he addressed him in these terms: "Miserable man, you wish to kill me." The other looked at him in astonishment; and then, bursting into tears, avowed that the idea had occurred to him, and that at that moment he had been waiting for an opportunity to throw him into the sea.

THE MEDICAL STUDENTS OF PARIS.

It is stated, on imperialist authority, which cannot be doubted—that of M. Paul de Cassagnac, in the *Pays*—that twenty invitations to Compiègne were sent to students of the School of Medicine; but they all, in succession, pleaded the pressing preoccupations of professional study, and none of them accepted the proffered mark of Imperial condescension.

CALCUTTA STATISTICS.

The *Indian Medical Gazette* severely criticises the mortuary returns of the municipality of Calcutta. These returns show 704 deaths from *cyanosis* in Calcutta alone during 1867, of which two-thirds (481) occurred in the second half of the year. In the 21,000,000 of population in England in 1866, there were returned 514 deaths from this cause; so that cyanosis is set forth as eighty times as common in Calcutta as in England, and epidemic in particular seasons. Of other malformations equally common, as spina bifida, none are set down in this return. Nevertheless, the health-officer declares that he has every reason to believe the mortuary reports to be perfectly correct. Deaths from "liver", hepatitis, according to this report, are six times more common in England than in Calcutta. Notwithstanding that the health-officer believes his returns to be derived from "reliable sources", we trust that no reliance will be placed by official persons upon these health-reports from the seat of government in India. They are devoid of scientific value, and entirely illusory.

SERIOUS AND UNFOUNDED CHARGE.

A very gross charge of maltreatment was brought recently at the Central Criminal Court against Mr. Thomas Popplewell, of Bethnal Green, who was committed by a coroner's jury on the charge of manslaughter, the allegation being that he had by violence seized and torn away the uterus in the labour of Hannah Clifford, who had died. The medical evidence, however, showed a very different series of facts. Mr. G. B. Phillips proved that there was fatty degeneration of the heart, and great softness. The latter he ascribed in great measure to *post mortem* change. There was also softening of the liver; and a morbid condition of the uterus, the body of which was unusually thick. The uterus was absent from the body; it had been entirely separated from the vagina by laceration. It was shown that the defendant, pulling on the cord with one hand, whilst pressing on the abdomen with the other, to remove the adherent placenta, found the uterus and placenta come away together. The uterus was not inverted. Therefore he could not have seized the uterus itself. Dr. Barnes, having heard the evidence, was prepared to say that there was no proof of neglect or improper treatment. His opinion was that the degenerated tissues predisposed to laceration; that in all probability a slight laceration took place when the head of the child was in the vagina, under the spontaneous action of the uterus, as had happened in many instances; that a laceration once begun would easily extend; that extension took place as the child's head emerged from the vagina; and that complete separation of the uterus from the vagina occurred from dragging on the cord to remove the placenta. It could not be supposed that simple dragging on the cord by one hand—which was all the force employed—could tear away a healthy uterus from its connexions. The cord had been tested like a chain or rope with weights to see what strain it would bear. It would only bear a strain of a few pounds. It often broke by the simple traction required to extract the placenta. It required even great care not to break it. It was reasonable to infer that it would give way, before the structures of the mother could be injured. With reference to the mode in which the ligaments of the uterus were ruptured, he stated that these had been known to be ruptured during inversion of the uterus. The defendant had by drawing on the cord done what was usual, and not more, and could not be held responsible for the rupture. Dr. Braxton Hicks, who was also in court, was, we understand, prepared to give similar evidence. Thereupon the case was stopped, and Mr. Popplewell honourably acquitted. But what is to repay him for the scandal and grievous imputations thrown upon him at the inquest? It is not the first time that Dr. Barnes, by his able, clear and manly interpretation and statement of facts, has cleared the reputation of obstetric practitioners from unmerited obloquy cast upon them by coroners' inquests. Such occurrences as these, however, very clearly show the great importance of skilled expert evidence at the primary inquiry by the coroner, and the serious responsibility which rests upon those who make the autopsies for such inquiries.

BABY-FARMING.

A CORONER'S jury at Pill has committed a baby-farmer for manslaughter. The example is a good one; for the circumstances are, as our investigations have proved, of every-day occurrence, and ordinarily pass with impunity. Babies starved to death are commonly entered as victims to "atrophy and debility". The deceased child, says the report before us, the illegitimate offspring of a domestic servant, was two months old; and, a fortnight after its birth, it was placed out at nurse. The mother stated at the inquest that she paid the nurse eighteen pence a week, and allowed a pint of milk daily. To her complaints that the child was getting very thin, the nurse replied that it rejected its food; but, when the mother fed it at her visits, the little one ate ravenously. A neighbour, who occasionally took the child, also spoke of the greedy manner in which it took its food. The sequel may be guessed. The poor neglected waif pined and died, or, as the jury decided, was starved to death. The medical man who made the *post mortem* examination stated that all the internal organs were healthy, but there was not a particle of food in the stomach or intestines; and he was of opinion that the child had had no food for a day or two before its death. The legislative remedy appears to us not very difficult; it lies in the registration and inspection, by the district medical officers, of nurslings and baby-farms. The late Government gave a ministerial pledge, shortly after the publication of our reports during the summer, that the subject should receive attention, with a view to legislation. It would be satisfactory to learn whether any steps have been taken to fulfil that public duty.

MEDICAL ARBITRATION IN COURTS OF LAW.

WE are glad to be able to record another example of the plan of referring medical details in law cases to a medical arbitrator, on Monday last, at the Guildhall, by Sir William Bovill. The matter in dispute was as to whether the complainant, who more than two years ago was shaken in a railway accident, was or was not materially damaged as regards his eyesight. Last Christmas, the case was tried, and a verdict of £1,000 given; against this the Company appealed, and an order for a new trial was obtained. The professional evidence was, on that occasion, as usual, most conflicting. Mr. Wharton Jones, for the complainant, proved that he was in danger of amaurosis; and Mr. Couper, for the Company, alleged that his eyes ailed nothing. On the present occasion the battle was likely to have raged still more fiercely. The court might almost have been mistaken for a meeting of the Clinical Society, so many were the medical and surgical witnesses on both sides; and a large beautifully executed model of the eye adorned the table. After Mr. Digby Seymour's opening speech, the judge proposed to stop the tournament, and suggested that the chief matter in dispute was one of "extreme delicacy," the bearings of which neither he nor the jury were well fitted to understand. Mr. Seymour resisted the proposal of arbitration for some time, and would clearly have preferred to trust his client's interests to a jury. He consented only on the condition of an absolute verdict for £650 being taken, to which the sum awarded by the arbitrator is to be added. It is due to the Company, the defendants, to state that they appeared eager to accept the proposal, and offered at once to pay its expenses if adopted. When it came to the selection of an arbitrator, it appeared that almost every ophthalmic surgeon in London had already been consulted in the case. Mr. Bowman was finally selected.

HUNT AND GOTOBED *v.* ANDERSON.

THE Court of Probate was occupied for no less than six days with this important will cause. The defendant opposed probate of the will of his father, propounded by the plaintiffs as executors, on the ground of undue influence and unsoundness of mind. It appeared in evidence, that the testator was 94 years old; that his articulation was so imperfect that he only now and then uttered an intelligible word; that he could not stand alone or feed himself; that his memory was impaired, and his habits dirty; in fact, that he was childish and in his dotage. Nevertheless, in this condition, he made a will, unknown to his son, by which he excluded him entirely from the executorship, and left him only a third of his residuary estate; the plaintiffs, who were not relatives, being executors, and taking the other two-thirds. The important feature is, that the plaintiffs asked two medical men to be the attesting witnesses, and when the will was so signed, they thought, and said, that it was useless to dispute his capacity. It was proved, however, that the medical men were not in the room when the will was read over to the testator; that nothing whatever was said by him in their presence to indicate whether or not he understood anything that was going on; and that all they saw was, that he, with assistance, signed a piece of paper. The jury, on hearing one witness for the defence, stopped the cause, and unanimously found that the testator was of unsound mind. We think this ought to be a warning to our brethren not to witness the signing of a will, and thereby testify to the soundness of mind of a testator, unless they are amply persuaded of his testamentary capacity. Legal matters of this sort are beyond our province, and are better left to those whose business they are. It is galling in the extreme to a medical man to have to spend a week in a London law-court; and, in our opinion, it is the wiser course to keep clear of all that is likely to bring about such a result.

SCOTLAND.

THE new infirmary at Brechin is now almost completed, and will be opened early in the year.

THE Lord Justice-General, as Chancellor of the University, has appointed Principal Sir Alexander Grant, Bart., LL.D., etc., to be Vice-Chancellor.

THE late John Clarke, jun., Esq., of Mile End, Glasgow, has left, in addition to £100 for the Glasgow Royal Infirmary, a provision for university bursaries, numerous charitable legacies, and an estate valued at £10,000 to the Royal Infirmary.

WE observe that of the 1,896 members of the Aberdeen University Council who voted at the late election, 529 were medical men. Of these, 306 voted for Mr. Gordon the Conservative, and 223 for Mr. Moncreiff the Liberal candidate.

THE Edinburgh Royal Infirmary Fund amounts now to nearly £69,000. The discussion is being still carried on as to the change of site for the new hospital. A long and interesting paper was read by Dr. Andrew Wood at the Medico-Chirurgical Society of Edinburgh last week, in favour of Watson's Hospital ground as a more eligible position than that occupied by the present hospital. A long discussion ensued, which was adjourned until this week. The proprietors of George Square, at a meeting held on Monday, have resolved to memorialise the managers of the Infirmary against its removal.

THE sewage question in Glasgow seems still to be occupying the attention of the various societies in Glasgow. Last week, the Sewage Association Committee and the Philosophical Society of Glasgow held meetings, at which the subject was discussed. The following motion was unanimously adopted. "That, in the course of the discussions which have taken place at the Association meetings, sufficient evidence has been produced to warrant them in recommending the authorities, before coming to any conclusion on the disposal of the sewage and the purification of the river, to make experiments on the practicability of such schemes as proceed on the principle of providing that fæcal matter be no longer allowed to enter the common sewers or the river."

PROPOSED FEVER HOSPITAL AND INFIRMARY AT DUMBARTON.

THE trustees of the late Miss Janet Rankin have agreed to give out of her estate the sum of £3,000 to be applied in the erection of a fever hospital and infirmary.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

AT a meeting of the College held on Saturday, an opinion by Mr. A. R. Clark, advocate, in regard to the operation of the Pharmacy Act, was read. The following is an extract.

> "I am of opinion that the memorialists and their licentiates are legally qualified apothecaries within the meaning of the Pharmacy Act, and that they are entitled to keep open shop and to dispense medicines. The Pharmacy Act is not of universal application. By the sixteenth section, it is enacted that it shall not extend to, or interfere with, the business of any 'legally qualified apothecary'. The question, therefore, is, whether the memorialists and their licentiates are within the exception. They hold a diploma which authorises them not only to practise as surgeons, but also to 'exercise the office of a pharmaceutist.'"

NEW BARRACKS FOR GLASGOW.

THE *Glasgow Herald* says that Government has just completed the purchase of thirty-six acres of ground on the west side of the Mary Hill Road, lately the scene of the Mary Hill games, upon which site barracks capable of accommodating a large number of artillery, cavalry, and infantry, are to be built. The situation is elevated; and, in the opinion of the military and medical authorities who have inspected the place, it is admirably adapted for a large military establishment.

ROYAL MEDICAL SOCIETY OF EDINBURGH—ANNUAL DINNER.

THE annual dinner of the Royal Medical Society was held last Saturday evening in the Douglas Hotel. Mr. F. Pritchard Davies, President of the Society, occupied the chair; and Mr. A. Rabagliati, Secretary, acted as croupier. Among those present were Professors Sir J. Y. Simpson, Bart.; Lyon Playfair, M.P.; Blackie, Kelland, Bennett, Spence, and Maclagan. The Chairman, in proposing the toast of the evening, "The Royal Medical Society," noticed its increased prosperity during the last few years. It still, however, laboured under a disadvantage. It only allocated within its walls the older students; the younger students in their first, second, or third year, did not join them. And one of the reasons for this was that they felt the drag upon them of the numberless lectures which they had to attend. He rejoiced to know that what he said was cordially reciprocated by those present; and he thought such an expression of opinion from the Royal Medical Society was entitled to be well considered by the managers of the medical schools.

THE CHAIR OF CHEMISTRY IN THE UNIVERSITY OF EDINBURGH.

PROFESSOR LYON PLAYFAIR, M.P., in a letter which appears in the *London Scotsman*, explains the reason why the emoluments of the chemistry chair in the University of Edinburgh were so small when he was appointed. When the grants of the Commissioners came into operation in 1863, a sum was allowed for class expenses and assistants; but, previously to that date, no salary or allowances were given for any such purpose, except a small grant given out of its scanty funds by the Senatus. The expenses of the chair were, therefore, very heavy. At present, according to Professor Playfair's computation, it is worth £700 or £800 a year—a sum which is certainly not what an university of so much renown as Edinburgh should be forced to offer to her teacher of chemistry. Dr. Playfair rightly observes, that there are professors as well as students; and that testamentary bequests ought not to be exclusively limited, as is the case at present, to the latter class.

IRELAND.

LIGATURE OF THE INNOMINATE ARTERY.

MR. MORGAN, at Mercer's Hospital, on Thursday week proceeded to tie the innominate artery for subclavian aneurism. Finding, however, that the first stage of the subclavian was remarkably healthy he ligatured that vessel instead. The patient is doing well.

SUPERANNUATION OF POOR-LAW PHYSICIANS.

THE Bill prepared by the Council of the Royal College of Surgeons of Ireland proposes to confer a discretionary power on Guardians, to superannuate medical officers disabled by age or infirmity. Under the Diseases Prevention Act, the Commissioners have power to order recompense for special medical services, if Guardians should fail to award it.

DUBLIN ELECTION.

THE Committee of Sir D. Corrigan have lodged a petition against the return of Sir A. Guinness, on the ground of bribery.

THE NEW LORD-LIEUTENANT.

EARL SPENCER'S name is not unknown to science, as he acted as one of the most earnest of the Cattle-Plague Commissioners; but his father's discoveries concerning the influence of the male parent on the length of utero-gestation in the female of the ox tribe and other of the lower mammals, are known to all physiologists. That nobleman also, while Lord Althorp, introduced and carried into law the Poor-law Bill of 1834.

THE ROYAL DUBLIN SOCIETY.

AT a meeting on Monday evening, Dr. Reynolds exhibited an interesting substance—sulphur-urea, or urea in which oxygen had been replaced by sulphur. He had obtained it by decomposing the sulphocyanide of potassium, the salt peculiar to the saliva. Dr. Cruise exhibited a very ingenious electro-motor machine which had been devised by him.

NATURAL HISTORY PROFESSORSHIPS.

THE Chair of Natural History in Belfast College is likely to be shortly vacant by the election of Dr. Wyville Thompson to the Botany Chairs in Dublin University and the College of Science. Dr. Macalister, of the Royal College of Surgeons, seeks to be his successor, and can bring forward testimonials of unusual value as regards his proficiency in each branch of natural history.

DUBLIN COUNTY MILITIA.

MR. WILLIAM STOKES has been appointed Surgeon to the County of Dublin Militia, *vice* Dr. Grattan-Guinness deceased. This appointment, although it is little more than an honorary one so far as duty is concerned at present, will, we are assured, meet with the general approval of the profession. Mr. Stokes is son of the eminent Physician; was Surgeon to the Meath, and is now Surgeon to the Richmond Hospital; and has for some years been a painstaking and successful lecturer on Surgery in the Carmichael School of Medicine. The entire subject of the medical department of the militia, particularly in Ireland, is one with which ordinary medical men are very slightly acquainted; and these officers have had substantial grievances for many years. Among those who laboured long and earnestly to induce the Goverment to give a favourable consideration to the claims of these officers, no one was more remarkable than the late Surgeon of the County of Dublin regiment. Under ordinary circumstances —that is when the Irish Militia were trained annually, as they were previous to the late development of Fenianism—the Surgeon of an Irish Militia regiment had to perform various troublesome duties for which he was most inadequately requited. Among other grievances of which he had to complain was this—that while ranking as a Major he held only the pay of a Captain during training, whereas, when his regiment was embodied he was treated in all respects as an army officer. Like the Adjutant and the Quartermaster, he is expected, and indeed by the letter of the statute is *required* to reside at the head quarters of his regiment; whereas the Section of the Act which gave him pay during such residence has been long ago repealed. In the present state of politics in Ireland it is not likely that the militia will be called out for training as heretofore, unless under pressure of some great national emergency.

THE PHARMACY ACT AND THE RIGHTS OF MEDICAL PRACTITIONERS.

We recently referred to the resolution taken at the last meeting of the Executive Committee of the General Medical Council to take the opinion of counsel as to the probable interference of the provisions of the Pharmacy Act, and especially Clauses I, XVI, and XXIII, with the rights of registered medical practitioners, under the Medical Act, to dispense or sell drugs used in the practice of medicine. We understand that the opinion of counsel, which has been received and circulated for the information of the members of the Executive Committee, affirms the rights of practitioners under the Medical Act, which protects those registered under it from any interference on this score. The opinion of the Hon. George Denman has been taken by Mr. Ouvry upon a case elaborately stated; and he asserts decidedly that the rights of registered practitioners to dispense and sell medicines are in no way affected by the Pharmacy Act. We had already, some weeks since, received and promulgated the like opinion from a sound legal authority, in reply to a correspondent.

ASSOCIATION INTELLIGENCE.

GLOUCESTERSHIRE BRANCH.

The first Meeting of this Branch will be held on Thursday, Jan. 7th, 1869, at the Bell Hotel, Gloucester, at 3.30 P.M., when Dr. Evans will deliver an Inaugural Address.

The business of the Meeting will be to consider and determine the Rules of the Branch and the Election of the Officers and Council of the Branch for the calendar year 1869; to elect Members of the Branch as Members of Council of the Parent Association; to propose new Members of the Association and Branch; to transact other necessary business; and to discuss such subjects connected with the interests of the Branch and of the profession as may be brought before the meeting.

Members having communications for the meeting, are requested to give immediate notice to the Honorary Secretary.

The Dinner will be held at the Bell Hotel at 5.30 punctually. Dinner tickets, 7s. 6d. each. It is particularly requested that the prepaid notification sent to each member of the Branch be returned, without delay, to the Secretary, in order that the necessary arrangements for the comfort and convenience of the members may be ensured.

Alfred Fleischmann, *Honorary Secretary*, Cheltenham.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, December 1st, 1868.

John Simon, Esq., F.R.S., President, in the Chair.

A report was read by Dr. Murchison from the Committee on Morbid Growths, on Mr. Wyatt's specimens of Suprarenal Capsules. They were healthy; but there existed several rounded accessory bodies of normal suprarenal tissue on the surface.

A report was also read by Mr. Hulke from the Committee on Mr. Weeden Cooke's Tumour of the Neck. It partook of the same characters as the navel-string, and was more like the gelatinous sarcoma of Rokitansky than anything else.

Mr. Busk exhibited a number of Diseased Bones of a Fossil Rhinoceros found in a sand-pit in the alluvia of the Thames valley, in Essex, about 27 feet below the surface. The tibia, he believed, was affected with chronic osteitis, perhaps of a rheumatic character, but not involving the joint. The radius showed ulceration of the articular surface. Mr. Busk also showed the Fractured Bones of the Hind Leg of a Bear, which had united. He believed the bones must have sustained the fracture just before the animal was going into winter quarters, as it could not be supposed that the bones would have united as they did when the animal was under the necessity of searching for, and probably unable, in its state, to procure, food. In another bone, there was a distinct node.—Dr. Murchison wished to know if the bear, the rhinoceros, or other wild animals, still suffered from these diseases.—Mr. Busk said that wild animals in the Zoological Gardens are subject to disease of the bone, but more of an atrophic character.—Mr. Adams said that rheumatic arthritis belonged more to the articular cartilage, and not to the periosteum, as in the tibia exhibited.—Mr. Busk: In the radius, the articular surface is becoming affected, apparently.—Mr. T. Smith said that the small openings in the tibia were similar to those leading to a sequestrum, and asked if the bone had been probed.—The President observed that these were the most ancient specimens ever brought before the Society.

Mr. Coles brought forward a living specimen with extremely Rudimentary Upper Extremities, the humerus being so short as to be discovered with difficulty. All the bones were found to be present. The thumbs were, however, absent.

Dr. Cayley showed microscopic specimens of the Cerebral Arteries from a girl aged 11, who, on August 27th, was attending school. She there was seized with urgent desire to pass urine, but was at first refused permission to leave the room. She, however, relieved the bladder afterwards, and a second time. She was seized with headache and shaking, and then became unconscious. When admitted into the Middlesex Hospital, the pulse was 46, and the right pupil larger than the left. She died in a few hours. After death, a clot was found in the left cerebral lobe and ventricle; and the sheaths of the arteries of the pia mater were found microscopically filled with nuclei like tubercle, and others like oil-globules.—Dr. Bastian said these nuclei had been observed also in aneurisms.

Dr. Cayley also exhibited specimens of Aneurisms taken from a middle-aged man, who, when twenty-eight years old, had suffered from a chancre. In May 1867, he received a kick in the belly from a horse. Two or three months afterwards, he noticed pulsation over the injured part; and, in November, a pulsating tumour also appeared in the front of the left thigh; and, later, two small tumours of the same character in the right thigh. That in the left thigh markedly increased; but it appeared to undergo a spontaneous cure, for it rather rapidly ceased to pulsate. The toes of the left foot became simultaneously gangrenous. The patient gradually sank, exhausted with erysipelas of the left leg. After death, a large abscess, full of fluid, was found to exist in the left thigh, and the profunda and superficial femoral arteries obstructed from an adherent mass in the femoral artery. There was here a small opening.

Mr. William Adams showed a case supposed to be Scirrhus of the Breast in a case of atrophy. The patient was a female with several children, who, four or five years ago, had suffered from pain in both breasts. They remained indurated, but without definite growth or ulceration. They began to shrink, and the nipples to retract. Brain and spinal symptoms came on, ending in paralysis. The fifth and seventh nerves were affected. She survived the paralysis six months. The autopsy showed chronic inflammation of the brain and spinal cord. —Mr. Hulke said that, in a cursory examination, he had observed no sign of cancer, but merely withered gland-ducts and areolar tissue.—Mr. Moore thought the case was an uniform degeneration of the entire mamma, and not a tumour. There was no juice.—The PRESIDENT observed that it was not a point of cancerous tumour, but cancerous scar. Was there any case on record where cancer turned into scar without any other part being affected? The case presented an example, if the diagnosis was correct, of double cancer—a great rarity—without the lymphatics being involved, and also without development of cancer in the internal organs. There being no juice was not a valid objection against its being at one time a cancer. Probably it was the remains of an old inflammatory affection of the gland.—Mr. T. SMITH said that Mr. Paget, who had attended the case, and had always considered it cancerous, had at the present moment a similar example, in which he believed the cancer had undergone complete atrophy.—Referred to Committee.

Mr. ADAMS showed some Sloughing Syphilitic Fibrinous Masses which he had removed from the leg of a lady.

Dr. KELLY exhibited a Primary Cancer of the Femur from a man aged 57. It began with pain, but no swelling, last December. He, in April, sustained a fracture at the affected part. On May 30th, the limb was removed. On June 2nd, he had a rigor, and died, with pyæmic deposits in the lungs, on July 9th. There were no cancer-cells in the bone. The new growth presented all the appearances of medullary cancer.—Referred to Committee.

Dr. KELLY also showed a Fractured Coracoid Process from a man who was run over by a vehicle. The acromion and the skull were also fractured.

Dr. BEIGEL showed Cysts and Sand from the Choroid Plexus. The cysts were of the size of a small hazel. The patient from whom they were taken had been an epileptic, and had died comatose. Brain-sand had also been found in the urinary deposits.—Dr. WILLIAMS, jun., asked if a chemical examination of the sand had been made.—Mr. BUSK said that brain-sand had been found to consist of carbonate of lime.—Dr. WILKS observed that, in cases where brain-sand is found in the choroid, a change will generally be discovered in other parts of the brain of a similar character, with dilatation of the ventricles and thickening of the membranes.—Dr. BASTIAN had found this sandy matter in cases of inflammation of the pia mater and arachnoid.—Dr. BEIGEL said it was common in the dura mater.

Dr. MOXON showed a specimen of Tubercular Phthisis in the Base of the Lung.

Dr. LEGGE exhibited an Aneurism of the Aorta which had suddenly burst into the pericardium. There were no naked-eye appearances of degeneration, and there were only two semilunar valves.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, DECEMBER 19TH, 1868.

ROBERT DRUITT, M.R.C.P., President in the Chair.

ALEXANDER REDGRAVE, Esq., Her Majesty's Inspector of Factories, was present to confer with the Officers of Health respecting the operation of the Workshop's Regulation Act. It was considered generally that no difficulty had been experienced in the working of the Act in London. The Medical Officers of Health did not consider it altogether as appertaining to the duties of their office, but they were willing to undertake it if it did not become too burdensome. With the educational Clauses they considered they had nothing to do. As regarded the hours of work, Mr. Redgrave said that counsel's opinion was in favour of ten and a half hours and not twelve, although the wording of the Act was ambiguous. With regard to the amount of cubic space per head that ought to be demanded in workshops, opinions differed; but it was agreed that it depended very much on the nature of the trade. To clear up this important point it was determined to hold a special meeting, at which Mr. Redgrave promised attendance.

Dr. ODLING, F.R.S., then read a paper "On the Combustion of Gas in Houses." Wherever gas was used, complaints were made of dirt, heat, oppressiveness, and that the atmosphere felt harsh, acrid, and sulphureous. He believed that these inconveniences arose, not from the gas itself, but from the manner in which it was burnt. When candles were burnt in a room, usually not more than two were used; but the moment gas was introduced, people were not content with the light of less than six, eight, ten, and even twenty candles. Light for light, the evils arising from common coal-gas were not greater than those from candles. He adduced figures derived from actual observation, showing that candles, and notably tallow, produced considerably more heat than gas. As to the fouling of the atmosphere by the combustion of gas by what it took away or what it introduced into it, the amount of oxygen in the atmosphere was so abundant, that the quantity consumed was comparatively of no account. Yet it was an actual fact that, light for light, candles absorbed more oxygen than gas. Ceilings were undoubtedly rendered more black where gas was used, on account of the unconsumed particles of carbon that are lodged against them. In burning gas there was this difficulty: if the gas were more perfectly consumed, the illuminating power was diminished; if less perfectly, the illuminating power was increased, but so also the inconveniences arising from dirt. Yet, light for light, the amount of unconsumed carbon given off by gas was not so great as that arising from candles. But gas was usually burnt in a more concentrated form, while candles were usually scattered over a room; gas was also placed nearer the ceiling, candles on the table; the current of air maintained by shades, glasses, etc., was greater in the case of gas than in the case of candles. The closeness and oppressiveness of the atmosphere complained of was due, no doubt, to the greater amount of water produced by gas, although, if gas were burned in a moderate quantity, it was a question whether the amount was material. The combustion of gas produced also carbonic acid. The unpleasantness perceived on entering the gallery of a crowded theatre was shown, by actual experiment, to be due considerably more to the exhalations of the multitude than to what was thrown off by gas; and candles were less favourably circumstanced in this respect than gas. Of unburned products discharged into the atmosphere there were ammonia and sulphur. The Act of Parliament required that the amount should not be such as to affect turmeric paper. When it is remembered that one grain in 100 cubic feet of gas will so affect test-paper, and the Act was seldom disregarded, it would be seen that the proportion was very inconsiderable. Sulphureous acid was also given off, which, exposed to the oxygen of the atmosphere became sulphuric acid. It was very irritating, but was not corrosive; and was one of the weakest acid gases. Dr. Odling concluded, therefore, that gas burned in proper condition was not more injurious than candles, and if proper ventilation were provided it might be used in large quantities without injury or inconvenience.—Dr. LETHEBY called attention to the injury sustained by the books on the upper shelves of the Athenæum library. He maintained that this was due to the vapour of gas; although he allowed that it might be prevented by proper ventilation, and a more perfect purification of gas, by contact with the raw material for some time, by ammoniacal liquor, or by lime.—Mr. HAWKESLEY attributed the blackness of ceilings to particles of dust in the air being lodged there by the rapid current produced by gas. A current of steam produced the same effect. He believed that the Medical Officers had been too hasty in opposing the wet lime process of purification.—Mr. LIDDELL and others contended that, if lime must be used, it need not be in a wet form; and if wet lime must be used, the purification should be effected away from crowded neighbourhoods.—After some remarks from Mr. Finley, Dr. Gibbon, Dr. Druitt, and a short reply from Dr. Odling, the meeting closed.

LIVERPOOL MEDICAL INSTITUTION.

ORDINARY MEETING, OCT. 22.

J. MACNAUGHT, M.D., President, in the Chair.

On Recent Improvements in the Operative Surgery of the Eye. By THOMAS BICKERTON, Esq.—The author first alluded to the recent large advances in this department, and to the advantages offered to the scientific physiologist and pathologist by the peculiar construction of the eye, and by the aid of the ophthalmoscope. He drew attention to the treatment of affections of the lacrymal passages, by slitting the puncta lacrymalia on the lower lid, as far as the opening into the sac; and exhibited the instrument used for doing this, and the probes used by Mr. Bowman and Von Gräfe. He then shewed the ball and needle used for destroying nævi materni on the lids. In trichiasis, the treatment recommended by Dr. Williams of Cork was, to dip a needle into deliquesced caustic potash, and insert it into each affected hair-bulb, drawing out the hairs three or four days afterwards. This should be done early. If the whole row were involved, it was advisable to excise a piece of the skin and cartilage above the edge of the lid, and then bring the parts together by means of sutures, treating supernumerary hairs by caustic potash. In entropium, the present operation is to make two incisions through the skin and tarsi, and part of the orbicularis palpebrarum; to seize the end of the enclosed skin, and, by vertical incisions, to cut through the muscle and remove it entirely, and then to apply sutures, but no dressing. Squint should be operated upon early. Mr. Bickerton described Leibreich's mode of cutting subcutaneously, and the method which he adopted himself, and which he had found exceedingly satisfactory. The instruments used in these operations were exhibited. Excision of the eyeball was devised by O'Farrell of Dublin and M. Bonnet, about the same time, and independently of each other. It was first performed by Dr. Storber in 1841; and Mr. Critchett first performed it in this country. The operation was fully described. The hæmorrhage, as a rule, was slight, and could be controlled by a stream of water from sponges. A light pad of lint and bandage over the lids was all the dressing required. Abscission of the anterior half of the eye was an operation in which Mr. Bickerton had no faith. He described the modes of operating for soft cataract: 1, by making a small incision into the cornea and evacuating the lens by one or two operations; 2, extraction by suction. The lens may be removed at once by this process; but no more suction-force should be employed than is sufficient to bring it away with ease. The author found that, when the lens was very soft, suction was not required. In hard traumatic cataracts, Von Gräfe originated the traction operation; and it has been extended to other cataracts by Dr. Schuft. The various steps of the process were explained, and the scoops, etc., shewn. This did not give good results; and its place had been taken by Von Gräfe's modified linear extraction. The author went very fully into the mode of doing this; explaining the various steps and the precautions to be taken, as well as the after-treatment. He had found the results in his own hands more satisfactory than those of any other operation on the eye. Capsular cataract was removed by one or two needles; and, if this failed, by a broad needle through an opening in the cornea. In some cases, it was necessary to enlarge this, and to take away a portion of the iris. Artificial pupil should be made as central and well defined as possible directly behind a clear cornea, and that which was least altered in curvature. The modes of doing it were: 1, removal of a portion of the iris; 2, withdrawing a portion of the iris, iridodesis; 3, incision of the iris. It was required for inflammatory adhesions; dense nebulæ of the cornea over the centre of the pupil. In the latter, iridodesis was very useful. The author described the several operations, and also a modified one by himself. He then entered into the question of iridectomy, and spoke strongly in its favour, enumerating the several affections in which it should be employed. The *rationale* of its action was uncertain; but it effected a change in the circulation and in the secretion of aqueous humour. There was a very intimate relation, through the ciliary muscle, between the iris, choroid, and retina. In describing the operation, the author said he seldom found it necessary to give chloroform; and that he used Von Gräfe's marrow knife for modified linear extraction, making the incision on a small scale. He had also done the operation with the conjunctival flap, as in modified linear extraction, and had found it very satisfactory. In considering the relative practical value of iridectomy, division of the ciliary ligament, and division of the ciliary muscle, he was of opinion that each was of very great value in properly selected cases. He then gave an interesting history of the operations for puncturing the eyeball, from the time when it was first practised by Dr. Whyte of Manchester in 1802 up to the present time. In conclusion, he alluded to the evacuation of effusion between the retina, choroid, and sclerotic, by two needles, and laceration of these tissues, as practised by Messrs. Bowman and Hulke.

ORDINARY MEETING, OCT. 29, 1868.

J. MacNaught, M.D., President, in the Chair.

Dr. **De Zouche** exhibited a Congenital Dislocation of the Radius. It existed on both sides. The ulna occupied the whole of the articular surface. Supination was rendered impossible.

Dr. **Braidwood** shewed a Renal Tumour, and illustrated its structure by microscopic specimens. It was taken from a child, aged 22 months. The mother had noticed a swelling about three months before death on the left side, between the ribs and iliac crest. It increased very rapidly; and, when the child was first seen, there was a large swelling of the abdomen, over which coursed large veins. The child was exceedingly emaciated. The swelling grew with great rapidity, and the feet became œdematous, while the urine became much diminished in quantity some time before death. On *post mortem* examination, a large renal tumour was found, weighing ten pounds, which had displaced the bowels upwards and to the right. It was of the nature of a medullary cancer, affecting the left kidney and suprarenal capsules. When a section was made, it presented various characters in different parts. The microscopic appearances varied according to the part examined; presenting cancer-cells and renal tubes in one portion, and granular matter without cancer-cells in another. There was no evidence as to the nature of the tumour before death.

Dr. **Cameron** shewed a specimen of Aneurism of the Thoracic Aorta. The patient complained of intense pain in the back, just below the left scapula, which was also felt round the body and in the epigastrium; this was the only prominent symptom. There was no dulness or *bruit;* the respiratory sounds were feeble. *Post mortem* examination revealed a large aneurism springing from the arch of the aorta, of about the size of a cocoa-nut, and occupying the whole of the posterior mediastinum. Four or five of the vertebræ were eroded.—Dr. **Telford** alluded to a similar case where the pain had been greatly relieved by a seton.—Dr. **Cameron** remarked that much benefit had resulted from a blister in this case.

CORRESPONDENCE.

ST. BARTHOLOMEW'S HOSPITAL.

Sir,—In the last number of the British Medical Journal you advert to the numerous medical vacancies at St. Bartholomew's Hospital occasioned by deaths, illness, and resignation of the Physicians, and mention that Dr. Burrows resigned "to give himself up to active private practice." Although I do not suppose you intended to impute any mercenary motives to me in resigning my much valued appointment of Physician to St. Bartholomew's Hospital; still the language used may be so interpreted, and therefore I am anxious that it should be known that the motives which induced me to retire were of a totally different kind. I had enjoyed the advantages of my appointments at the Hospital for nearly thirty years, and had devoted myself and my time very largely to my duties as Physician and Teacher of Medicine, and found that the public duties I had to perform elsewhere and the increasing demands upon my time by professional avocations, prevented my performing my duties towards the Hospital and the Students in a manner that was satisfactory to my own conscience. I therefore resigned my appointment at the hospital that younger men might succeed, and have an opportunity of doing what I could no longer do with credit to myself, or advantage to the medical school.

I am, etc., George Burrows, M.D., F.R.S.,
President of the General Medical Council.
18, Cavendish Square, December 1868.

ANEURISM OF THE PULMONARY ARTERY AS A SOURCE OF HÆMOPTYSIS.

Sir,—In reference to the cases of hæmoptysis connected with aneurismal dilatation of the pulmonary artery, recorded by Dr. Cotton and others, I should like to mention that there exists, in the Museum of the City of London Hospital for Diseases of the Chest, at Victoria Park, a preparation, shewing an aneurismal dilatation of the pulmonary artery extending into a tubercular cavity of the lung.

The patient was a man, aged 39. He had been ill four months, and he died in consequence of severe hæmorrhage from a rupture of the aforesaid aneurismal dilatation into the cavity in the lung.

I am, etc., John C. Thorowgood., M.D.
Assistant Physician to Victoria Park Hospital.
Welbeck Street, W., November 1868.

THE SPONTANEOUS ORIGIN OF DISEASE.

Sir,—In Dr. Ransome's admirable paper on Epidemics, published in the British Medical Journal of October 10th, the author makes these remarks: "The possibility of a spontaneous origin of epidemic diseases, however, is also not precluded by the hypothesis of a general favouring influence. It is a doctrine, moreover, which has received very high sanction. Trousseau, in his *Clinical Lectures on Contagion,* says: 'La spontanéité est un fait incontestable dans la développement des maladies même les plus contagieuses;' and he instances canine madness and *sang de rate,* or malignant pustule, in support of this statement; and affirms that originally every epidemic must have been generated spontaneously. Many will hesitate, however, before they accept this doctrine. There is, in the first place, some ambiguity about the phrase here employed; and I would point out that, in the cases mentioned by Trousseau, there is no evidence of the spontaneous generation of disease-germs, in the modern sense of the term. Each instance simply proves that a poison, usually transmitted from one person to another, may, under certain circumstances, be grafted upon the organism from other sources. There is no proof in any case that the poison is not living matter or its product, or that it has been generated spontaneously. Surely, also, on other grounds, this is a doctrine to be received with caution."

Now, sir, it appears to me that, as men of science, we are bound to shirk the investigation of no subject which is likely to prove of interest or utility; and, consequently, I crave a space in your columns to express my own opinions on that much vexed question, *the spontaneous origin of disease.*

A man, to all appearances in the most perfect health, falls suddenly

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unconscious to the ground, as if struck down by a blow or flash of lightning, and there writhes in the most terrible convulsions. After a time, consciousness returns; the man sits up, rises to his feet, and probably walks away as if nothing had occurred. This is epilepsy, and was styled by the ancient Greeks, κατ' ἐξοχὴν, *the sacred disease.* And no wonder that a disease, the nature of which was so utterly incomprehensible, should have been looked upon as a direct infliction from the gods. Hippocrates, however, wiser than his generation, refused to subscribe to such an unphilosophical opinion, maintaining that one disease is nowise more divine nor more sacred than another, but that each has a natural cause from which it originates.

When we apply the term "alterative" to a certain class of remedies, we in reality confess our ignorance of their action; and similarly, in attributing certain diseases to "Divine vengeance", we are in fact only acknowledging our ignorance of their cause. But epilepsy is now removed from the category of "inflictions from heaven", because the nature of this disease is not so incomprehensible to us as it was to the ancient Greeks or to our own forefathers. There never was a time, however, in which some diseases were not considered more in the nature of inflictions from heaven than others. Sydenham writes: "*Acutos* dico, qui ut plurimum Deum habent auctorem, sicut *chronici* ipsos nos." (*Dissert. Epist.*, p. 367.) At the present day, some give this prominence to the zymotic diseases generally; others, to syphilis alone. With regard to the latter disease—and I think we might almost add, *ex uno disce omnes*—the absurdity of such a theory must be apparent when we consider that the transgressor himself may suffer little, whilst the life of an unoffending wife or unborn innocent may be sacrificed to this *just* punishment, this *divine* infliction.

As the offspring of these crude theories, we have a pretty general disbelief in the spontaneous origin of contagious diseases. Before entering, however, upon the discussion of this subject, we must remember that disease is not an entity, but a concatenation of certain symptoms following upon some exciting cause; or, as Sydenham puts it, "Morbum nihil esse aliud quam naturæ conamen, materiæ morbificæ exterminationem, in ægri salutem, omni ope molientis." The dogma, "Omne vivum e vivo," is, then, wholly inapplicable to disease; because, since disease is a nonentity, it can have no disease-germ, properly so called; and, of course, following the same line of argument, a disease, strictly speaking, cannot have a spontaneous origin. When, therefore, I give it as my opinion that a disease may arise spontaneously, I mean to express my belief that, if any contagious disease were to die a natural death or be "stamped out", and if every contagium from the bodies of the sick were to be destroyed, the disease might arise again *de novo*, just as it first arose, supposing the original *causa morbi* to be still in existence.

"Whatever has once happened is capable of happening again. The only question relates to the conditions under which it happens." (Mill's *Logic*, B. ii, p. 140.)

We know nothing whatever of the conditions under which any of the contagious diseases first arose; we cannot, therefore, say that the selfsame conditions do not now exist. The dogma, therefore, that these diseases cannot now arise as they first arose, is untenable.

I am, etc., R. S. Sisson, M.D.

Maida Hill, October 1868.

DRUGGISTS AND DOCTORS.

Sir,—The medical profession must congratulate the pharmaceutical chemists on their new Parliamentary Bill, which appears amply to protect them against all intruders, while it leaves them latitude enough to intrude themselves on everybody's business to their heart's content; so that, as occasion offers, they may be grocers, tallow-chandlers, tobacconists, fancy dealers, scientific instrument venders, or anything else they like, not omitting dentists, surgeons, and consulting physicians (at home). But it does strike me as rather anomalous, that the said druggists have now greater authority to cleanse the ranks of the medical profession than we have ourselves. Whilst we have, apparently, no power to summon men who dispense drugs, etc., in so-called "surgeries" (*i. e.*, unqualified practitioners), as also those who degrade the profession by keeping open surgeries, the pharmaceutical chemist has authority (which by all means, we trust, he will use) to prosecute all such for vending drugs without proper credentials or being duly registered as legal medical practitioners.

We must now hope our turn will come next. But, as medical men have never been very felicitous in the framing of their Bills for professional protection, or, indeed, for any object of self-interest, it will, perhaps, not be thought presumptuous if I suggest one or two sources of danger to our future legal compilers.

It must be self-evident, that any injury to our profession arising from quacks and illegal practitioners is nothing in comparison with the continual drain on our resources occasioned by the counter-prescribing of facetious druggists' apprentices. Should we frame a Bill which will grant a summary conviction to all such offenders, as, I believe, is done in many continental states, it is still to be apprehended that we shall be attacked by means of patent nostrums, devised and dispensed by every pharmaceutical chemist on his own account, duly protected with the government stamp; so that, instead of monster Morison and Holloway charlatans, we shall have Smith, Brown, and Robinson, each with his infallible elixir salve and balsam. Thus the burden will simply be shifted from one shoulder to the other. It appears to me rather a hypocritical procedure in our governing body to pretend, in the first instance, to protect the legitimate practitioner by a stamped diploma (heavily taxed), and then systematically to deprive him of his rights and emoluments by letting loose on his track a pack of harpies, all duly marked and collared with government labels. But the public conscience never was famed for extreme sensitiveness.

One of your notices to the correspondents in the Journal of November 28th, in reference to a vacancy in the Carlisle Infirmary, suggests to my mind another aspect of an anomalous state of things. It is there complained that, out of three men with titles sufficient to qualify them as physicians, one was chosen who had previously acted as a general practitioner, and had even held clubs. For aught we know, the two others had never done anything; and why the practised eye and hand should be put down as a disqualification, is past my comprehension. No general practitioner can be too learned or too highly titled for his onerous duties. Physicians have only themselves to blame, if occasionally they find a sharp competition from the rank and file of the profession; for, until they enrol themselves as a distinct body, with special duties, honours, and acquirements, general practitioners with the same titles will think themselves, and prove themselves to be, their equals; for, besides holding special titles (which at present they do not), physicians must confine themselves to special duties, namely, as consultants; whereas now it is notorious that they continually fulfil all the functions of the general practitioner, though perhaps in a higher sphere, and that to such an extent that I have heard more than one practitioner declare they would never again meet one in consultation, after experience of the risk thus run of being supplanted in ordinary family attendance by this so-called physician; but, in cases of difficulty, would call in a friend upon whom they can rely, or even throw up the case altogether, if the patient is not satisfied. Such abuses as these will never be rectified until all practitioners hold an uniform state licence, and those aspiring to particular branches be required to qualify themselves thereto by special titles.

I must apologise for intruding so much on your valuable space, and am, etc., Percy Leslie, M.D.

Birmingham, December 1868.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

PERSHORE UNION.

Vote of Thanks to the Medical Officer. The following is an extract from the minutes of the meeting of the Board of Guardians of this Union, held December 15th, 1868.—"Francis Davies, Esq., Medical Officer of the Eckington District of this Union, having tendered his resignation, the Guardians wish to record their opinion of the able manner in which he has invariably discharged the duties attendant upon his office throughout the long period of thirty-four years. E. H. Pace, Clerk."

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

The following gentlemen have passed the Second or Final Examination for the Degree of Bachelor of Medicine.—W. H. Corfield, M.A., Pembroke; C. C. Pode, M.A., Exeter; Wm. Swan, M.A., Queen's. *Examiners.*—J. K. Chambers, M.D.; J. W. Ogle, M.D.; T. P. Teale, M.B., F.R.C.S.; H. W. Acland, Regius Professor of Medicine.—December 10th.—The following Medical Degrees were conferred: Doctor in Medicine, William Selby Church, Christ Church. Bachelor in Medicine, W. H. Corfield, Pembroke; Wm. Swan, Queen's.

UNIVERSITY OF CAMBRIDGE.

Natural Sciences Tripos, 1868.—First Class—*Nil.* Second Class—Higgins, Downing; Moore, Catherine; Cory, Pembroke, and Penny, Caius, equal. Third Class—Holditch, B.A., St. John's, and Monckton, Caius, equal; Roe, Downing.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 17th, 1868.

Boalth, William Hope, Millman Street, W.C.
Greene, Walter, Boulogne-sur-Mer
Hall, Francis de Havilland, Tottenham
Holderness, William Brown, Windsor
McCann, Charles, Parliament Street, S.W.
Matthews, James Forrester, Royston, Herts
Moore, Joseph, Upper Brook Street
Vialls, Edmund, Peckham

At the same Court, the following passed the first examination.

Adcock, Hugh, Guy's Hospital
Farnfield, Walter Edmund, Guy's Hospital
Hendley, Thomas Holbein, St. Bartholomew's Hospital
Salt, George, London Hospital

As Assistants in compounding and dispensing medicines.

Ellis, Henry Brook, Bideford, Devon.
Jones, John Griffith, Newington, S.

MEDICAL VACANCIES.

The following vacancies are declared:—

ABERDEEN ROYAL INFIRMARY—Physician.
AUCKLAND UNION, Durham—Medical Officer for the Whitworth (a new) District.
AYRSHIRE DISTRICT LUNATIC ASYLUM—Medical Superintendent.
CITY DISPENSARY, Watling Street—Physician.
CITY OF LONDON—Examiner of Gas.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park—Physician.
CLIFDEN UNION, co. Galway—Medical Officer for the Islands of InnishCoffin and Shark, in the Clifden Dispensary District.
COVENTRY AND WARWICKSHIRE HOSPITAL—Physician.
CUNINGHAME COMBINATION POOR-HOUSE, Irvine, Ayrshire—Surgeon.
DONCASTER GENERAL INFIRMARY AND DISPENSARY—Dispenser.
FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, Holborn—Surgeon.
FOREHOE INCORPORATION, Norfolk—Medical Officer for District No. 4 and the Workhouse.
GLASGOW EYE INFIRMARY—Surgeon.
GLASGOW MATERNITY OR LYING-IN HOSPITAL AND DISPENSARY—Four Medical Officers.
GLASGOW ROYAL INFIRMARY—Physician to the Dispensary Department.
GLOUCESTER GENERAL INFIRMARY—Assistant-Surgeon.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Physician.
HOSPITAL FOR WOMEN, Soho Square—Assistant-Physician.
HUDDERSFIELD AND UPPER AGBRIGG INFIRMARY—House-Surgeon.
IRVINE, Ayrshire—Parochial Medical Officer.
KENSINGTON DISPENSARY—Resident Medical Officer.
KINGSBRIDGE UNION, Devonshire—Medical Officer for District No. 7.
LONGFORD UNION, co. Longford—Medical Officer for the Drumlish Dispensary District.
MIDDLESEX HOSPITAL—Medical Registrar; Resident Medical Officer.
NATIONAL EYE AND EAR HOSPITAL AND GENERAL DISPENSARY, Cuffe Street, Dublin—Physician.
NEWPORT UNION, co. Mayo—Medical Officer for the Achill Dispensary District.
PHILIPSTOWN AND GEASHILL, King's County—Medical Officer to the Constabulary.
PRESTEIGN UNION, Radnorshire—Medical Officer for the whole Union.
READING UNION, Berks.—Medical Officer for St. Mary District.
ROYAL BERKSHIRE HOSPITAL, Reading—Physician.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Physician; Assistant-Physician.
ROYAL INSTITUTION OF GREAT BRITAIN—Fullerian Professor of Physiology.
ROYAL KENT DISPENSARY—House-Surgeon; Surgeon for the Deptford District; Resident Medical Officer.
ST. BARTHOLOMEW'S HOSPITAL—Physician and Lecturer on Forensic Medicine.
ST. PANCRAS WORKHOUSE—Surgeon to the Female Department.
TORBAY INFIRMARY AND DISPENSARY, Torquay—Physician and Two Surgeons.
TRINITY COLLEGE, Dublin—Professor of Botany.
TULLAMORE UNION, King's County—Medical Officer for the Philipstown Dispensary District and the Geashill Branch.
UNIVERSITY COLLEGE HOSPITAL—Physician to the Skin Infirmary.
UNIVERSITY OF OXFORD—Radcliffe Travelling Fellow.
WEST LONDON HOSPITAL, Hammersmith—Senior Physician and Assistant House-Surgeon.
WEST OF ENGLAND EYE INFIRMARY, Exeter—Surgeon.
WYMONDHAM BRIDEWELL—Surgeon.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Stewart, Alexander Young, Esq., F.C.S., late Assistant to Dr. Thomas Anderson, F.R.S.Edin., Professor of Chemistry in the Glasgow University, appointed Chemical Operator to the Society of Apothecaries, in the room of Mr. George Warington, resigned.

Vacher, Francis, Esq., appointed House-Surgeon to the Birkenhead Borou Hospital, *vice* G. W. Harrison, Esq., resigned.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ......Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Opht mic, 11 A.M.—National Orthopædic Hospital, 2 P.M.
WEDNESDAY..St. Mary's, 1.15 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—St. Bartholomew's, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Great Northern, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY........Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
SATURDAY....St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 1.30 P.M.

NOTICES TO CORRESPONDENTS.

All Letters and Communications for the Journal, *to be addressed to the* Editor 37, *Great Queen Street, Lincoln's Inn Fields, W.C.*

We cannot undertake to return Manuscripts not used.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Correspondents, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

Authors of Papers, desirous of having extra copies printed for their own use, are requested to communicate with the printer, Mr. Richards, 37, Great Queen Street.

Cases for Binding the Volumes of the Journal may be had on application to Mr. Richards, 37, Great Queen Street. Price 1s. 6d. each.

Christmas in Hospitals.

1, Maddox Street, Regent Street, W., Dec., 1868.

Sir,—Having seen an extract from your valuable Journal this morning in the *Daily Telegraph*, with reference to Christmas in the London hospitals, and seeing that you propose concerts as one of the amusements to be offered to the patients, I am willing, and shall only be too delighted to sing and play gratis for any or every hospital, as I devote, or rather employ, my musical knowledge solely for charitable purposes. Should you, or the heads of any hospital or charitable institution be disposed to accept my services, I shall be happy to forward you a few criticisms and programmes, to show you that I am acknowledged to be an artiste of some merit. A reply from you, or any of the "heads of hospitals" will always find me at the above address, and will oblige Yours, etc.,

Mlle. Blanche de Landre.

Mrs. Henry Defries, Tavistock Square, London, also offers her services to give Christmas readings in hospitals.

A Puzzling Case.

Sir,—Your correspondent "Inquirer" may try an embrocation of Veratriac, half-a-drachm, rectified spirit half-a-drachm, eau de Cologne and water equal parts, up to six ounces, to be used twice or thrice a day. It must cause a prickling sensation. The lady should take at the same time tincture of valerian and assafœtida in suitable doses. I am, etc.,

10 Charlotte Street, Portland Place, Dec. 1868. F. Oppert, M.D.

Cambridge Pass Lists.

M.D., Cambridge.—The lists were not forwarded to, or received by, us. Perhaps our correspondent will communicate with the registrar on the subject.

J. W. L.—We have not any at present, but will endeavour to procure some for our correspondent.

M. A. R. is thanked for her useful enclosure.

J. A., Leeds, will find the reference he desires in the index of the present volume under the head "Hair-dye."

G. H. S. wishes to know whether a single surgical qualification is sufficient under the Factories' Extension Act.

Notice to Advertisers.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. Richards, not later than *Thursday*, twelve o'clock.

Treatment of Flooding.—A correspondent writes as follows: "I was suddenly called to a case of flooding by a practitioner of large experience, who, having used cold affusion, plugging, friction of the uterus, and other manipulations, was alarmed by its obstinate recurrence. The placenta had been removed; and the womb would contract under pressure, or cold, but relaxed again immediately. As time would have been lost in procuring ice, I laid a wet napkin across the woman's loins, and directed three or four puffs upon it from the nozzle of a pair of bellows. She shivered, and the bleeding stopped for the instant. I repeated these jets, once or twice in a minute, for nearly an hour, when uterine contraction was established, and the hæmorrhage ceased. I have done the same in epistaxis with good effect; and think the bellows may prove useful in some surgical emergencies."

"Black Jack."—Messrs. Diprose and Bateman, of Portugal Street, have just published a parochial history, in which you will find an account of this haunt of Joe Miller; and also of the "Bull's Head" in Clare Market, where the founder of the Radcliffe Library and Museum was carousing when he received news of the loss of £5000 venture, and philosophically remarked that he had "only as many steps to go up to make himself whole again".

Resuscitation after Chloroform Syncope.

Sir,—A very useful and valuable lecture on Chloroform Administration, by Billroth of Vienna, appears in the journals, and cannot fail to make its way into Braithewaite and other text-books. It may be satisfactory to your innumerable readers to note that these views of the Vienna school, in almost every particular, agree with the experience of the best observers in London hospitals. It is because I think he undervalues electricity as the best means of resuscitation or artificial respiration, where the Marshall Hall plan fails, that I trouble you with these few lines. Billroth admits its usefulness; but remarks, that electricity is seldom or never at hand when wanted in chloroform accidents. This may be partly true; but still there are few hospitals where there is not an ordinary Faradisation box with magnet; and it is rather disheartening to the conscientious man who carries such a box with him to operations, to be told that, because electricity has been misapplied and then distrusted, and is seldom or never at hand and need not be tried, that, therefore, it is unimportant. I have seen and studied considerably over ten thousand chloroform administrations. I have never had an accident of a fatal kind; but I am quite satisfied I have seen or heard of at least six patients rescued from the grave by the action of electricity to the diaphragm and phrenic nerves.

Sackville Street, Nov. 1868. I am, etc., Charles Kidd, M.D.

P.S.—A pupil of Rokitansky's, well known to most surgeons in London, told me he had seen at least twenty cases of death from chloroform in Vienna in his day. The Austrian Government were so frightened that they established particular "mixtures" of ether and chloroform by Order in Council; but Billroth now says the idea is absurd. He has yet to learn, however, that ether and chloroform are best given unmixed and alternately. I would only add, that M. Giraldès of Paris, the best authority there on anæsthetics, agrees entirely with Billroth's views. We must be nearing the port of safety, when all the best pilots are agreed.

The Generation of Sulphurous Acid.

Sir,—In answer to the inquiry of "An Associate", as to the best method of generating sulphurous acid for fumigation, etc., I venture to mention the plan which, after trying the two means described by Dr. Dewar—namely, sprinkling flower of sulphur on hot cinders in a shovel, and igniting it in a patty-pan by means of a spirit-lamp placed underneath the pan—suggested itself to my mind as the simplest and best. The plan, which I now always recommend, I find every one can understand and perform, and is accompanied by no odour save that of pure sulphurous acid. I give my instructions in words to this effect. Get some roll brimstone, break it into pieces of about the size of peas; put a teaspoonful of these pieces on an old plate, or saucer, or jam-pot turned upside down; light it with a match, and let it burn out. By this means, sulphurous acid gas is generated for twenty minutes; whereas flower of sulphur burns out in a few minutes. In phthisis, I prescribe it twice or three times a day; in many cases, directing that the sulphur be burned for the last time as the patient is getting into bed, as it soothes to sleep, allays cough, and checks night-sweats. In fevers, I prescribe the fumigation every third or fourth hour, according to the severity of the case or age of the patient.

Fumigation of cloths, etc., is performed by spreading out the articles over chair-backs or an open clothes-horse, and igniting a larger quantity of brimstone under them. I usually recommend that half the prescribed dose of sulphur be burned the first time the patient uses it, as it generally, at the commencement, excites cough. Many people do well to shut their eyes during the operation, to avoid a sore feeling it is liable to occasion in the conjunctiva.

It is well to see that plants, gilt frames, and silver ornaments, are not retained in a room where sulphurous acid gas is frequently generated. I am, etc.,

Clifton, November 1868. Charles Steele.

Nitrate of Silver Injections in Spermatorrhœa.

Sir,—I have been so satisfied with the effects of ten-grain to the ounce solution of nitrate of silver as an injection in the treatment of spermatorrhœa, that I have scarcely ever used a stronger one; and I was not a little surprised at seeing my name quoted in a late number of your Journal as the authority for employing a ten-grain to a *drachm* solution. On looking back through the last four editions of my book on *The Reproductive Organs* (where the treatment of spermatorrhœa by caustic is recommended), I find that the ten-grain to the ounce solution is the one always prescribed. In an old copy of the edition of my work on the *The Generative and Urinary Organs*, published in 1851, I find that an error crept in through the carelessness of the printer in using the symbol ʒj, instead of ℥j; proving that an author ought to write quantities in words, and not use symbols.

I beg that your correspondent will not treat his patient by aid of this old edition; for I find an instrument there recommended, a syringe with a silver tube, long since superseded by one made entirely of glass. This and many other improvements in treatment have necessarily ensued from seventeen years of added experience. I am, etc., W. Acton.

Queen Anne Street, Cavendish Square, November 1868.

Chloride of Mercury and Sulphuretted Hydrogen.

Sir,—I was somewhat surprised at certain statements made in a paper on "The Use of Chloride of Mercury in Sulphuretted Hydrogen Deposits in the Skin", which appeared in your issue of the 24th ultimo.

In the first paragraph, we are not only reminded by the author of the well known fact, that many diseases of the skin owe their origin and continuance to retention and decomposition of the secretion of the sebaceous glands, and that this secretion is an oily hydrocarbon; but we are informed that "the hydrocarbon decomposes in contact with the skin; sulphuretted hydrogen is evolved, which, on exposure to light at the orifice of the duct, becomes black." The latter statement announces a fact quite new to modern chemistry; but perhaps not more novel than to know that, as we are told in the third paragraph, "in the preparation of sulphide of mercury, vermilion, it is necessary to add to a solution of the chloride of mercury an excess of sulphuretted hydrogen gas."

Now, if the author will put himself to the trouble of spending half an hour in a chemical laboratory, he will readily discover two facts: Firstly, that sulphuretted hydrogen does not become black on exposure to light; and secondly, that you do not obtain the red sulphide cinnabar by adding excess of sulphuretted hydrogen gas to a solution of chloride of mercury, but that the resulting body is black. And, in consideration of the inaccuracy of the author's "facts", we cannot be surprised at the fallacy of his arguments and the absurdity of his conclusions.

I am, etc., J. D. T.

J. Daw (Islington).—The person named has no right to sign M.D. after his name; he is only a "Dr." by courtesy. The celebrated Dr. Lockyer was a great empiric (*temp.* Charles II). His reclining effigies in thick curled wig and furred gown may be seen in the Lady Chapel, Southwark, with his epitaph:

"His virtues and his pills are so well known,
That envy can't confine them under stone."

The Royal Medical Service.

Sir,—Knowing your willingness to advocate the cause of the Army Medical Department, I venture to bring before your notice the position of a large number of assistant-surgeons of the British Medical Service, as compared with their more fortunate brothers of the Indian Service, which, I consider, deserves a full and careful inquiry by the authorities, with a view of improving their status and emoluments while serving in this distant, but important, part of Her Majesty's dominions. I am convinced, from what I have seen and heard since I came out to this country, now three years ago, that Government made a great mistake in not carrying out Sir Charles Wood's scheme for amalgamating the two medical services, which would have effectually stopped all unpleasant comparisons, and jealousy towards our more favoured brethren in the Indian Medical Service. It must strike anyone who will give the subject a few minutes' consideration, as being a great anomaly that we of the Royal Service, who, from the day we land in the country, have to treat British soldiers and their families, should receive less pay than our Indian brethren, whose charge in a native regiment, and whose work in every particular (including office work), is much less than ours, and of much less importance to the state. The principal reason assigned for such a wide and invidious difference is, that the members of the Indian Service are tied down to residence in this country; but their grievance on this ground is very materially removed by the new furlough regulations, which allow an assistant-surgeon, after eight years' service in India, to go home for two years' leave, on a very handsome allowance, and return with renewed energies, and the certain prospect of promotion to the rank of surgeon after two years' more service, making ten years' actual service in India with the rank of assistant-surgeon.

Now take the case of one in the Royal Service. If he happen to be in an infantry regiment on its arrival in this country, he will, in all probability, have to serve with it from ten to twelve years, unless he can effect an exchange into the "medical staff", in which case, if he have put in five years' Indian service, he can apply to be sent home; but this is not always easy to do, as many prefer the staff to being in a regiment. An assistant-surgeon of a regiment has little or no chance of getting home, except on "sick certificate", unless he has some interest with the Deputy Inspector-General of Hospitals of the circle in which he may be serving, when, perhaps, he may get sent home "on duty" with troops, and will have to rejoin his regiment after spending three or four months with his friends; and, should he be sent home sick, if he is not able to rejoin at the expiration of six months' leave, he is placed on the "staff" at home, and another man is gazetted in his place. Since the new warrant was published in June, increasing the pay of the subordinate medical department, attention has been drawn to the small pay of assistant-surgeons of the Royal Service; and numerous letters have been published in the *Delhi Gazette* on the subject, two of which I now enclose for your perusal, as they state pretty clearly the facts of the case, and the means by which our grievances may be removed; viz., by equalising the pay of assistant-surgeons of the two services, and giving brevet rank of surgeon after twelve years' service. Hoping you will find room for my letter in your widely circulated Journal, and render us your powerful aid by advocating our cause. I am, etc.,

Bengal, Aug. 1868. An Assistant Surgeon Royal Service.

We are indebted to correspondents for the following periodicals, containing news reports and other matters of medical interest:—The Wiltshire County Mirror, Dec. 16th; The Lincolnshire Gazette, Dec. 19th; The Western Morning News, Dec. 17th; The Aberdeen Journal, Dec. 16th; The Aberdeen Herald, Dec. 19th; The Aberdeen Free Press, Dec. 22nd; and The Shadow, Dec. 19th.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. W. Claxton, London; Dr. Brunker, Dundalk; Dr. J. K. Spender, Bath; Mlle. Blanche de Landre, London; Mr. C. A. Solbi Clerk, London; Dr. J. G. Glover, London; Mr. Clarkson, Staffordshire; Dr. A. R. Graham, Weybridge Mr. J. Anderson, Leeds; Dr. Gray, Oxford; Dr. W. Fox, London; Mr. Defries, London; Dr. Gairdner, Glasgow; Dr. J. Sykes, Doncaster; Mr. Wasdale Watson, London; Dr. Kirby, London; Messrs. Mitchell and Co., London; Mr. Higginbottom, Nottingham; Dr. Fenton, Liverpool; Dr. Beveridge, Aberdeen; Dr Trollope, St. Leonards-on-Sea; Dr. Peacock, London; Dr. Grainger Stewart, Edinburgh; Mr. W. Adams, London; Mr. Berkeley Hill, London; Dr. Dobell, London; Dr. Belcher, Dublin; Dr. J. Murray, London; Dr. Burrows, London; Mr. Cæsar Hawkins, London; Dr. Washbourn, Gloucester; Dr. Priestley, London; Mr. Fleischmann, Cheltenham; Dr. Humphry, Cambridge; Mr. Edmonds, London; Mr. Lowndes, Liverpool; Mr. W. St. J. Coleman, Melton Mowbray; Dr. Lankester, London; Mr. Chapman, Oxford; Mr. Lock, London; Mr. Fitzpatrick, Liverpool; and Dr. Thomson, London; and Dr. Dyce Duckworth.

LETTERS, etc. (with enclosures) from:—

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